

Emissions Data Model PDT Research and Development (R&D) Project Team Report

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I. Project Overview

As part of the Combined Air Emission Reporting (CAER) project, the EPA and State, Local and Tribal (SLT) air programs are working together to identify opportunities to reduce redundancy, improve quality, and increase efficiency in the reporting of air emissions from facilities. As part of CAER, The Product Design Team (PDT) comprises members from SLT and EPA programs that are carrying out specific R&D projects that further the implementation objectives of the overall CAER project. The PDT has the responsibility for

- Segmenting the CAER implementation work
- Prioritizing supporting research activities
- Setting up the smaller Research and Development (R&D) teams to do the work
- Setting the project scope and expectations for these teams
- Enabling these teams to be successful
- Integrating the outcomes of the R&D teams into future activities and the proposed vision for the CAER future state.

The R&D projects involve a range of policy and program research activities related to identifying program needs, analyzing business rules and quality assurance/quality control procedures across programs, review of program regulatory requirements, and other program characteristics and functions that are important considerations for creating a shared emissions system under the CAER proposed future state.

The Emissions Data Model project team researched and documented emissions-related data elements and functionality needed to support a possible common emission form (CEF) reporting design structure in a shared emissions platform. The identified state-specific data elements will be sufficient to allow for broad usage by SLTs and applicable EPA reporting programs.

The SLT team members distributed an on-line survey to emissions inventory contacts nationwide, including localities and tribes. The team received 50 responses (49 are represented in the charts below). The results are summarized in this report. Select comments from SLT programs are also included with the summary data. Additional fields and pollutants submitted by SLT programs are documented in the Appendices.

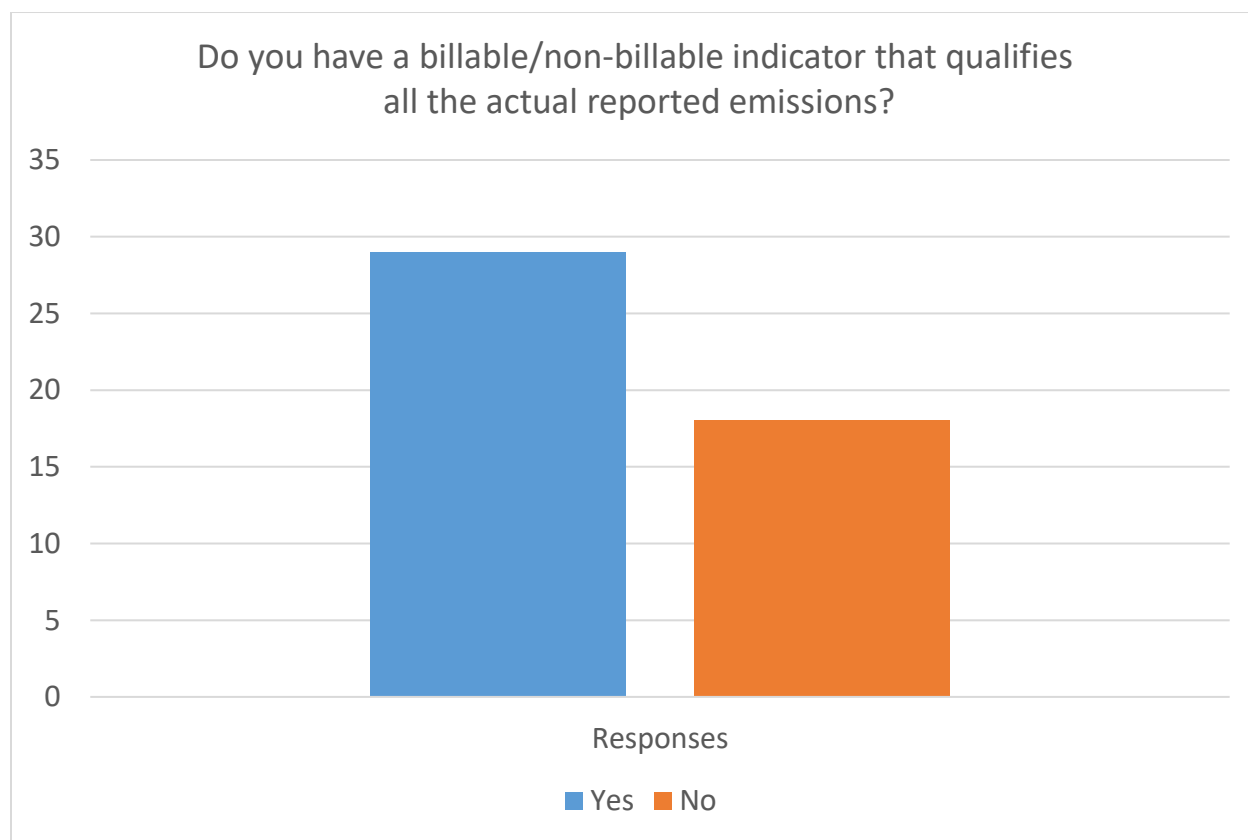
II. Results and Determinations from State/Local/Tribal Survey

Summary of Emissions Data Model Survey Responses for Each Question.

Full responses and comments for the Data Model Survey are available in Appendix A.

Survey Question 1: Do you have a billable/non-billable indicator that qualifies all the actual reported emissions?

Summary of responses: Billable means subject to annual compliance fees (e.g., for Title V permits). There are two billable types: facility and/or pollutant specific. Over 60% denoted that they have an indicator as to whether reported emissions were billable or non-billable. Several State agencies indicated that they had an internal pollutant flag. The type of indicator will be clarified with the respondents in Phase 2.



Responses: Yes – 29 No - 18

Survey participant comments:

- Once the emission inventory is approved by staff, then the billable pollutant emissions are flagged and summed in the fees module. Title V facilities are invoiced based on these emissions.
- We use SLEIS which calculates fees for selected pollutants internally to the software, but there is no indicator visible to the user. There is a fee summary sheet for reported pollutants for which

fees are charged. The summary sheet shows each pollutant with its associated fee, plus total fees.

- We have two categories for actual emissions, Regulated and Total, which are input per process. Billable criteria emissions in our system are listed as Regulated and as Total for a process. Non-regulated (not billable) are listed only as Total.
- We require additional emission reporting (ex. CO) but do not collect fees for those emissions. We have noted in the emission/fee form that operators are required to report CO emissions, but those emissions will not be used in fee calculation.
- Annual Title V fees are calculated from our system based on actual reported emissions for marked pollutants. Marked pollutants are those which have a numerical emissions limit in their permit.

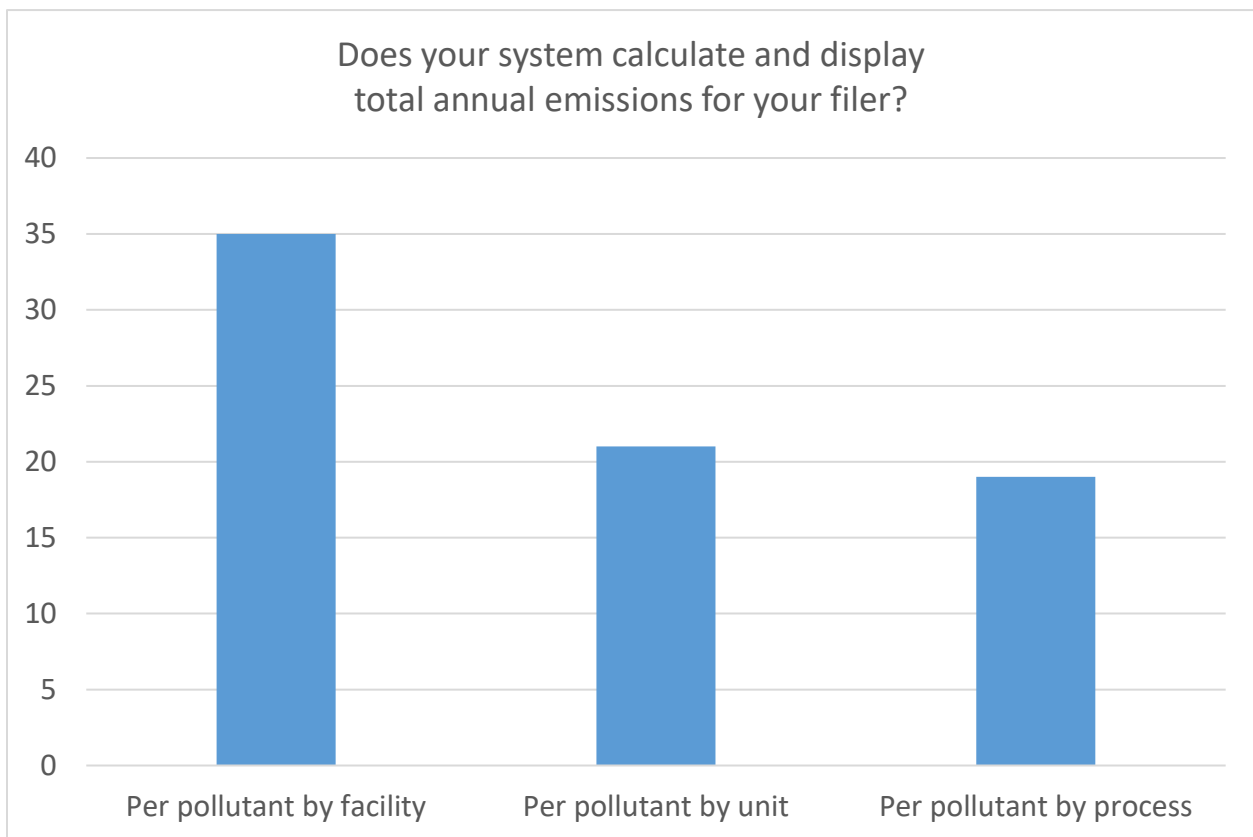
Recommendations and Considerations for Next Steps

Step 1. *Follow-up with those respondents who indicated they had a flag to see if this is on the pollutant, facility or both. Also determine whether flag is visible to the user.*

Step 2. *Consider adding to CEF if indicator is typically visible to the user.*

Survey Question 2: Does your system calculate and display total annual emissions for your filer?
Please select all that apply.

Summary of responses: The above question was meant to determine whether an SLT system used calculators to estimate emissions based on the filers input. After reviewing the responses, we believe that the question was not understood by the respondents. Some responses were regarding automated emission calculation functions in their systems, while others commented on the capabilities of their reporting system to show emissions. It is this team's belief that a calculator within the CEF is an important functionality but more research is needed.



Responses: Facility – 35 Unit – 21 Process – 19 All three levels – 6

Survey participant comments:

- If the facility/filer enters emission factors on the process screen of, then the system will calculate and display total annual emissions at the process level. The system totals the emissions reported at the facility level and groups those pollutants (total for each metal, glycol ethers, etc.).
- Our version of SLEIS automatically generates and stores emissions reports per pollutant under each facility (source) record in both html format and as a csv file. SLEIS also generates and

stores emissions reports per emission unit and per release point (stack) for each facility in both html format and as a csv file. SLEIS does not generate per-pollutant reports for emission units or processes. There is a facility process emission report which is available only as a csv file and could be used to manually generate the per-pollutant reports.

- We do not have a system for submitting air data. We have a database that stores emissions by process, by chemical, by facility. Only emissions statement sources are required to calculate emissions. All the small sources submit data to us for calculation. Several spreadsheets and tools have been created to do this. The calculated and verified data is then submitted into our database.

Recommendations and Considerations for Next Steps

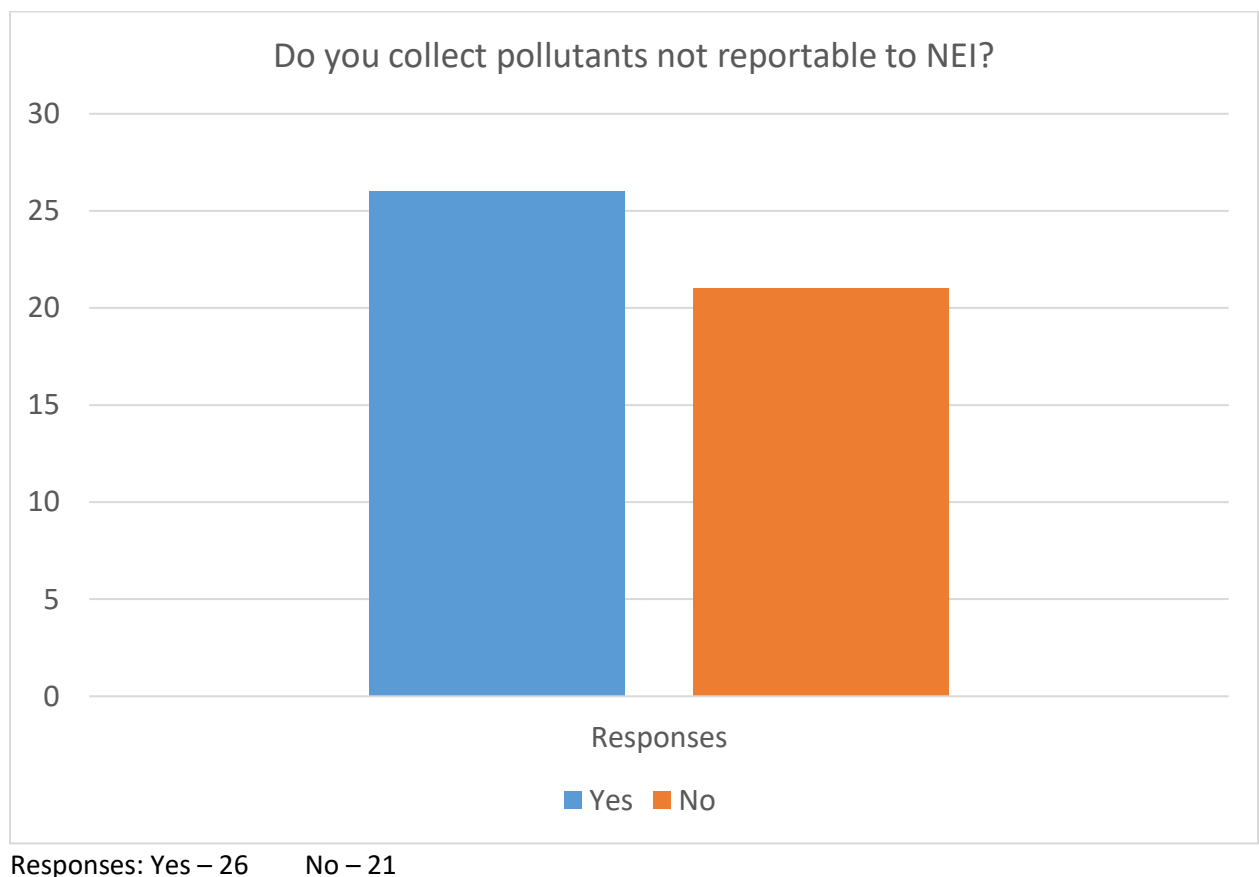
Step 1. *Follow up with SLTs regarding current emissions calculation capabilities for users.*

Step 2. *Follow-up with Minnesota on per-pollutant speciation.*

Step 3. *Research the types of calculators that could be made available as part of the CEF.*

Survey Question 3: Do you collect pollutants not reportable to NEI? If so, please provide a list of those pollutants (e.g., bioavailable Cr, MEK, acetic acid, nitric acid).

Summary of responses: There were 891 additional pollutants that are accepted by SLTs from facilities but are not reported to the Emissions Inventory System (EIS). Most of these additional pollutants (808) were from four different respondents (MN, WI, DE and OK), with each pollutant having only one or two State responses. The remainder of the respondents reported the additional 83 pollutants. Results are included in Appendix B.



Survey participant comments:

- We collect emissions data for biogenic CO₂, and non-biogenic CO₂ equivalent (CO₂e). However, this data is not currently collected by SLEIS. It is submitted separately by facilities.
- SLEIS is our application for emissions inventory reporting. There are many pollutants (293) that can be reported in SLEIS, but are not active pollutant codes in EIS.
- We don't have any limits on what pollutants can be reported, and have many more in the database than are reported to the NEI. If a pollutant is not already in our database, a filer can request that it be added.

- Table 1 of NR 438.03, Wis. Adm. Code contains 696 air pollutants. Of the 696, 233 are NEI pollutants.
- Any pollutant can be reported, including water vapor, if the filer desires. We require unspciated VOC to be limited to 10% of the total VOC for each emitting unit in certain areas of the state. All toxic compounds must individually be listed if they are emitted at 0.1 tons.
- Filers may not necessarily report pollutants in EIS, but by pollutants for a given SCC per WebFire. Additional pollutants could come from a permit or a billing system.

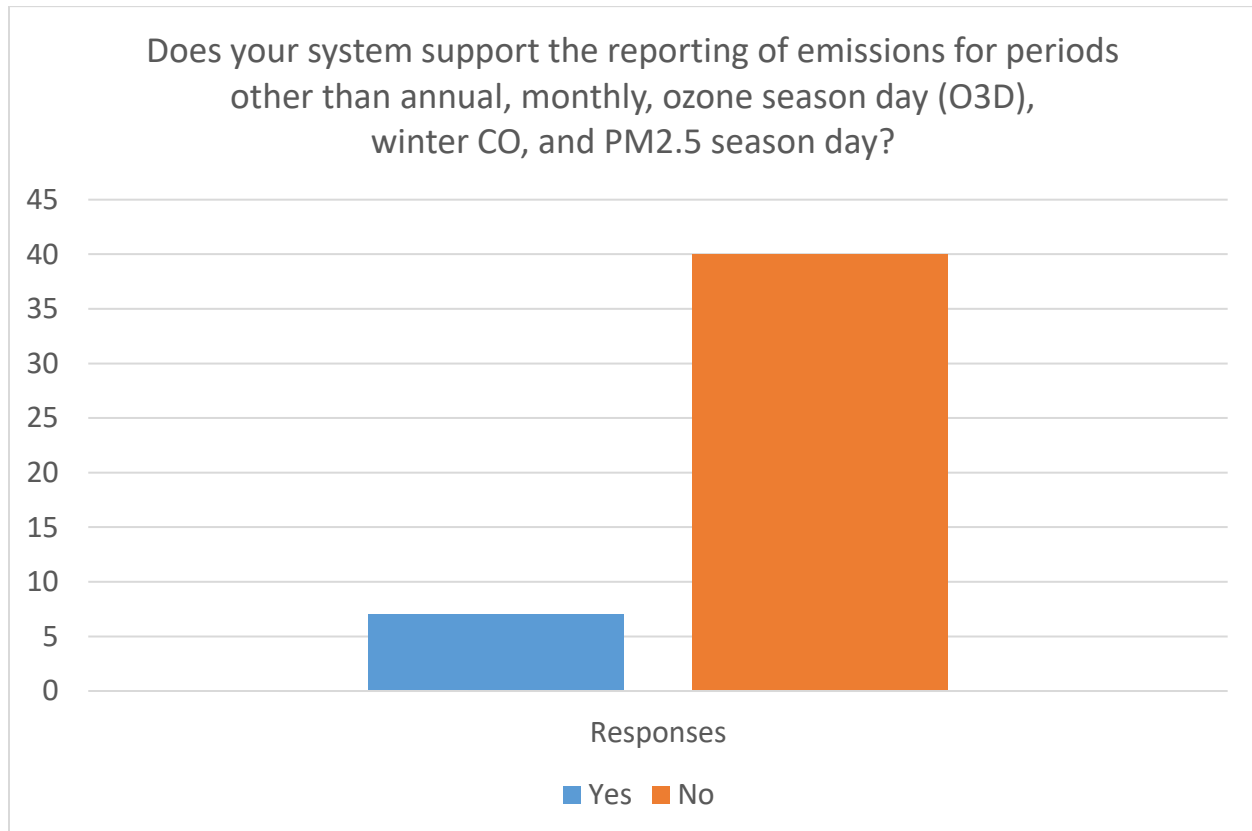
Recommendations and Considerations for Next Steps

Step 1. *Recommendation is to make all pollutants available for use on the common emissions form pollutant table. SLTs should have the option to select which pollutants meet their specific requirements.*

Step 2. *Investigate the repercussions on SLT data submissions to EIS of pollutants not used in the National Emission Inventory.*

Survey Question 4: Does your system support the reporting of emissions for periods other than annual, monthly, ozone season day (O3D), winter CO, and PM2.5 season day?

Summary of responses: While most respondents indicated that they do not support reporting periods other than annual, the EIS currently does support the option with additional options noted in the Recommendations and Considerations for Next Steps for this section.



Responses: Yes – 7 No – 40

Survey participant comments:

- *Summer Season Day (Jun/Jul/Aug) - aka Peak Ozone Season Day. We consider the Ozone Season to be May/Jun/Jul/Aug/Sept.*
- There is no restriction on what can be reported - however certain periods are requested/preferred.
- Our Facility Users enter annual emissions into their annual reports. Our routine to export data to the NEI uses a temporal profile along with seasonal throughput percentages to estimate O3D.
- System currently supports only annual reporting and our two-month "winter ozone" season reporting = Feb and March (maybe this falls under the category of "monthly" reporting, but it is specifically designed for our two-month ozone season). However, we can create and enable different reporting periods on the fly in our application.

- Since our entire state is in attainment, our system currently supports reporting of annual emissions with season operating fractions only.

Recommendations and Considerations for Next Steps

Step 1. *Investigate the possibility of adding custom reporting periods (state-specific ozone seasons) to the CEF.*

Step 2. Investigate the ability for SLTs to make ozone season reporting periods optional or required.

Step 3. Investigate the development of emissions calculators that can be used for any time period and in annual or daily units.

Survey Question 5: Does your system display the date that emission inventories are due?
Is this date displayed/saved with the emissions report?

Summary of Responses: Responses indicated that having the due date visible to the user and with the emission report were split. Data Model team felt that this would be a good addition to the CEF if the date of SLT approval could also be added.

Does your system display the date that emission inventories are due? Is this date displayed/saved with the emissions report?		
Question	Yes	No
Does your system display the date that emission inventories are due?	23	24
Is this date displayed/saved with the emissions report?	14	32

Survey participant comments:

- The due date is saved in our database but is not displayed on the emission inventory copy of record report. A report of facility due dates can be obtained from the system.
- SLEIS displays the emission inventory due date for each report on screen, but the due date is not displayed on the PDF "Copy of Record".
- The emissions report is due the same day as fees, the date the fees are due is displayed on the system generated invoice. Our emissions inventory website for facilities displays the due date of the report (set by rule).
- Our fee forms display the date operators are required to complete the form and submit the form to us. The form does not display the date the emission inventory is due to NEI.

Recommendations and Considerations for Next Steps

Step 1. Investigate adding the due date, submission date and date of SLT approval to the CEF with a mechanism for SLT to set a unique due date.

Survey Question 6: Do you collect weight % of VOC, hydrocarbon, or halogenated organic compounds (in throughput material for non-combustion units only)? Do you collect weight % of carbon?

Summary of Responses: Very few respondents collected the weight % of Carbon or VOC. Those that did used the percentage in calculations, but did not enter the data into their own databases.

Do you collect weight % of VOC, hydrocarbon, or halogenated organic compounds (in throughput material for non-combustion units only)? Do you collect weight % of carbon?

Question	Yes	No
Do you collect weight % of VOC, hydrocarbon, or halogenated organic compounds (in throughput material for non-combustion units only)?	12	35
Do you collect weight % of carbon?	3	45

Survey participant comments:

- Is required for the supporting of calculations, but these are not input into the database, would only show in the hard copy supporting documentation.
- Total Dissolved Solids (for cooling towers), Material Vapor Pressure (for VOC-containing coatings, etc.), Material Density (for VOC-containing coatings, etc.)
- If it is needed to calculate emissions entered to the system, it will be in paper or spreadsheet form showing how emissions were calculated. The actual % is not entered into the main db. Many facilities may consider this information proprietary and prefer the information is kept separately.
- We allow VOC weight % to be reported, but we don't require it.

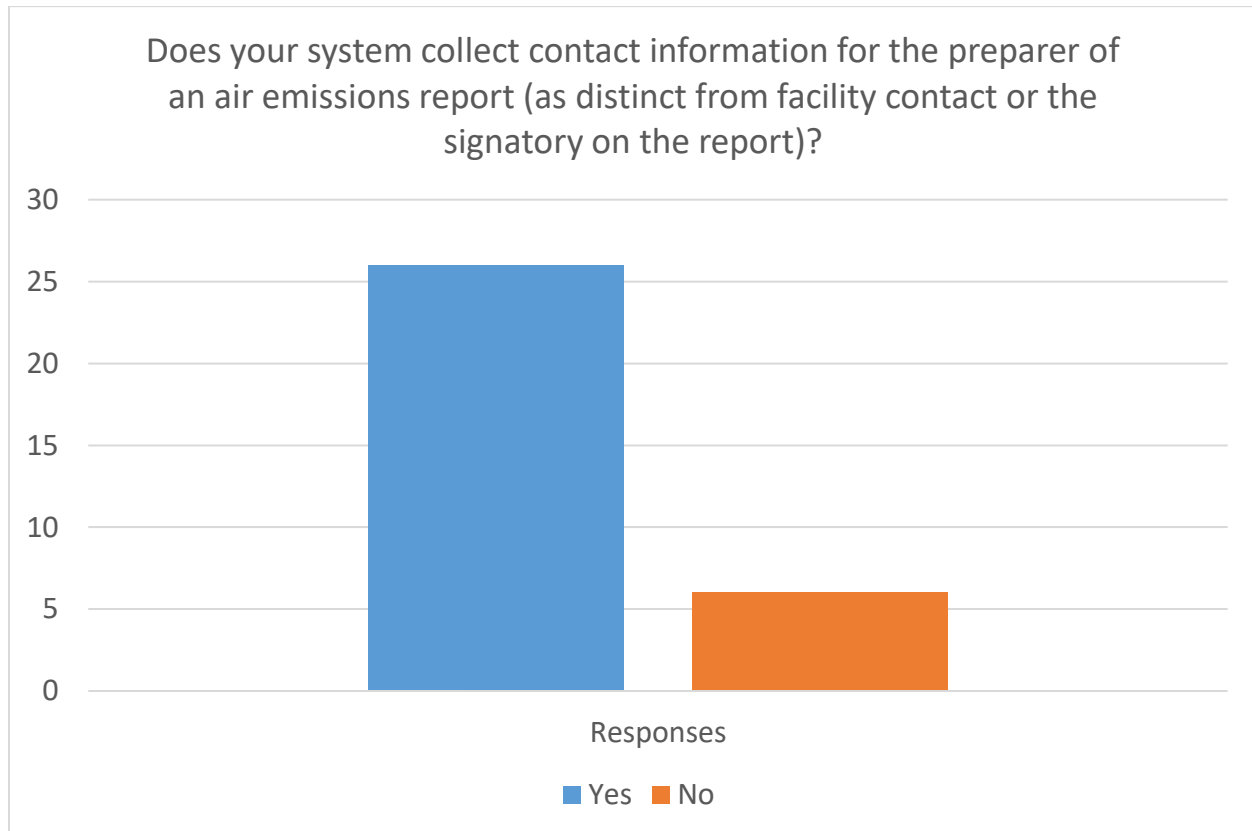
Recommendations and Considerations for Next Steps

Step 1. This will be considered later as a possible optional field in the CEF.

Step 2. Investigate a method to develop and define additional fields specific to individual SLT's requirements.

Survey Question 7: Does your system collect contact information for the preparer of an air emissions report (as distinct from facility contact or the signatory on the report)?

Summary of Responses: the majority of the SLT agencies do collect contact information on submissions.



Responses: Yes – 32 No – 15

Survey participant comments:

- All users are to have their own login and password. We do collect minimal information from preparers like email and phone number and name....
- When an EI is formally "submitted" electronically the only contact tag electronically attached to that submission record is that of the signatory. The preparer/editor contact info, if different from the signatory, is not electronically logged with the submission. However, our system contains a contact category of "Emissions Inventory Contact" at the facility level so we "know" who the preparer is through a somewhat manual search process.
- Our system has accounts associated with the facility for both preparers and signatories (Responsible Officials).

- The SLEIS system stamps any saved data with the name of the user who saved the data (and the date it was saved).

Recommendations and Considerations for Next Steps

Step 1. *Contact block should be included on the Common Emissions Form and need passed to the Facility IPT.*

Survey Question 8: Does your system allow for attachments – multiple files may be attached to each emissions report submitted? Do you require certain attachments with the emissions report?

Summary of Responses: Responses were mixed between requiring attachments and allowing attachments. This was enough to warrant the capability in the CEF. Most respondents who answered “no” to this question also commented that documentation was required. There was a need to have documentation mailed, or they were in the process of changing their systems to allow attachments. It was felt that there needed to be a functionality to allow required attachments and to give SLTs the option of making this required in the CEF.

Attachments		
Questions	Yes	No
Does your system allow for attachments – multiple files may be attached to each emissions report submitted?	28	19
Do you require certain attachments with the emissions report?	20	26

Survey participant comments:

- We require facilities to submit supporting documentation to justify their emissions calculations as well as a list of insignificant activities at the facility.
- Facility must supply all supporting documentation and calculations for emission inventory. These documents may be emailed or sent through the US Postal Service.
- Our current required emission data submittal consists of a set of Excel workbooks. Additional documents may be required, for example to explain some calculations or diagram a process.
- An Arkansas Point Source Inventory Facility General Information Form is currently required to be attached to each report.
- We strongly recommend that calculation sheets and additional data to be attached, but the inventory can be submitted without it.

Recommendations and Considerations for Next Steps

Step 1. Investigate the ability to include attachments in the CEF, e.g., documentation of signatory authority.

Step 2. Investigate the ability to make attachments optional or required (simple on/off toggle) and how SLTs can set the requirements for those attachments.

Survey Question 9: At what level or field are comments associated (e.g., emission unit, emission factor, throughput)? What is the size of field (number of characters)?

Responses: 40

Summary of Responses: Most SLTs allow for comments in every component of the submission (facility, unit, process, release point, controls, and emissions). Most survey respondents indicated that their data collection allowed facilities to also provide overall submission comments. Field sizes of comment fields ranged from 250 characters to unlimited.

Survey participant comments:

- SLEIS allows notes to be added pretty much throughout the preparation process.
- Throughout the submittal, there are opportunities to add comments. However, there is not a "general" area set at the end of document.
- There are comment fields throughout our database where state can add comments as applicable
- We have a comment field for most data element groups, though we don't use them all. We are using one for emissions data, and one for process/throughput/op schedule data
- Data field lengths varied between 250 to unlimited.

Recommendations and Considerations for Next Steps

Step 1: *Recommend adding facility and SLT comment data fields for each component.*

Survey Question 10:

Does your system allow for State Approval – field/s storing approval status for each emissions report (status + date + name of approver)? Yes/No

What does approval signal (e.g., QA pass, ok to flow to NEI, ok to bill)?

Is approval status displayed to the filer in your system? Yes/No

Summary of Responses: In most responses, SLT approval fields were used and visible to the user. These approvals appeared to designate everything from submission received to passed QA; ready for billing; and, ready for submission to the NEI. This approval was not displayed to the filer in most incidents.

Question 1	Yes	No	No Response
Does your system allow for State Approval – field/s storing approval status for each emissions report (status + date + name of approver)? Yes/No	20	23	5

Question 2	QA	NEI	Bill	All three	No Response	Other (No electronic approval system, submission receipt only, etc)
What does approval signal (e.g., QA pass, ok to flow to NEI, ok to bill)?	1	3	1	13	14	16

Question 3	Yes	No	No response
Is approval status displayed to the filer in your system? Yes/No	14	24	10

Survey participant comments:

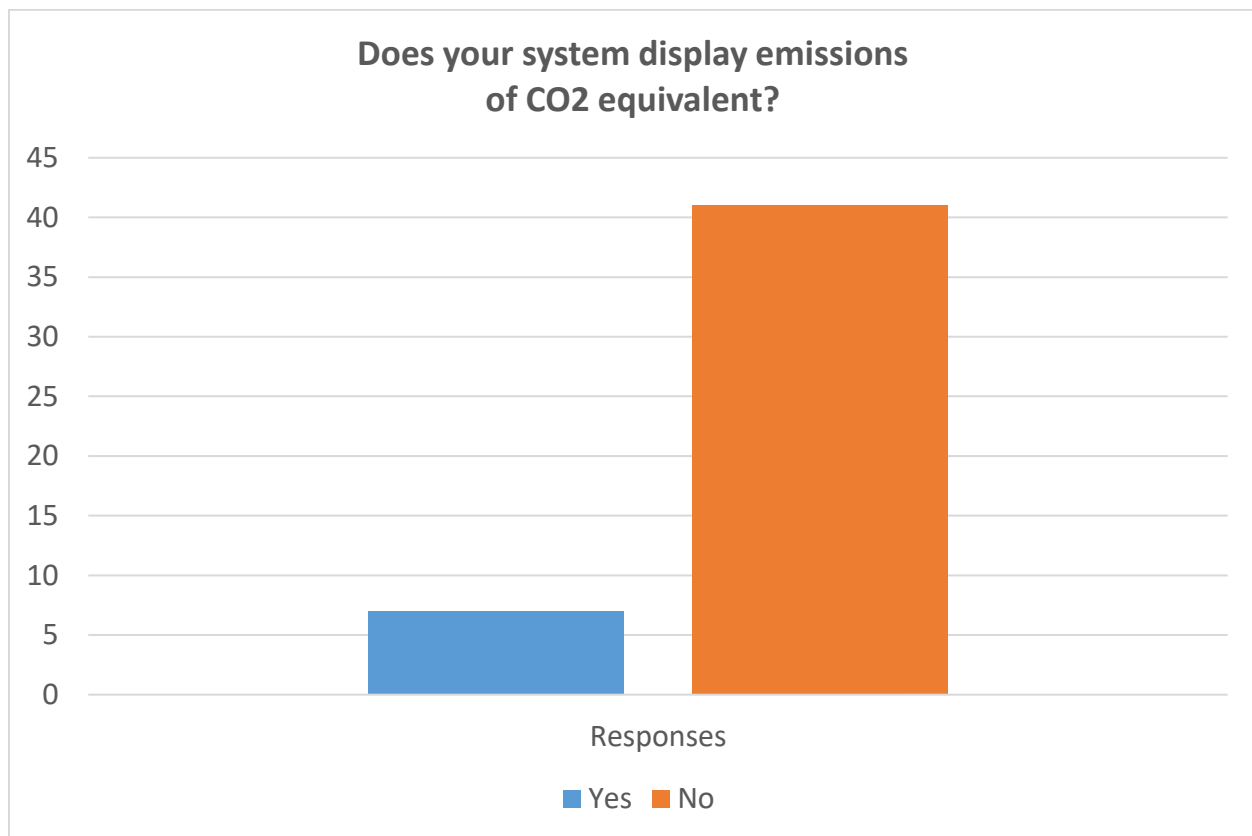
- The capability to document passing QA, etc., would be useful. However, this capability should be designed to be integrated with batch submission of facility data.
- An indication that the submission has been approved is not available. This would be good. However, this capability should be designed to be integrated with batch submission of facility data.
- No approval is displayed. If the emission inventory is not approved, the facility will get an email containing the deficiencies which must be explained/corrected.
- Only the final QA is displayed to the filer, the QA for billing is not displaced to the filer.
- The filer's screen displays "Submitted" after submittal. The Agency screen displays "Under Review" after submittal. Once the report is approved (by the Agency) the Agency screen displays "Completed." The filer's screen still shows "Submitted" and does not update after the report is approved.
- SLEIS does not currently have a direct/manual approval allowance that displays the date/name of an approver but it does segment the submission process so that an agency must approve and "complete" a report before the data is submitted to EPA EIS.

Recommendations and Considerations for Next Steps

Step 1. *Investigate adding a display indicating where in the approval cycle a submission is located should be considered for inclusion in the CEF.*

Survey Question 11: Does your system display emissions of CO2 equivalent?

Summary of Responses: The collection of CO2 equivalent does not appear to be in use in most SLT agencies. It is thought that having the ability to import the Greenhouse Gas Reporting System data into SLT systems may be a desired function.



Responses: Yes – 7 No – 41

Survey participant comments:

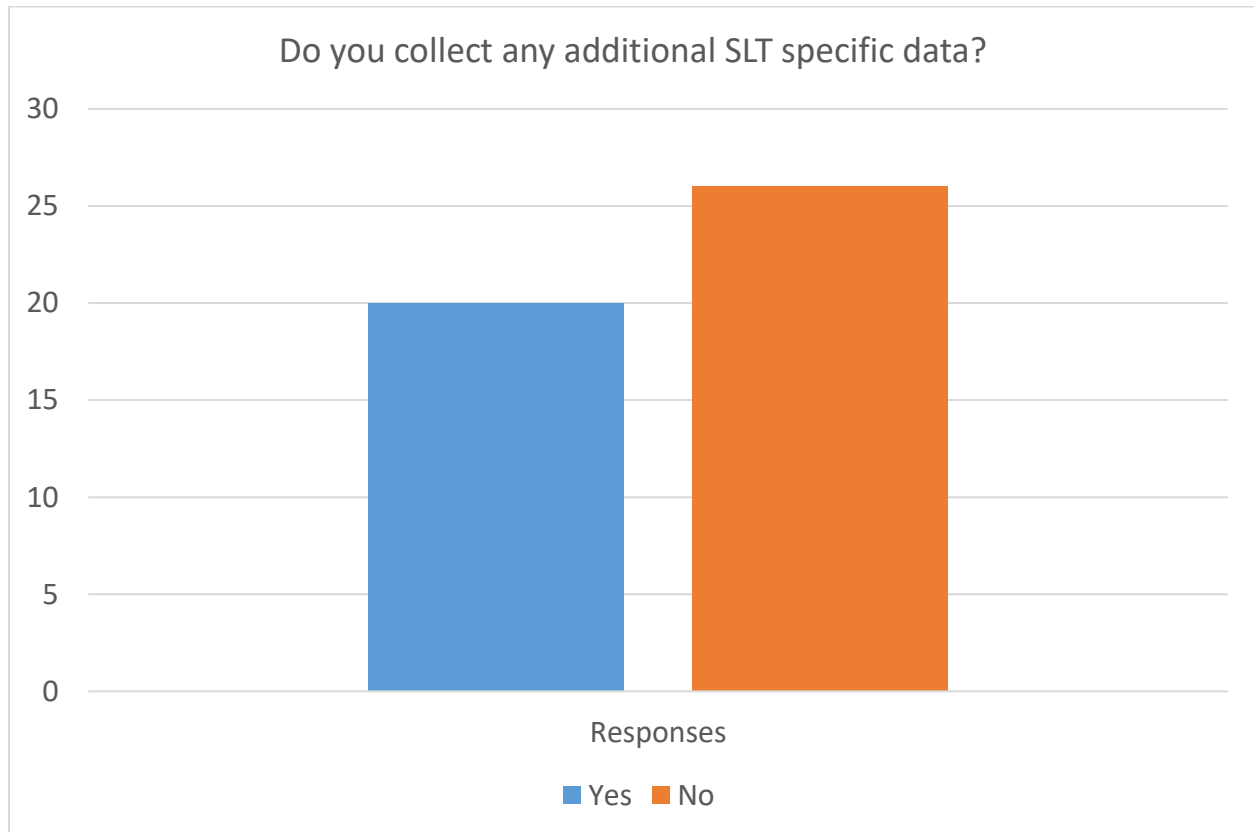
- We collect each individual GHG. CO2e becomes meaningless when the warming potential changes. With our methodology, we can always recalculate historical CO2e based on the existing warming potentials.
- We require the operator to report CO2 equivalent by a facility wide basis.
- We could, but the AERR does not give us the authority to require GHG emissions nor calculate CO2 equivalent.
- We collect CO2 and methane as greenhouse gases, but not CO2 equivalent.
- This is something that we believe will be needed in the future.

Recommendations and Considerations for Next Steps

Step 1: Investigate a web service which could allow SLT systems to import GHGRP data into their systems. This was discussed in the SLT/GHGRP PDT project and will continue to investigate in Phase II of the SLT/GHGRP project.

Survey Question 12: Do you collect any additional SLT specific data which is not collected by EIS?

Summary of Responses: Responses indicate that over half of the responding SLTs only requested those data fields which are included in EIS. The additional data fields from the “Yes” respondents are listed in Appendix C.



Responses: Yes – 20 No - 26

Survey participant comments:

- We ask facilities to indicate whether a process unit is an insignificant activity (IA).
- Operating hours, monthly throughput amounts, possibly some other items. We also collect/track user metrics.
- Our own comments on process, throughput, and emissions. In each case we have "public comments" to send to EIS and internal comments for our own use.
- (1) Pollutant Type field with three choices: CAP & NH3, GHG, Toxic and Other. (2) VOC expression: (as carbon, as propane, etc.). It's not required, and most filers don't fill it in. (3) Comments for the emissions and process info.
- Responsible Official Name, Title, Phone, and E-Mail. Due to CROMERR requirements, electronic signature agreement forms are also collected.
- Account ID, permit and version number, company address and contact info.

- % sulfur and % ash content for fuel burning equipment (*% sulfur and ash are collected in EIS*)
- Emissions Process: Monthly % of operations. Used for modeling SIP episodes.

Recommendations and Considerations for Next Steps

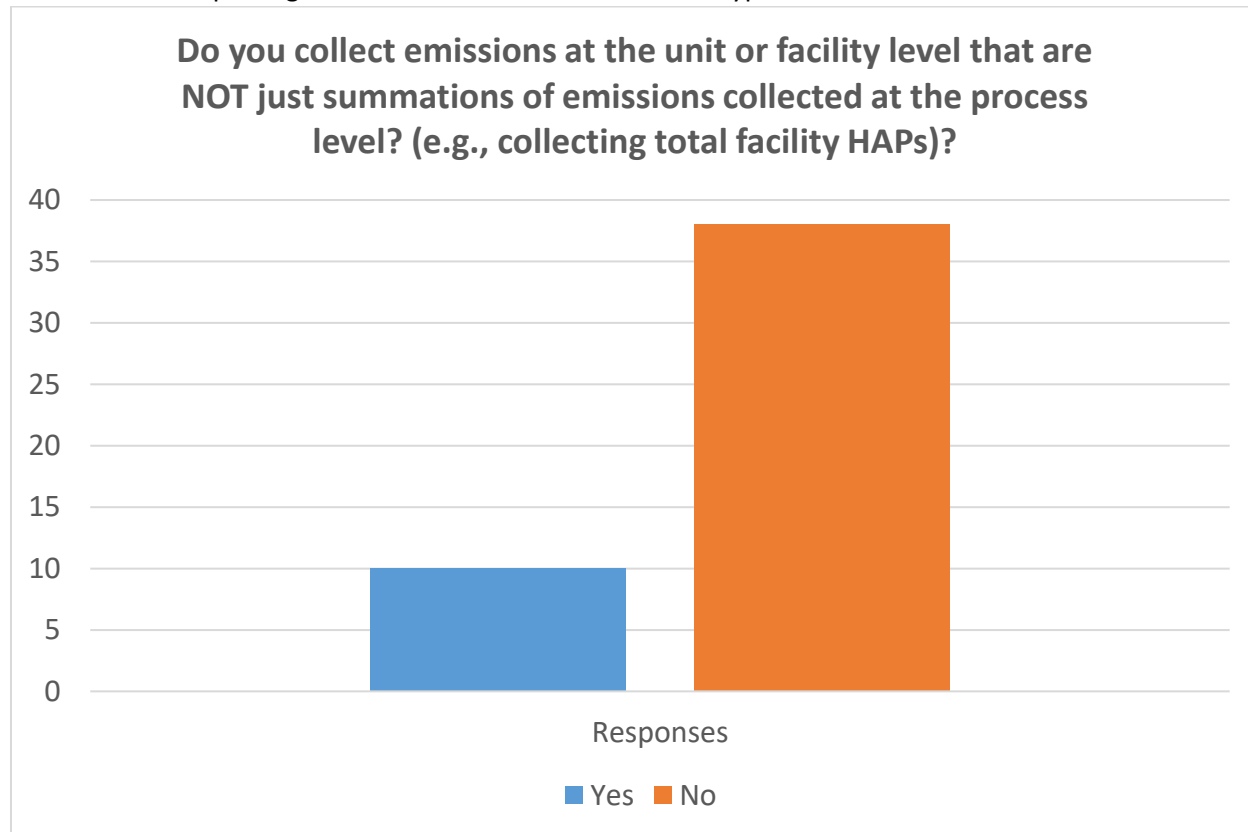
Step 1: Review list of requested data fields for inclusion in CEF.

Step 2: Poll SLTs for definition of the term “insignificant activity”.

Step 3: Forward facility data fields to the Facility IPT team for discussion.

Survey Question 13 Do you collect emissions at the unit or facility level that are NOT just summations of emissions collected at the process level? (e.g., collecting total facility HAPs)?

Summary of Responses: In most cases, SLTs collect emissions at the process level. For those who collect at either the unit or facility level, more information needs to be collected on how these emissions are handled when reporting to EIS and how EIS identifies these types of data.



Responses: **Yes – 10** **No - 38**

Survey participant comments:

- We are examining the possibility of doing this with SLEIS for non-NEI/non-AERR facilities.
- We do collect "Facility Wide Fugitive" emissions (HAPs, GHGs) separate from actual units.
- Emissions are input at the process level and then totals are rolled up at the unit and facility level.
- Some facilities submit HAPs only for the whole facility. In that case, we create a separate pseudo-emission unit and process for all HAPs for the plant.
- We can collect allowable emissions at the facility and unit levels, but this is not part of the NEI.
- HAPs, CO₂, and methane are reported at facility level.
- HAPs are estimated at the process level like the other pollutants.

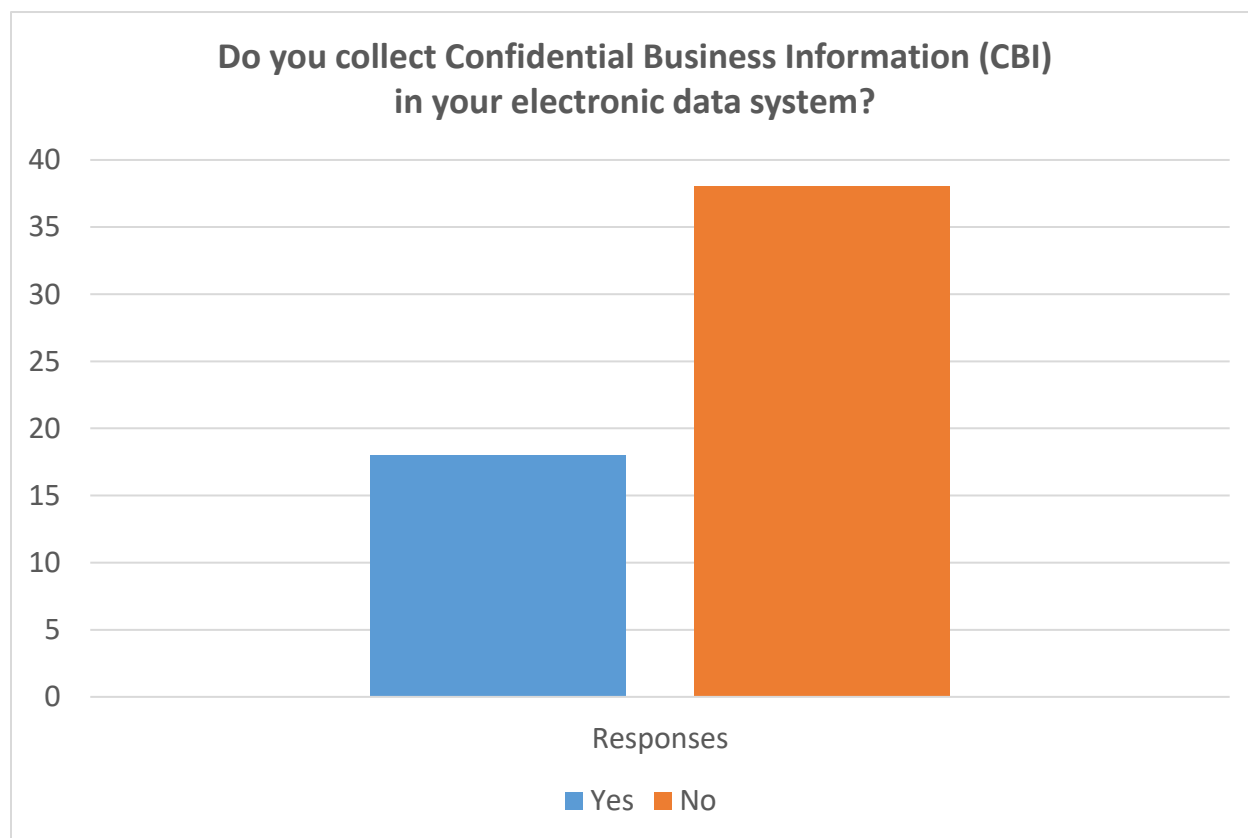
Recommendations and Considerations for Next Steps

Step 1: Follow-up with those SLTS where emission reports are not collected at the process level;

1) Are they submitted to NEI? 2) Are dummy units and processes created? If submitted what does NEI do with the data? 3) How do we handle these situations to support states with a CEF?

Survey Question 14: Do you collect Confidential Business Information (CBI) in your electronic data system? (If yes, what fields and how is it flagged?
If no, do you store a field that indicates that the information has not been submitted because it is CBI?

Summary of Responses: While most SLTs did not collect CBI, there were enough “Yes” responses to look at this topic in detail as a separate project in Phase II.



Responses: Yes – 18 No - 30

Survey participant comments on:

- Yes, process throughputs and emission factors can be considered confidential. There's a checkbox that allows facilities to indicate that a process unit's throughput and any emission factors used to calculate emissions should be considered CBI.

- A page marker on Emission Unit Page and Process page identifies if data fields are confidential. Facility must get prior approval if data is confidential, usually through permitting process data fields are identified as confidential. Usually maximum design capacity data.
- There is a flag at the process level that indicates that CBI has been claimed and allows the filer to only submit emissions data. When there is no CBI claimed, there are data elements that are required other than emission values.
- We have an option to mark the throughput as confidential. However, throughput is required by EIS, so if the filer marked the throughput as confidential, we use a substitute throughput, such as hours of operation or units produced.
- We have a flag that indicates CBI. As a rule, we do not submit any process operating data to NEI no matter whether it is flagged or not.
- There is a check box at the process level where the filer can flag information as CBI.
- The facility completes a special section that identifies the information is CBI, measures taken to protect the information, affirms that the information is not legally and reasonably available to other persons, and describes how the disclosure of the information would cause substantial harm to the facility's competitive position.
- Please see link to [Vermont's new CBI law](#).
- Facilities must submit this information if it is needed to calculate emissions. However, calculation sheets marked "confidential" are submitted separate from the data entry database and are maintained CBI by the agency.

Recommendations and Considerations for Next Steps

Step 1: *Research needed on CBI and how this impacts emissions calculator in the CEF.*

Step 2: *Research how GHGRP calculator uses CBI for calculations, but CBI is eradicated and not submitted*

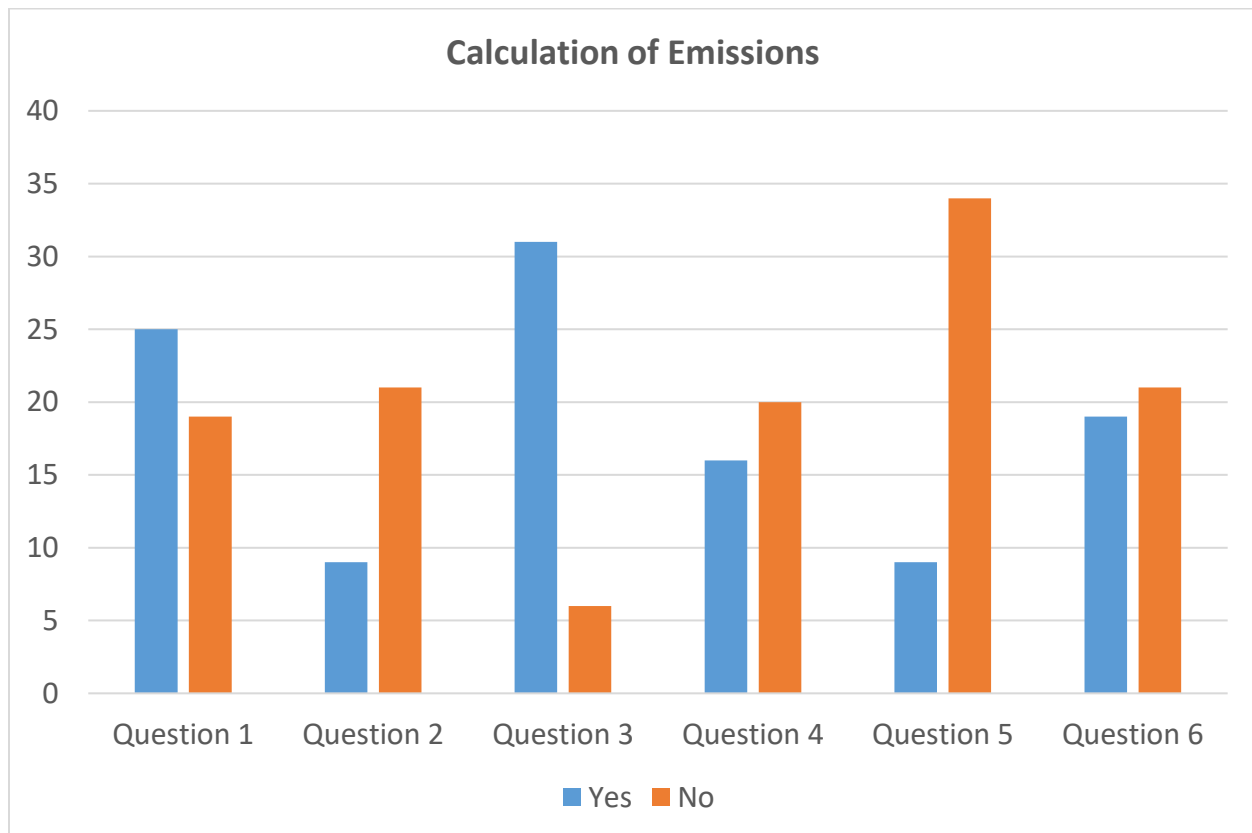
Survey Question 15: Calculation of Emissions

Summary of Responses: Responses showed three different levels of emission calculations:

- Require user to calculate emissions prior to submission with SLT QA'ing
- Agency calculates emissions
- System allows for input of emissions only

The following questions were asked:

1. Does your system track whether the user calculated the emissions or the system?
2. Are there limits to what types of facilities/units/processes can use the calculation feature?
If so, what are they?
3. Does your system allow calculation from user-supplied emission factors?
4. Does your system track whether the user supplied the emission factor for the calculation or used one supplied by your system?
5. Do you calculate ozone season (or other seasonal) emissions for filers?
6. Does your system calculate HAP emissions for filers?



Survey participant comments:

- Only Title V are required to report electronically. State electronic system might not have EF for all processes and would not be able to auto populate.
- SLT may only calculate when needed. Rarely needed. Some SLT will allow facilities to provide.

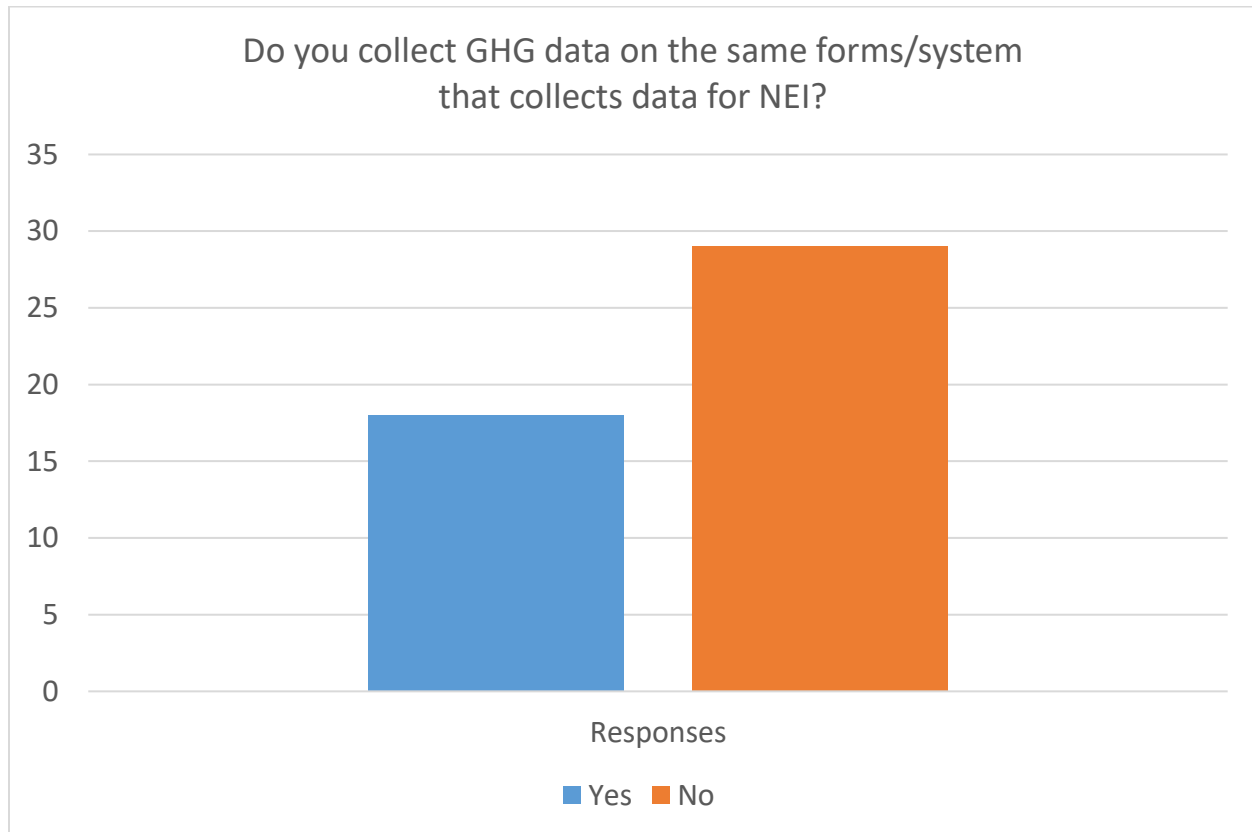
- SLEIS and other systems have calculation. If EF input the system will calculate the emissions. If auto calc needed on CEF would need to include HAP EF.
- If user enters EF, system calculates or filer enters emissions only. Calculation methodology indicates if user calculated. Another user could use WebFIRE methodology but facility can edit EF and State not know.

Recommendations and Considerations for Next Steps

Step 1: *Follow-up with SLTs who do calculations to determine whether calculations could be a post hoc report; or can calculation source be addressed in calculation methodology. SLEIS has functionality to auto-calculate but buggy right now.*

Survey Question 16: Do you collect GHG data on the same forms/system that collects data for NEI?

Summary of Responses: The reporting of GHG does not appear to be a requirement for most SLTs. It is important to look at the results from the GHGRP R&D project for those SLTs reporting Yes and recommendations.



Responses: Yes – 18 No - 29

Survey participant comments:

- The system is capable of it, but we are not currently requesting it.
- A facility may voluntarily submit GHG, but we don't require it. We could collect TRI and GHG data all at once with the system so they would just have to do this once, but the GHG and TRI rules wouldn't allow for this.
- Methane data is collected but not CO₂e

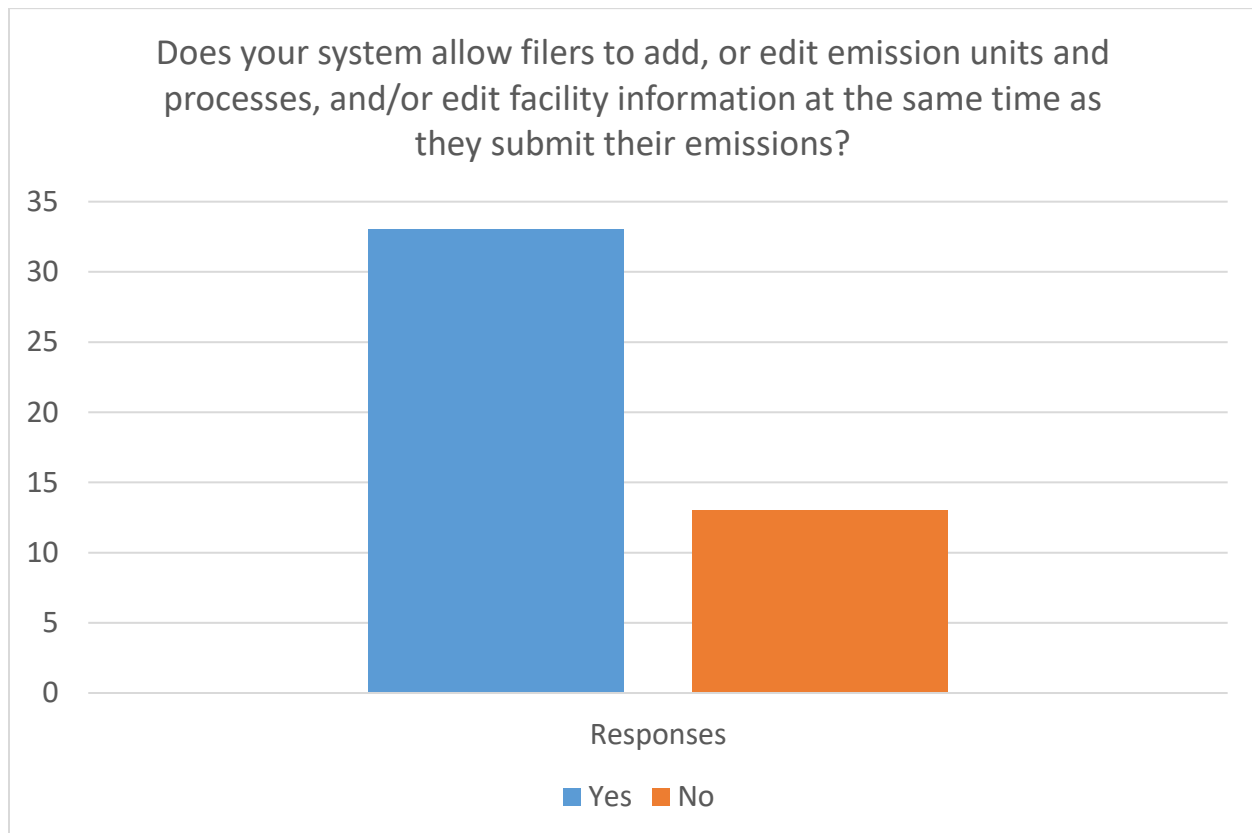
Recommendations and Considerations for Next Steps

Step 1: Review of GHGRP/SLT PDT project to determine the following:

- What level is GHG being collected at (facility/unit or process)?

Survey Question 17: Does your system allow filers to add or edit emission units and processes, and/or edit facility information at the same time as they submit their emissions?
If no, please describe how such changes are made.

Summary of Responses: Responses showed that most SLTs allow user's to edit facility data when submitting their emissions report.



Responses: **Yes – 33** **No – 13**

Survey participant comments:

- Users can edit some things within the system. For other edits they contact us to have the changes made by the air agency.
- Filers can add sources and control devices as non-permitted sources. These sources are evaluated by state reviewers and either added to the permit or deleted. Emission source ids and descriptions and control device ids and descriptions in our system are used to generate the source and control device list included in their air permit. Therefore, these items cannot be changed in while submitting without first modifying their permit. Also permitted sources and control devices must be removed from the air permit before being end-dated in the state system. If there is a typo in the source or control device description or facility information (like facility name, contact names) changes, then the facility must request the change in writing.

- If the filer's submittal shows a different structure than for the previous submittal, we expire and add emission units and processes as needed and enter any changes in facility information. These changes are passed on to EIS as part of our facility submittal.
- Any changes are communicated to the permitting authority and incorporated into the emission inventory as appropriate.
- Some entry fields cannot be changed; entry fields are required to match our database for entry. Prior to the due date of the emission fee form, operators are sent a file containing their current facility information and asked to make any changes prior to fee form submission.
- Filers can add or close emission units. Only agency staff may edit emissions units once they are established due to database structure and consistency needs in NEI.

Recommendations and Considerations for Next Steps

Step 1: *Research the ability to have a user edit/add facility data when submitting an emissions report. Attention needs to be made on how this can be accomplished while not impacting the permitting process.*

Step 2: *Research a general workflow that could prevent a facility from making the changes to facility data if edits are required to be done by SLT.*

Survey Question 18-20: If you were to use the Common Emissions Form (CEF), what is the most likely way the CEF would interact with your own system?

Summary of Responses: In light of the responses received, this question cannot really be fully answered until we have a sample of what the CEF would look like and how it would work in conjunction with a SLT's current system or hybrid.

Questions 18-20 - If you were to use the Common Emissions Form (CEF), what is the most likely way the CEF would interact with your own system?				
SCENARIO NO.	SCENARIO DESCRIPTION	YES	NO	MAYBE
1	Would you want to keep your current point source data collection system without changing it?	18	10	16
2	Would you want to keep your current system but modify it to accept some data from the CEF?	6	14	24
3	Would you like to use the CEF as a data collection interface but continue to store the data locally?	11	10	22
4	Would you use the CEF for both data collection and storage (data stored at EPA)?	4	26	13
5	Do you need a hybrid of the scenarios above?	11	22	
6	If you used the CEF, how would you like to see data distributed To SLT and EPA simultaneously To SLT and EPA after QA	10 1		

Survey participant comments:

- Our system works for us; if the CEF met all our needs we would consider using it in the future.
- We really like the system we have and our users are happy with it. We'd be hesitant to change unless there was a significant benefit.
- If resources allow we would like to be able to access enhanced functionality of the CEF. For example, electronic signature capabilities, GHG emissions not reported to NC, semi-annual/quarterly reported data to CEDRI, etc.
- Ideally, we would probably be able to use a system like SLEIS but would have information from the CEF populate applicable fields so that the reporting facility user and/or agency user would not duplicate efforts.
- This option would depend on the functionality of the CEF as a data collection system and whether it could be customized to collect SLT-specific data elements.
- If the data is transferable to an Access database while maintaining data relationships, the we may look at this.
- If CEF does not meet our requirements we will keep our system and feed information to CEF(EPA), however, potentially for TRI facilities we can take the CEF information to our database.

- I envisioned the CEF as a temporary holding and distribution system for facility data to SLT systems, CEDRI, TRI, GHGRP and EIS. There are many configurations and flexibility to collect custom SLT data would have to be built into CEF for SLTs heavily invested in their systems to use it. Our state does not allow the facility to change specific data elements that are identified in their air permit so this issue would have to be addressed as well.
- We like the idea of e-submittal directly to us with the capability of storing them locally and have full control over. Currently, permittees only submit throughput data to us, most don't know how to calculate emissions and are small enough that it is not cost effective for them to hire consultants. Also, most small companies are not tech savvy enough to file electronically, therefore, creating an undue burden for them.

III. Phase II

In Phase II of this project the following tasks will be addressed.

1. *Data solutions and documentation* – The data survey highlighted many individual issues that need to be investigated, resolved, and documented to specify a CEF. The effort to resolve any one of these issues is modest but together represent a significant amount of work. The tasks range from specifying field size/type to describing calculation functionality for annual and ozone season emissions. This task includes both documenting SLT-specific data identified in the Phase 1 survey and identifying differences in SLT and NEI for fields in common (e.g., field size). This task also includes identifying fields/features that will need to have some mechanism for SLT control for filers in their individual states (i.e. that would allow SLT to opt-in/out of a particular feature and control the flow of data after it is collected by the CEF) and the nature of that control. This task may require some additional survey work (e.g., to learn more about calculation methods). Part of this task will include identifying issues that may need to be postponed for later consideration (i.e., might be too time-consuming or undefined to be addressed in time for a pilot). These issues will take some time and effort to work out, but doing so will generate critical specifications for filling the gap between SLT systems and NEI. These are the raw materials for building a CEF and completing this task is on the critical path to a pilot.
2. *Targeted pre-pilot assessment* – An original Phase 2 concept was to assess the specific needs of a potential pilot SLT in preparation for the pilot project. This should be started now IF we can identify that SLT. This applies the results of part #1 above to a real test case. The project investigates the specific needs of the pilot state and compares them against the CEF as documented thus far. These needs will be a subset of the needs for a final CEF. The product will identify any additional specifications and documentation needed to ensure the CEF will successfully meet the needs of the pilot SLT (including the handling of facility data). The objective is to specify a minimally viable product targeted at the pilot state.

3. *Workplan for development of a CEF* – Collaborate with the EPA IT lead (availability pending resource approval) to develop a checklist of the documentation needed to create the CEF. The items in this list will be those necessary for a pilot and will aid in the management of the pilot development process. The goal of this next step is to (1) assess the gap between what specifications have been developed or are underway and what is needed to specify a system that is fully functional for the pilot SLT and (2) specify what work is needed to fill that gap. This task must inherently address SLT/NEI needs for collecting facility data. The results would be used to organize a procurement process. The work should also document the specifications needed for a more broadly usable CEF where they are identified during the work (although the full CEF requirements will result from a longer iterative agile process). The objective of this project is inherently limited because the final requirements of the pilot itself will be subject to an agile development approach. However, the point of this phase of the project is to ensure that, prior to expenditure of funds on a pilot contractor, the process and documentation needed to make the work of such a contractor efficient has been substantially completed.

IV. [Appendix A – Data Model Survey Results](#)

Please refer to Excel File titled “Appendix A Data Model Survey Results.xlsx” for the detailed responses and comments received from the Data Model Survey.

V. [Appendix B – Additional Pollutants Requested](#)

Please refer to Excel file titled “Appendix B Addtl Pollutants.xlsx” for the additional pollutants requested to be made available for reporting in the Common Emissions Form. These pollutants are additional to those already accepted by the Emission Inventory System.

VI. [Appendix C – Additional Data Fields Requested](#)

Please refer to Excel file titled “Appendix C Addtl Data Fields.xlsx” for a list of additional data fields requested. These fields represent additions to what is currently held in the Emission Inventory System.