

# R&D PROJECT 7 SCOPE

## DATA MODEL FOR THE COMMON EMISSIONS FORM – PHASE II

January 19, 2018

Overview

### 1. Participants (To date)

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### 2. Milestone 1 Task Area(s)

Define data model/functionality and prepare for pilot.

### 3. Project Description

The work from Phase 1 will continue as we document a data model with the emissions-related data elements needed to support a common emission form (CEF) reporting structure in a shared emissions platform. Identify and include state-specific data elements sufficient to allow for broad usage by states and EPA Combined Air Emissions Reporting (CAER) programs.

### 4. Project Steps

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. *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.
3. Business Rules for CEF – Document discussions on basic business rules needed for the CEF. Business rules are specific to SLT controls in managing the CEF, emission factors and the locking of specific data fields from user update during submission of emissions.
4. *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.

## 5. Prior Work

1. State of Massachusetts conducted a nationwide survey with 45 out of 50 states responding in Phase 1. The purpose of this survey was to not only to find out additional pollutants and data fields used by individual State/Local/Tribal air agencies, but also how they process emissions, data requirements, and their possible interaction with the CEF. Several responses from this survey will require more analysis to better understand their impact on the CEF.

## 6. Deliverables

- Document describing data element specifications for use in CEF.
- Assessment report on specific needs as they relate to a specific pilot state compared to the data elements as compiled in first phase and step 1 of second phase.
- A workplan with CEF specifications and requirements that could be used for IT vendor procurement for developing a CEF prototype for use in pilot.

## 7. Resource Needs

Availability of EPA IT lead

Sufficient funds allocated to procure an IT contractor to support the implementation of the work plan in Step 3.

## 8. Expected Workload

Avg. 2-3 hrs. per week over course of project, concentrated in initial weeks and at intervals based on the deliverables.

## DELIVERABLES & EXPECTED COMPLETION DATES

Deliverable	Expected Completion Date
<i>Data solutions and documentation</i>	April, 2018
<i>Targeted pre-pilot assessment</i>	August, 2018
<i>Workplan for development of a CEF</i>	December, 2018