**2014 NEI v1 Draft Training - Questions and Answers**

Module 1 - Overview

1. On Slide 19, do you have to contact the inventory developer twice, once for QA and once for Production submissions?
   * **No, the QA Environment is always open for you to check your submissions. Once you receive a clean feedback report, you can then contact the inventory developer to open the Production window for official submission.**
2. Will there be the same presentation for 2014v2 and will SLTs have the same opportunity to comment on the data?
   * **We have not considered whether similar webinars will be generated for 2014v2. However, it seems prudent that for sectors that undergo methodology changes or revised estimates between v1 and v2, to allow a similar review and comment period. We will continue our outreach to SLTs in the time between v1 and v2 on this issue.**
3. POTW Estimates Tool – If new factors will be added to the tool, will the tool be available to re-run SLT data before the comment period closing in version 2?
   * **Yes, updated tools should be available prior to the close of the comment period in v2. If there are issues with the tools, we will work with SLTs on an individual basis.**
4. In looking at a process level report, we (SLT) saw additional lead emissions being added with the EPA airport data. A lot of SLTs will be unaware of this additional lead.
   * **EPA is attempting to account for all the lead emissions from aviation gas (used exclusively in in spark-ignited internal-combustion (piston) engines to propel aircraft, as opposed to jet fuel, which is used in most commercial aircraft).  To do this, we’ve included lead emissions at county FIP =777 in every state to account for the remainder of aviation gas burned in-flight, outside the landing-and-take off cycle.  These emissions are at elevations above 3000 feet and are not used in any EPA atmospheric modeling projects at this time.**
5. How are EPA landfill emissions estimated?
   * **EPA uses GHG reported methane as a surrogate for activity and AP-42 emission factors. The documentation for this process is the same which was provided for the 2011 TSD.**
6. What does it mean if the dataset\_name is “Multiple”?
   * **If the dataset name field says “multiple,” you’re looking at something with shapefiles (like CMV & Rail), where the SMALLEST resolution is lower than a county.**
7. Does EPA want my updated 2014 data? I got new activity numbers in, so I revised my numbers. It doesn’t make much of a difference, but I’d like the NEI data to match my state data.
   * **If these are wholesale inventory changes based simply on activity data going from (for example) year 2013 to 2014, then no, we would rather these broad changes not be submitted to EIS QA for v1. EPA will also be updating some activity data for v2. We do not want to completely redo our QA checks, PT-NP reconciliation and comparison reports in the limited time between the draft and final v1. Please keep any changes limited to those that are “significant” or for nonpoint, for sectors that EPA was late in providing (e.g., livestock, fertilizer, RWC, etc).**
8. Does EPA want my datasets that they don’t provide estimates for?
   * **To the extent that a complete inventory is submitted, yes. From the AERR:**

All stationary source emissions that are not reported as point sources must be reported as nonpoint sources. Episodic wind-generated particulate matter (PM) emissions from sources that are not major sources may be excluded, for example dust lifted by high winds from natural or tilled soil. Emissions of nonpoint sources should be aggregated to the resolution required by the EIS as described in the current National Emission Inventory (NEI) inventory year plan posted at *http://www.epa.gov/ttn/chief/eiinformation.html.* In most cases, this is county level and must be separated and identified by source classification code (SCC). Nonpoint source categories or emission events reasonably estimated by the state to represent a de minimis percentage of total county and state emissions of a given pollutant may be omitted.

1. I can’t find “2014 NEI v1” in the data tagging report section. Can you help?

* **We don’t tag the selection itself; we tag individual datasets that go into the selection.  So instead of looking for 2014 NEI v1, you should look for your SLT dataset or one of the EPA datasets for tagged data.**

1. Should I plan on resubmitting my HAPs if the solvent tool HAPs were incorrect?
   * **If your VOC number doesn’t change, then you can resubmit your HAPs after the solvent tool is revised in v2. We updated the HAP aug factors prior to running HAP augmentation, so those numbers would be the same as what will be in the solvent tool v2.  We plan to tag out any HAPs submitted by SLTs using the solvent tool for v1, and then HAP augmentation would replace the values.**

**Module 2 – HAP Augmentation and Chromium Speciation**

1. What is the underlying source of the factors used in the HAP augmentation; is it WebFIRE and are the ratios of the WebFIRE emission factors normalized is that ratio after the normalization?

* **For point sources the vast majority of the ratios are based on emission factor ratios of HAP to CAP computed based on the emission factors in WebFIRE. You can see that in the “**[**Augmentation Profile Names and Input Pollutants**](https://eis.epa.gov/eis-system-web/augmentation/profile/inputList.html)**”. To develop the ratios, calculations made to the WebFIRE data to convert units of the HAP or CAP emission factors so that they are identical, and to renormalize the factors for situations in which the sum of the ratios of HAP VOC exceed 1 for a particular profile. Details on the approach are provided in the 2011 NEI v2 technical support document, Section 3.1.5 (**[**https://www.epa.gov/sites/production/files/2015-10/documents/nei2011v2\_tsd\_14aug2015.pdf**](https://www.epa.gov/sites/production/files/2015-10/documents/nei2011v2_tsd_14aug2015.pdf)**). A few factors were removed between the 2011 NEI v2 and 2014 NEI v1 due to comments received during the 2011 NATA review – these are the factor for output pollutant ethylene dichloride from gasoline-related SCCs and some facility-specific factors were added.**

1. What are the most egregious cases that HAP VOC ratios, before normalization, don’t add up to 1.

* **Here is a list of all WebFIRE-based SCC’s which had to be renormalized so that the sum of HAP VOC would not exceed 1. The most egregious cases have the lowest factors.**

| SCC | SCC Long Name | HAP to CAP Ratios.Comment |
| --- | --- | --- |
| 10100901 | External Combustion Boilers; Electric Generation; Wood/Bark Waste; Bark-fired Boiler | Ratio of WebFIRE Factors normalized by a factor of .9925 |
| 10100902 | External Combustion Boilers; Electric Generation; Wood/Bark Waste; Wood/Bark Fired Boiler | Ratio of WebFIRE Factors normalized by a factor of .9925 |
| 10100903 | External Combustion Boilers; Electric Generation; Wood/Bark Waste; Wood-fired Boiler - Wet Wood (:=20% moisture) | Ratio of WebFIRE Factors normalized by a factor of .9925 |
| 10100908 | External Combustion Boilers; Electric Generation; Wood/Bark Waste; Wood-fired Boiler - Dry Wood (<20% moisture) | Ratio of WebFIRE Factors normalized by a factor of .9925 |
| 10200902 | External Combustion Boilers; Industrial; Wood/Bark Waste; Wood/Bark-fired Boiler | Ratio of WebFIRE Factors normalized by a factor of .9925 |
| 10200901 | External Combustion Boilers; Industrial; Wood/Bark Waste; Bark-fired Boiler | Ratio of WebFIRE Factors normalized by a factor of .9925 |
| 10200903 | External Combustion Boilers; Industrial; Wood/Bark Waste; Wood-fired Boiler - Wet Wood (:=20% moisture) | Ratio of WebFIRE Factors normalized by a factor of .9925 |
| 10200908 | External Combustion Boilers; Industrial; Wood/Bark Waste; Wood-fired Boiler - Dry Wood (<20% moisture) | Ratio of WebFIRE Factors normalized by a factor of .9925 |
| 10300902 | External Combustion Boilers; Commercial/Institutional; Wood/Bark Waste; Wood/Bark-fired Boiler | Ratio of WebFIRE Factors normalized by a factor of .9925 |
| 10300903 | External Combustion Boilers; Commercial/Institutional; Wood/Bark Waste; Wood-fired Boiler - Wet Wood (:=20% moisture) | Ratio of WebFIRE Factors normalized by a factor of .9925 |
| 10300908 | External Combustion Boilers; Commercial/Institutional; Wood/Bark Waste; Wood-fired Boiler - Dry Wood (<20% moisture) | Ratio of WebFIRE Factors normalized by a factor of .9925 |
| 20200253 | Internal Combustion Engines; Industrial; Natural Gas; 4-cycle Rich Burn | Ratio of WebFIRE Factors normalized by a factor of .9238 |
| 30700661 | Industrial Processes; Pulp and Paper and Wood Products; Particleboard Manufacture; Particleboard Board Cooler, Urea-Formaldehyde Resin | Ratio of WebFIRE Factors normalized by a factor of .8291 |
| 30700785 | Industrial Processes; Pulp and Paper and Wood Products; Plywood Operations; Hardwood Plywood Press: Urea-formaldehyde Resin | Ratio of WebFIRE Factors normalized by a factor of .8801 |
| 30700960 | Industrial Processes; Pulp and Paper and Wood Products; Medium Density Fiberboard (MDF) Manufacture; Batch Hot Press, UF Resin | Ratio of WebFIRE Factors normalized by a factor of .7281 |
| 30700983 | Industrial Processes; Pulp and Paper and Wood Products; Medium Density Fiberboard (MDF) Manufacture; Sander | Ratio of WebFIRE Factors normalized by a factor of .7857 |
| 30701410 | Industrial Processes; Pulp and Paper and Wood Products; Hardboard (HB) Manufacture; Tube dryer, direct wood-fired, blowline blend, PF resin, hardwood | Ratio of WebFIRE Factors normalized by a factor of .7571 |

1. What concerns do we have on the underlying data and thoughts about HAP augmentation in the future?

* **HAP augmentation does have limitations, as it was pointed out, HAP and CAP from WebFIRE do not necessarily use the same test methods. We are also aware that there are many similar SCCs that don’t always share the same set of emission factors/output pollutants. We do not apply ratios based on emission factors from similar SCCs other than for mercury from combustion SCCs. Ideally, we would like to get HAPs reported from SLT or get the data from other sources (compliance data from rule). Possibly the Consolidated Air Emissions Reporting E-Enterprise project will help bring together air emissions data from different sources that could be used for the NEI. Until these other ways are fully implemented and result in more complete HAP data, we will continue to use HAP augmentation to improve the completeness of the NEI.**

1. Any efforts to try to prioritize categories to improve?

* **Yes we do prioritize categories based on risk and known issues with the data.**

1. Do we use AP-42 data quality to choose the ratios?

* **We do not choose ratios based on data quality but we have removed some factors based on results of the 2011 NATA review. For example, we discovered ethylene dichloride was being augmented for SCCs related to gasoline distribution. This pollutant was associated with leaded gasoline which is no longer used. Therefore we removed it from our EIS HAP augmentation between 2011 NEI v2 and 2014. We also got specific facility and process augmentation factors which we incorporated into EIS for 2014.**

1. How do you handle HAP aug that provides high values that you tag that are higher than the max value reported for a specific SCC-pollutant combination? Do you follow up on these to see if it is a high criteria air pollutant? Should states be looking at that?

* **We are currently tagging these and while this is not something we focus on for the NEI review, states do have access to the EPA tagged data via reports in EIS. Possibly states should be looking at these instances as they may signify a CAP was overestimated, or there was another issue (bad SCC).**

1. You will not augment a HAP at a facility if the pollutant is reported anywhere at a facility, is that correct? Do you agree that it will result in an underestimate?

* **Yes we tag our augmented results (don’t use them for the NEI) if the HAP is already reported at anywhere at the facility (or if it comes from TRI). This is one of the business rules, and it is true that this business rule can result in an underestimate if the process that was tagged isn’t covered by the HAP at a different process. We do this because we don’t know to the extent to which some states may group their HAPs into a process and it ensures that the HAP aug will not double count.**

**We still do the calculation and the value is available in the HAP aug dataset. If a state wants to use it, the best way is to for the state to submit it or work with the point source lead Ron Ryan on other potential options.**

1. Can you differentiate between SPECIATE and HAP aug?

* **SPECIATE provides species of Total Organic Gases which are typically used by Air Quality modelers that to generate the model species used for modeling. Some of those species are HAPs and they can be used for HAP aug but we chose to use the WebFIRE data for point sources as a more comp**

1. Are MATS data still used for the 2014 NEI?

* **We use it for gap filling but we no longer use it ahead of the state data. These data are not based on the HAP aug/chromium aug approach**

1. Are the HAP augmentation used ahead of state data?

* **No**

**Module 3 – PM Augmentation and TRI Data**

1. Can you explain what PM-FIL and CON are?
   * **Filterable (FIL) particles include any particulate matter that may be physically captured on a filter during sampling.**
   * **Condensable PM (PM-CON) is the matter which exists in the gas phase at stack conditions but condenses to sub-micron liquids or particles after exiting the stack and being cooled to ambient conditions. All condensable PM is smaller than 2.5 microns in diameters, so PM-CON represents condensable matter for PM10 and PM2.5.**
   * **Two new bullets on slide 5 were added to reflect FIL and CON definitions.**
2. Slide 5 is confusing where and could mean addition of the components listed or could mean each individual pollutant checked individually. Since PM25-PRI = PM25-FIL + PM-CON, one could read PM25>= PM25-FIL and PM-CON would make sense, but the earlier PM10-PRI >= PM10-FIL, PM25-PRI and PM-CON is a different story.
   * **We agree. This slide has been modified to reflect that the check is simply to ensure that PM10-PRI exceeds each of these individual components: PM10-FIL, PM25-PRI and PM-CON. Similar language was added to the PM25-PRI check.**
3. Are the Events (large fire) categories being augmented for PM?
   * **No. These sources are not in the tool, nor do we plan to augment them in the future.**
4. TRI-aug, are there plans to begin using facility operating statuses in the future?
   * **There are no current plans to use EIS’ facility operating status to decide if TRI emissions should be included for the facility in EIS or to adjust any nonpoint estimates.  We would be interested in hearing of any concerns about how the current TRI augmentation process may be double-counting other NEI emissions and considering options for reducing that possibility if it exists.**
5. Is the intent for SLTs to use the PM Aug Tool to update their data prior to submission?
   * **Please do not use the PM Aug Tool for v1 edits between now and July 15th. We wanted SLTs to report PM10-FIL, PM15-FIL, and CON (where applicable) –that’s it. If you could not give us those for some reason, giving us PM10-PRI and PM25-PRI was equally fine. If you could not give us either of these, then we accepted whatever you could provide (BY JAN 15th 2016), and then we ran the tool with many caveats to create the inventory here at EPA.**
   * **As indicated in the presentation, we have longer-term goals to absorb a version of this tool with updated ratios (emission factors) and improved interface into the EIS for the 2017 NEI. We might have some updates for v2 of the 2014 NEI as well.**
6. The EI staff here have a question for you regarding how to apply control efficiencies to PM condensible when we review the 2014 NEI. At the time when we made a decision on the issue for our new emission inventory system, CEDR, we consulted with our permit engineers and enforcement staff. The approach now assumes PM control devices, such as fabric filters, only control PM filterable, not condensible. Could you tell us if you have a different opinion?   Looking at the 2014 NEI augmentation, we found EPA had many good catches. Thanks. However, the augmentation results for PM condensible were based on controlled PM10 filterable, not uncontrolled PM10 filterable. For example, for SCC30400711, Agency ID 13700073, EU ID EU009, Process ID EU009PD001, the controlled PM10 filterable (with a control efficiency of 99%) were used to calculate PM condensable. Is it right?
   * **The PM Augmentation Tool (**[**https://www.epa.gov/air-emissions-inventories/emission-inventory-tools**](https://www.epa.gov/air-emissions-inventories/emission-inventory-tools)**) contains a Conference Paper that describes how that tool works.  As a starting point, it is true to say that if the tool has to gap-fill a Condensable value, it does calculate it from one of the “end-of-pipe” release amounts that you reported to EIS.  So if you reported only PM10-filterable and PM2.5-Filterable, the PM Aug routines would use your PM10-Fil value as one of its inputs.  If that process had a PM control device indicated in EIS, the PM Augmentation routine is also taking that into account, by using a table of ratios of PM10-Fil to CON that varies depending on control device codes and SCC reported.**