



Fall/Winter 2025 Unified Platform Project Listening Sessions Summary

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Background

The purpose of this document is to provide a summary of feedback received by EPA regarding the Unified Platform Project. This document compiles both summarized and direct feedback from staff at state, local, and Tribal (SLT) agencies, EPA regional offices and industry. This information is being shared to advance Pillar 3: Cooperative Federalism under EPA's Powering the Great American Comeback initiative and to reinforce EPA's commitment to transparency and openness. This document is being shared for informational purposes only and does not indicate EPA's position or endorsement of any specific comment, or a commitment to adopt any suggestion made during the engagement sessions.

The EPA is reviewing its air programs to identify where it can simplify reporting workflows, improve data access, and better support air quality data management needs. The goal of the effort, called the Unified Platform Project, is to build a new, scalable, state-of-the-art architecture to collect, process, store, and distribute air quality data within a single system. .

This report summarizes the feedback gathered during listening sessions held by EPA in the Fall/Winter of 2025. During these sessions, SLTs, EPA regional offices, and industry stakeholders shared their challenges with current air program systems and suggested opportunities for improvements that could be made in the new system. The pain point bullets in the Appendix reflect verbatim participant feedback, with only minor edits made for typos or clarity.

As needed, EPA expects to seek further input from state, local, and Tribal (SLT) agencies, EPA regions, industry, and other EPA offices throughout the project. To receive project updates, contact us at UP@epa.gov and ask to be added to our email list.

Overview

EPA conducted a series of listening sessions across the ambient, emissions, and regulatory business lines to inform the Unified Platform Project. Sessions were held during September - December 2025 and participants included representatives from SLT agencies, EPA regional

offices, and industry stakeholders. Attendees covered a wide range of roles and job functions that included monitoring, reporting, data management, compliance, and program oversight.

Ambient Overview

Business Line	Total / Type of Listening Session	Date Range	Participants	Pain Points Submitted	Pain Points by System	Participation Scope
Ambient	4 SLT 1 Tribe-only	Sept – Oct	600+	500+	440+ for Air Quality System (AQS) 90+ for AirNow	50 States, Washington D.C., and Puerto Rico 6 state/local Multi-Jurisdictional Organization (MJOs) 34 Tribes & Tribal Air Monitoring Support Center (TAMS)
	2 EPA Regional	Oct/Dec	55+	110+	90+ AQS 25+ for AirNow	10 EPA regional offices

Emissions Overview

Business Line	Total / Type of Listening Session	Date Range	Participants	Pain Points Submitted	Pain Points by System	Participation Scope
Emissions	3 SLT	Sept – Oct	350+ SLTs	140+	103 Emissions Inventory System (EIS) 25 Combined Air Emissions Reporting System (CAERS) 12 Compliance and Emissions Data Reporting Interface (CEDRI) 5 Web Factor Informational Retrieval Database (WebFIRE) 4 Electronic Reporting Tool (ERT)	47 States, Washington D.C. 8 state/local MJOs 9 Tribes
	1 EPA Regional	Dec	37 Regional	25	20 EIS 4 CEDRI 1 ERT	10 EPA regional offices
	2 Industry	Dec	150+ Companies	100+	13 EIS 25 CAERS 43 CEDRI 3 WebFIRE 19 ERT	Energy, Oil & Gas, Infrastructure, Utilities, Technical Consulting, & Manufacturing

Regulatory Overview

Business Line	Total / Type of Listening Session	Date Range	Participants	Pain Points Submitted	Pain Points by System	Participation Scope
Regulatory	3 SLT	Oct – Nov	300+	65+	47 State Planning Electronic Collaboration System (SPeCS) for State Implementation Plans (SIPs) 17 SPeCS for Exceptional Events (EE) 4 Greenbook	50 States 7 state/local MJOs
	1 EPA Regional	Dec	25+	35	17 SPeCS for SIPs 15 SPeCS for EE 3 Greenbook	10 EPA regional offices

Listening Sessions Summary

This section summarizes the key feedback provided by SLT agencies, EPA regional offices, and industry stakeholders during listening sessions conducted for the ambient, emissions, and regulatory business lines. **For each listening session, the summary highlights the top five system or category-specific pain points, when available, that were most frequently raised or had the greatest impact on stakeholders.**

The insights presented here are intended to provide a focused view of the most critical issues identified by the stakeholders during each session. **A comprehensive list of the primary pain points provided by the stakeholders during the listening sessions is provided in the Appendix of this document for additional reference and transparency.** Notably, the content of this document is intended to be informational to transparently share the feedback received and does not represent EPA's response or position on any feedback.

Ambient State, Local, Tribal (SLT) Sessions

What We Heard from the Stakeholders at a High Level

The user interface should be intuitive and modern. Dashboards and data visualization should constantly aid the user. The technology should be web-based—with AQS no longer requiring Java—and it should perform functions fast. Changes should be made to reduce frustrations related to the Central Data Exchange (CDX).

Reports should be customizable, readable, and clear on what they do. Helpful, contextual information should permeate the app (tooltips, definitions, equations, errors, and notifications

should constantly aid the users and workflows). Audit trails should be captured and easily accessed. Data should only be uploaded once—eliminating duplicative data—available to be used for AirNow and/or AQS. Organizations should control their own users, no longer having to go through the EPA. Tribal users shared repeatedly that they need more dedicated help and support and noted that the bi-monthly Tribal support sessions are no longer available.

What We Heard from the Stakeholders about the Systems

Air Quality System (AQS)

The most active categories were Reports, Data Submission, Sites & Monitors, Support, and Errors/Feedback/Notifications. Below are the top observed pain points in these categories.

AQS Reports:

- Some data is not available in a report/not having a report that does what you need.
- Hard to know which report does what, and reports should clearly indicate what they are.
- Hard to get data in appropriate format.
- Hard to digest, lots of readability issues, formatted poorly.
- Reports are not customizable.

AQS Data Submission:

- Unable to submit multiple files & unable to submit more frequent data.
- It is frustrating that the Exchange Network Service Center (ENSC) upload is separate.
- Population data needed for the 5-year assessment should be in the system.
- Work with existing air quality data management systems (AirVision, LEADS, DRDAS, etc.) to allow seamless integration/upload to AQS instead of having multiple apps/processes.
- Troubleshooting data loading errors using PDF Error Report is extremely time consuming and prone to missing data that wasn't loaded.

AQS Sites & Monitors:

- Not user friendly, especially when adding new sites & parameters. Should be able to set start date and have autofill for information. Guided steps would be good too.
- Challenging maintaining site & monitor metadata.
- Challenging switching primary & QA collocated monitors at a site.
- Linking monitors when method codes change for the same parameter would be awesome (example: 236 v 636 for PM2.5 method code) to demonstrate completeness for the entire year (from Reports section).
- Bring back QA Eye.

AQS Support:

- It is difficult to train new staff, as few people understand the system and new users have a tough time learning.
- Time-consuming to help users add new parameter codes or method codes.
- Acceptable code combinations are not detailed.

- There should be a working AQS help feature where you can pick a topic—such as “set up a new site”—and you are guided in the process. Also, the error and check functions are not helpful.
- Are there strong preferences/guidelines for when an ambient Parameter Occurrence Code (POC) number needs to change? Records get very complicated when a new POC is established just for a change in Method. If not managed through training, maybe limit POC creation to supervisors?

AQS Errors, Feedback, & Notifications:

- Error messages are hard to understand or just missing. It’s often impossible to know what’s wrong/erroring and how to fix it. Error messages should state the exact error, not a general nonsense description.
- Users often need help understanding workflows for loading different data types into AQS.
- Perhaps show equations used for AQS calculations.
- There is no notification (email) when our data is certified by EPA, so we have to keep checking back, and EPA does not receive notification when data are certified by Primary Quality Assurance Organizations (PQAOs).
- The files can come back empty, and you have no idea why.

AirNow

Top five AirNow pain points.

- Public vs SLT agency interpretation of the Air Quality Index (AQI).
- Inability to submit more frequent data.
- Differences between fire and smoke map and AirNow raise questions from the public.
- Delays after sending data.
- Load times are laggy/slow sometimes.

What We Heard at the Tribal-Only Session

This listening session was held exclusively with Tribal partners to provide a dedicated space for sharing perspectives specific to Tribal air programs and operational contexts. While fewer pain points were submitted, the feedback reflects targeted insights unique to Tribal experiences and will inform Unified Platform Project design considerations alongside broader stakeholder input. The five highest-rated pain points identified by Tribal participants are listed below.

- Tribes want to control their data and not necessarily be linked or associated with a state.
- Tribes are at a significant disadvantage since Tribes were not considered as regulatory air monitoring authorities when the system was initially built. As such, the process to allow Tribes to input data has been confusing and not clear.
- Submitting data is challenging where CSV data is converted to XML format for submission to CDX.
- More support and training are needed now and will be needed for the new system.

- Many Tribes utilize the Quality Review and Exchange System (QREST) application supported by TAMS for data submission; will need to ensure the new system can accommodate this.

Ambient EPA Regional Sessions

What We Heard from Stakeholders at a High Level

The desire to better understand when data from SLTs are submitted or changed and how regulated agencies are progressing against regulations; notably understanding data completeness & QA submissions throughout the year. Having the ability for the system to automatically use submitted preliminary data and create ongoing snapshots of preliminary design values without the need to manually mesh data together from AQS & AirNow.

Processes should be streamlined, particularly workflows with users from multiple agencies (e.g., User Account Registration, Exceptional Events, National Ambient Air Quality Standards (NAAQS) Exclusions, Annual Certification). Better tools to Administer EPA regions tasks including Technical System Audit (TSA) & Quality Assurance Project Plan (QAPP) tracking.

What We Heard from the Stakeholders about the Systems

AQS

The most active categories were Reports & Data Availability, Sites & Monitors, Errors/Feedback/Notifications, and Administration & User Management. Below are the top observed pain points in these categories.

AQS Reports & Data Availability:

- Ability to tell if there are any changes to data and tell who made the changes, and when they were made.
- Users would like to have a dashboard & report for annual monitoring network plan.
- Be able to run AQS data completeness reports for any time period, not limited to a single year.
- Recommend creating a quarterly data review report that summarizes any information that the EPA regions need to review in their quarterly data reviews (e.g., QA data completeness).
- More transparency when things are changed in AQS after original upload (pollutant data and site/monitor metadata).

AQS Sites & Monitors:

- Easier way to create new monitors.
- Tracking Annual Monitoring Network Plans, approval, cross verification of sites and site changes. Also, possible repository.
- AQS pulls info on site core-based statistical area (CBSA) from the U.S. Census Bureau but hasn't updated to the latest CBSA boundaries for almost a decade.

AQS Errors, Feedback, & Notifications

- Notification when SLT data upload is late (as an option).
- AMP600—send notification when data is certified/concurred/flag flips back to “M.”
- It would be nice if EPA regions were notified when an SLT adds an EE or NAAQS Exclusion.
- Notifications would be helpful for data certification (when agency certifies or changes previously certified data).

AQS Administration & User Management

- Simplify new user registration process. Users should be able to register through the platform instead of sending PDFs through email to the regional office. Notifications could be sent to their EPA regional AQS Contact.
- Better AQS user management for the regional leads. Allow us to pull and update AQS user contact lists, approve/disapprove users, etc.

AirNow

Most of what was identified for AirNow concerns one of the following: Reports & Data Availability, Maps, particularly AirNowTech Navigator features, and Data Aggregation for the purposes of calculating rolling preliminary Design Values. The five most highly rated AirNow pain points are below.

- If integrating AirNow and AQS data, have a clear delineation between preliminary AirNow data and verified/validated AQS data.
- AirNowTech tool integration with AQS data. . .such as the ability to do wind or pollution roses.
- Regions need to have access to all the same tools and modules as SLTs so that we can assist our partners.
- Currently AirNowTech functions very differently from AQS, it would be helpful if they're similar since AirNowTech gives access to more real-time data. It could be useful for keeping tabs on which monitors are reporting prior to data submittal.
- Improved mapping options, ability to pull maps of active and/or historic sites as well as all pollutants rather than just by single pollutants.

Emissions SLT Sessions

What We Heard from the Stakeholders at a High Level

SLTs need more user friendly and intuitive interfaces. They need helpful and contextual information to inform how to use EPA systems (*i.e.*, tooltips, definitions, equations, errors, and notifications to aid users and their workflows). SLTs have challenges with system time outs and want increased speed and efficiency while uploading data. Feedback indicates a need for more comprehensive training materials that capture nuances for new staff and ongoing training for all systems.

The following is a more detailed list of statements, pulled from the five highest-rated pain points in the categories discussed.

What We Heard from Stakeholders by Category

The most active categories were Facility Inventory, Preparing and Quality Assuring Data, and Data Submission. Below are the top observed pain points in these categories.

Preparing, Quality Assuring, & Submitting Data

- EIS errors are difficult to understand and fix. For example, QA check #2323 is misleading, it points to process instead of control pollutant table and does not allow values > 99.9% for reduction efficiency.
- A WebFIRE list of emission factors and a list of Source Classification Codes (SCCs) cannot be accessed from inside EIS or the Bridge Tool.
- EIS facility feedback reports and error messages may reference multiple interconnected data elements (e.g., paths, pollutants, statuses) but not adequately describe how to resolve the errors, even for experienced inventory developers.
- Fixing errors often require downloading spreadsheets that contain the errors, and looking up the errors in a list, and the error messages may not be clear.
- Finding out about a code table change during SLT submission to EIS, instead of ahead of time is frustrating.

Facility Inventory

- Facility data across systems is inconsistent. For example, facility IDs, addresses, units may be different in every system. This makes it hard to match facilities between systems.
- Release point latitudinal/longitudinal tolerance requirements in EIS are too tight for large facilities.
- Facilities sometimes have the wrong latitudinal/longitudinal coordinates (the SLTs and EPA may not have the same ones).
- Tribal reservations may not have 911 addresses. Some towns may share a zip code across different political boundaries. Allow those that are updating their facilities on Tribal lands to override any prefilled address data that might no longer be applicable.
- Facility searches in CEDRI (e.g., Facility Registry Service [FRS]) don't return good results. It's easy to create duplicates because existing facilities are hard to find.

Generating Reports & Searching Data

- EIS report descriptions should be expanded to be clearer about which data will be in the report. Unless you are very familiar with the data and the system, it is hard to know whether you need to request a report for State by sector, state by data category, and state by sector-data category, for example.
- Any data visualization by major emissions inventory category (e.g., point, nonpoint, on road, nonroad, SCC, etc.) would be helpful. These could help identify trends between

National Emissions Inventory (NEI) years. Maybe it can have a map visualization feature.

- It is uncertain how long a report will take to generate in EIS.
- Emissions data comparisons across emissions systems are difficult. For example: you cannot see stack test (*i.e.*, performance tests, Relative Accuracy Test Audit [RATA]) data submitted to CEDRI from EIS. Users would like to crosscheck stack test data ERT/Carbon Dioxide Removal (CDR) to EIS interconnectedness.
- Getting facility/unit specific multi-year emission information should be much easier in EIS.

Training & Documentation Needs

- There are lots of nuances that are not captured in training materials for new staff.
- To my knowledge, the last time EPA created a document with full reporting instructions was under the 2008 NEI Implementation Plan. That was quite a while ago.
- EIS Bridge Tools are difficult to learn.
- ERT is difficult to learn and troubleshoot.
- There is very little documentation on how to prepare EIS submissions and correct errors. This makes knowledge transfer to new staff difficult.

System Performance

This section highlights concerns about the speed and efficiency of various applications.

- The screen load time being slow in EIS makes manually editing data impractical.
- It can take hours to upload EIS files.
- EIS times out too quickly.
- Noticeable slowdown occurs during heavy reporting times.
- CAERS frequently crashes during QA checks/loading the report summary tab if a facility has a large number of units.

Miscellaneous

- More clarification is needed between data that is required by the regulations vs data that is nice to have and helpful for emissions inventory development.
- Keep in mind that unless the data is clearly specified in federal regulations, every SLT may have different rules and additional requirements that heavily impact the data.
- Cross-Media Electronic Reporting Rule (CROMERR) certification process should be easier. Submittals should be certified by source staff that meet the definition of Responsible Official (RO).
- The Unified Platform has to be compatible with Windsor products.

Emissions EPA Regional Session

What We Heard from Stakeholders at a High Level

EPA regional stakeholders emphasized the need for faster system performance, improved access to multi-year emissions data, and stronger capabilities for analysis, reporting, and data reconciliation across systems. They highlighted challenges with system speed, searching, and generating trend comparisons, as well as the need for better visibility into related submissions across tools (e.g., EIS, CEDRI, ERT). The following sections summarize the highest-rated pain points raised during the session.

What We Heard from the Stakeholders about the Systems

ERT

- Regional users use ERT to see compliance test results to verify the source complies with emissions limits. There's an option to include a pdf written report. The longer written discussion can be very useful, not just the data.
- There are issues with opening some old ERT files in the latest version.

CEDRI

- Some Acid Rain, Cross-State Air Pollution Rule (CSAPR), and Mercury and Toxics Standards (MATS) data collected via the Emissions Collection and Monitoring Plan System (ECMPS) goes to CEDRI. Could we consider pulling ECMPS data for display in CEDRI? Some of the data never makes it to CEDRI (e.g., annual emissions data from power plants never make it to CEDRI). You can get it from the acid rain system, but it would be great to have one location where you can see everything.
- It would be nice if CEDRI had a dedicated way for facilities to make performance test notifications and then show them on a calendar.

EIS

- Regional users use EIS to look at previous year's emissions to understand State Implementation Plans (SIP) and FOIA requests (e.g., emissions from 2012 to now). Data is also used to see transport of ultra fine particles and ozone. Data is used for weight of evidence (e.g., how a unit affected emissions).
- Comparisons across years: regions rely on year-to-year emissions inventory data comparisons. Currently it is not easy to get emissions data for multiple years quickly or do comparisons between years easily.
 - I spent 2-3 days downloading NEI data from EIS, compiling it into individual spreadsheets, and then using python to combine files. Once that data is put into PowerBI the data can be accessed within seconds.
 - Users would like to have frequently requested trend reports and trend lines, rather than having to pull the data for individual years manually each time and then process the data to create the relevant comparisons.
 - Users would like the ability to do comparisons across years for individual facilities (Facility Site Detail page), and units (e.g., in the last 8 years).

- Users would like to have better data visualization for reports
 - Improve process time.
- Improve system speed: You have to wait a long time to get reports because the system is really slow.
 - Have the ability to generate reports faster.
 - Improve EIS' ability to handle large databases.
 - Fix whatever issues cause the facility search function on the home page not to work sometimes.
 - Make it faster to search in the 'Facility Inventory and Point Emissions' tab.
- Reconciling data across systems:
 - Users should not have to reconcile different NEI databases: what's in the trends EPA site, versus what EIS is providing, what's on the data summaries website for the triennial years (e.g., there may have been a methodology update for the emissions trends).
 - Users may use Envirofacts for a certain pollutant, multiple years all in a row. In EIS we can only get one NEI. When we do weight of evidence analysis, we can see how a unit affected emissions. Users have to wait hours to days until an error is fixed. We need the ability to find the data in other databases and also find data from TRI for a facility.
 - Could the Unified Platform share that a facility you are looking at in EIS has submitted reports in CEDRI and other places such as the Integrated Compliance Information System (ICIS) also?
- Tagging and notifications:
 - If we could tag ourselves for a notification when specific entities submit data, that would be great. Specifically, users would like the ability to know when states and Tribes in my region submit to EIS (as well as specific facilities when needed). This would allow the user to passively track submittals instead of always having to actively look up the information throughout the year. That way you also don't have to re-learn how to do this process.
 - Users would like to have the ability to tag EPA contacts, so it automatically notifies the EPA contact that information for facility X has been submitted.

Emissions Industry Sessions

What We Heard from Stakeholders at a High Level

Industry stakeholders have challenges with clarity and transparency in the existing systems. Industry needs helpful and contextual features to make system access, navigation, submission, and the general workflow easier. We heard specific requests to reduce data entry confusion and data redundancy. The following is a more detailed list of statements, pulled from the highest-voted pain points in the categories discussed.

What We Heard from the Stakeholders about the Systems

ERT

- The UX is not intuitive.
- The more pulldown/searchable reference fields the systems provide, the better (e.g., SCCs). It is hard to find the right SCCs; the list cannot be accessed from inside ERT.
- We have to outsource ERTs because it is so time consuming to do them. Also, pulling the pdfs for ERT is difficult.
- A contractor has to upload the reports for us. That costs money.
- ERT (maybe when it passes to WebFIRE) appears to make calculation errors for some stack test methods, mostly due to rounding of constants and in between steps instead of rounding at the end. This presents a certification challenge when the ERT output and stack test report do not match.

WebFIRE

- There should be a search engine that includes SCC, equipment description and associated Emission Factors for that system. For Example, I want to select Compilation of Air Pollutant Emissions Factors from Stationary Sources (AP-42) Emission Factors for Natural Gas Combustion for a burner. Only certain SCC Codes will allow the US EPA Emission Factors from AP-42 Natural Gas Combustion to be available from the dropdown menu. WebFIRE and the SCC Code should be linked so that you can pick the process and then pick the Emission Factors. Allow for the search to narrow down to what your equipment is and what type of facility and what's feeding into it, what the size and capacity is for the equipment to see what you're trying to compare against.
- Often there is very little data/reports available.
- WebFIRE search tools for emissions factors and reports rarely return expected results.

CEDRI

- If another person at our facility submits a report within CEDRI, I cannot see it from my account - even though our facility ID/certifier is the same.
- This platform does not communicate with state EPA offices. We have to submit it in CEDRI then we have to submit it to the state agency. It would be nice if they could get it from CEDRI.
- When managing multiple facilities, it is difficult to find said facilities in the system. Also, there are multiple options for one facility, making it difficult to know when to choose one.
- Facilities must submit data to multiple different EPA systems (e.g., SLT systems, CEDRI, TRI, e-GGRT, EIS, CAERS if participating)
- Updating and editing facilities is cumbersome. Multiple versions of the same facility exist, making maintenance difficult and unclear which to use.

CAERS

- When you have a bunch of error codes it can be confusing figuring out how to correct them after you run check.

- I don't know how the Operating Details are used, but avg. per day or week is confusing/inaccurate for units that run intermittently.
- In CAERS it would help to have a smoother transition between Hazardous Air Pollutants (HAPs) reporting years and non-HAPs reporting years allowing history to remain over the 3-year gap.
- CAERS should recognize the SCC Code and request appropriate data and units. For Example, all templates ask for fuel consumption. It should know that the SCC Code is a Cooling Tower, and that for cooling towers only certain data is needed; recirculation flow, conductivity etc., IT should know.
- I had trouble getting calculations to line up. We have an internal emission calculation system and the CAERS calculations didn't always agree, and even at very low levels of emissions, the system would generate an error if the reported emissions were different than what I reported. For HAP, emissions can be so small that the 20% difference doesn't result in a very different value - rounding.

Facility Inventory

- Easy to mistakenly make new duplicate facilities because existing facilities are difficult to find.
- Each EPA system has a different version of the facility. They may have different addresses, latitudinal/longitudinal coordinates, or different units. Making it hard to know which version is most accurate.
- Search tools in FRS and CEDRI rarely return expected results.
- Facility IDs are different in every system, making it hard to find the same facility in each system.
- My facility has one reporter for reports in one system, and another for other systems. We don't know if the other reporting is reporting the same thing we are.

Miscellaneous

- Have FAQ or other guidance on how to remove access from former employees or when people change roles. An admin role or something that would make it easier to maintain facilities and people in the system in batch.
- The Unified Platform should have information per state, so the reporters can find out which of these tools they must use. It is difficult to find guidance on this. How do we figure out what we need to use?
- Users would like to have the ability to send a certified and completed report directly to a state agency email address and receive confirmation it was sent.
- Be able to see reports created by coworkers at the same facility. Needed when I verify the report has been successfully submitted by RO.

Emissions EPA Tribal Session

Listening sessions with Tribal authorities are still ongoing. This document will be updated with the relevant feedback we receive from them.

Regulatory SLT Sessions

What We Heard from Stakeholders at a High Level

Feedback identified the need to focus on modernizing and stabilizing the SPeCS for SIPs and SPeCS for EE systems to address the challenges users experience. Improvements should include updating the user interface, strengthening data management to prevent data loss, and ensuring that submittal actions function reliably. The systems should be enhanced to support larger file sizes and formats, while notifications should be improved to provide clearer, more useful information. Users should receive improved tutorial resources, and the system should offer more streamlined, dashboard-focused data processes for a clearer, more efficient experience.

What We Heard from the Stakeholders about the Systems

SPeCS for SIPs

The most active categories were Data Submission, Errors/Feedback/Notifications, Data Availability and Support. Below are the top observed pain points in these categories.

SIPs Data Submission:

- System is slow or down which prevents the ability to submit a SIP in a reasonable time.
- Plans that are not officially part of the SIP (e.g., 111(d) state plans) do not have an obvious "submission type" category to make a submission. There should be all common options to make categorization easier.
- The system may not appear to be responding which allows for multiple accidental submissions of the same SIP.
- The categories in SPeCS tend to be restrictive and it is difficult to fit submissions into those neat boxes.
- Limited file upload size creates challenges when submitting a SIP.

SIPs Errors, Feedback, and Notifications

- Naming of files and naming of submittal titles have character quirks that will cause an error when trying to submit a SIP, but the system will not clearly identify what is causing the error such as invalid characters.
- Ensure the EPA gets notified that a state has submitted a new SIP. Currently we must send separate emails to regional office to confirm receipt.
- Everyone in a group gets notified by email of a SIP submission which can be overwhelming. Make this optional for those who do want to be informed of all submissions.

SIPs Data Availability

- Users would like the ability to view official SIP submittals from other states.
- It would be extremely helpful if by clicking on a state on the attainment map, you could access the applicable SIPs, designation requests, Federal Register (FR) notices, etc. all linked together.

- Users would love to know the names of the EPA staff who are reviewing my submission.

SIPs Support

- EPA to post pre-recorded video tutorials that can be used by new users to walk them through the submission process. This should be standard for everything. It would greatly reduce the training burden for SLTs.
- A training video on navigating the SIP submission type field to guide new folks on navigating where numerous SIPs could fit for submission via SPeCS.

SPeCS for EE

With fewer comments and several of the same challenges identified under SPeCS for SIPs, the following represents the highest voted pain points under EEs.

- We need a public-facing dashboard showing submitted EE Demonstrations & Mitigation Plans. Currently, the public nor other agencies can see EE demonstrations submitted by others.
- We have had submissions that have languished or not been submitted and must send email backups to the regional office.
- The system kept wiping out certain fields between when you began preparing the submission and when you went back in to add more or formally submit.
- The system did not work when an EE demonstration was submitted - even after much assistance from the EPA region. Eventually the demonstration was emailed.
- Event type dropdown is limiting; we will often submit an exceptional event for an entire year so there might be multiple event types.

Greenbook

With only four comments submitted, the highest voted feedback was related to streamlining data.

- The Greenbook has a lot of options, links, and tables to choose from (e.g., nonattainment areas [NAA] by classification, NAA state/county/area, NAA state/area/county, NAA state/county). It would be helpful to streamline this somehow.

Regulatory EPA Regional Session

What We Heard from the Stakeholders at a High Level

The listening session identified a clear need to improve regulatory systems by ensuring platform performance and data integrity and increasing flexibility to reflect real-world regulatory scenarios such as multi-NAAQS, multi-event, and partial actions. Improvements should be focused on search, discoverability, and transparency to enable timely insight without manual reporting. The system should provide clearer roles, permissions and regional autonomy to reduce HQ bottlenecks and operational delays. In addition, the platform should enhance usability, accessibility, and records management through inline file review and built-in compliance, while maintaining current, authoritative reference data aligned with EPA sources. Collectively, these

improvements represent a modern and trustworthy regulatory platform that supports efficient execution for all users.

What We Heard from the Stakeholders about the Systems

SPeCS for SIPs

The most active categories were Workflow, Performance, and Data Submission. Below are the top observed pain points in these categories.

SIPs Workflow, Performance, and Data Submission

- Elements are created per standard and per bump-up level. Right now, there is no place where this list of elements exists and no way for us to update them as a group. This has never worked in the existing system.
- SPeCS is mainly used for SIP submittals under section 110, but it is also used by states to submit delegation requests under section 111, 112, and 129 of the CAA. States submit these requests under the other category, but it would be nice to have it specified in some way so the SPeCS lead in region knows what it is and who it should go to.
- If states are allowed to submit things other than SIPs in this clearinghouse, they should have the ability to tag them as non-SIPs (which would also eliminate the need to answer many of the certification questions).
- Sometimes the system doesn't properly categorize the "latest action." You can have final action information in place, but the system will still say it's backlogged.
- Glitches/errors in SPeCS cannot be fixed without contractors or HQ support; could be helpful with more regional permissions. Example: review pages not showing the correct status. This feeds into reports/data pulled by HQ that feeds into BFS.

SPeCS for Exceptional Events

The most active categories were Workflow and Performance. Below are the top observed pain points in these categories.

Exceptional Events Workflow and Performance

- For state submittals with multiple monitors/dates, SPeCS does not let agencies submit multiple specific dates/monitors but rather forces them to select a range of dates. Multiple event types may exist in one submittal as well.
- It would be helpful if an event could be created in SPeCS, then documents associated with that event can be uploaded by the agency AND the EPA. As an example of documents, INIs, draft demos, EPA's review of draft demos with comments, final demos, cover letters, EPA's concurrence/nonconcurrence/deferral, etc.
- If a state submits a final demo via email, there is no way for EPA to upload the files into SPeCS for tracking purposes.
- The "Add/Edit Review Page Action History" should be properties tied to files rather than a separate field/entry point. For example, if a state submits a demonstration, the EPA region should be able to mark that file as "Under Review," or "partially concurred," etc.

Greenbook

With only three comments submitted the feedback was related to Data Reliability.

- Greenbook GIS boundary and population data are outdated and do not match GIS data on EPA's GeoPlatform.

Moving Forward

While this document summarizes/highlights some of the most commonly observed pain points in sessions, EPA is considering all the feedback as we undertake next steps.

Have questions? Please send them to UP@epa.gov.

Appendix

This Appendix provides a **comprehensive list of the top-rated pain points** provided by SLT agencies, EPA regional offices, and industry stakeholders during the listening sessions for each business line. Some pain points may appear duplicative across sessions or stakeholder groups, however, this duplication reflects common challenges experienced by multiple users. As a reminder, the full set of pain points will be reviewed throughout ongoing external engagements and used to inform future Unified Platform Project requirements, design decisions, and prioritization efforts.

Appendix A: Ambient

Appendix A contains the primary pain points raised by SLT agencies and EPA regional offices during ambient air listening sessions. These inputs provide detailed context to support future Unified Platform Project design and prioritization efforts.

Ambient - Primary List of SLT Pain Points by System

Air Quality System (AQS)

AQS Reports

- Some data is not available in a report/not having a report that does what you need.
- Hard to know which report does what, and reports should clearly indicate what they are.
- Hard to get data in appropriate format.
- Hard to digest, lots of readability issues, formatted poorly.
- Reports are not customizable.
- It would be helpful if the reports included the option to translate the AQS codes so they would also show site names, parameters, etc.
- Must run a separate report (AMP450 - Quicklook Criteria Parameters) to certify 5 min SO₂ & PM coarse data. The AMP600 (Certification Evaluation and Concurrence Report) often needs to run several times to identify missing data or issues which need correction.
- It would be nice to get statistical reports for non-NAAQS parameters.
- The design value report in AQS does not always match the spreadsheet of design values posted on EPA's website.
- AQS doesn't keep up with changing regulations/changes to the Code of Federal Regulations (CFR). For example, there was a change in 2024 to the way the precision estimate (CV-UB) is calculated for AMP 600 report.
- Reports that the public could run would save our agency a lot of time.
- A short and concise "cheat sheet" for AQS reports would be helpful, especially for users that don't frequently pull reports.

AQS Data Submission

- Unable to submit multiple files & unable to submit more frequent data.
- It is frustrating that the ENSC upload is separate.

- Population data needed for the 5-year assessment should be in the system.
- Work with existing air quality data management systems (e.g., AirVision, LEADS, DRDAS, etc.) to allow seamless integration/upload to AQS instead of having multiple apps/processes.
- Troubleshooting data loading errors using PDF Error Report is extremely time consuming and prone to missing data that wasn't loaded.
- Unable to submit multiple files & unable to submit more frequent data.
- Unable to easily add flags or null codes to large amounts of data once data is in AQS.

AQS Sites & Monitors

- Not user friendly, especially when adding new sites & parameters. Should be able to set start date and have autofill for information. Guided steps would be good too.
- Challenging maintaining site & monitor metadata.
- Challenging switching primary & QA collocated monitors at a site.
- Linking monitors when method codes change for the same parameter would be awesome (example: 236 v 636 for PM2.5 method code) to demonstrate completeness for the entire year (from Reports section).
- Bring back QA Eye.
- Having to update each parameter for a monitoring station individually. There should be an option to update them all at once. For example, sampling frequency.

AQS Support

- It is difficult to train new staff, as few people understand the system and new users have a tough time learning.
- Time-consuming to help users add new parameter codes or method codes.
- Acceptable code combinations are not detailed.
- There should be a working AQS help feature where - you can pick a topic - such as 'set up a new site'- and you are guided in the process. Also, the error and check functions are not helpful.
- Are there strong preferences/guidelines for when an ambient Parameter Occurrence Code (POC) number needs to change? Records get very complicated when a new POC is established just for a change in Method. If not managed through training, maybe limit POC creation to supervisors?
- AQS help documents (user guide and certification process) are in separate locations and often outdated.
- Tribal-specific support is very needed.
- Need better documentation highlighting different reports that can be extracted.
- More regular official training or videos on how to use AQS/AirNow. Most individuals in our organization have learned through institutional knowledge of "what works" vs the intended workflow due to limited training and current training materials.
- Unfortunately, only select monitoring staff in SLTs have AQS knowledge and experience. This means that those with AQS experience become the default person to run reports

and do any other chore with AQS. Expanding training and improving the ability for report self-service would be good.

- Transparency on the code employed to generate objects that the end user interacts with. Currently, AQS appears to be a black box, which makes it difficult to understand what it is doing correctly or incorrectly. To my knowledge, there is no forum for reporting bugs for AQS.
- It would be nice to have a cheat sheet of common mistakes that get forgotten over time. I don't submit AQS on a daily basis.

AQS Errors, Feedback, & Notifications

- Error messages are hard to understand or just missing. It's often impossible to know what's wrong/erroring and how to fix it. Error messages should state the exact error, not a general nonsense description.
- Users often need help understanding workflows for loading different data types into AQS.
- Perhaps show equations used for AQS calculations.
- There is no notification (email) when our data is certified by EPA, so we have to keep checking back, and EPA does not receive notification when data are certified by PQAOs.
- The files can come back empty, and you have no idea why.
- Poor messaging: Impossible to know what's wrong/erroring and how to fix it.
- Any changes to data or metadata made by AQS or AQS contractors should be relayed to site owners.
- Sometimes AQS reports are broken, and it takes a long time to get fixed. I wish there was a better way to know which reports are not functional/being repaired and get notified when they do work again.
- Need for plain language throughout AQS, AirNow and EPA's site to better assist public and experienced users.
- When errors are made, it is hard to clear data out of AQS.
- For data lines that are not accepted by AQS (errors) when submitting flat text files, auto-generate the problematic data lines in a new text file (or something) so it's easy to identify which data needs to be modified and re-submitted.

AirNow

- Public vs SLT agency interpretation of the Air Quality Index (AQI).
- Inability to submit more frequent data.
- Differences between fire and smoke map and AirNow raise questions from the public.
- Delays after sending data.
- Load times are laggy/slow sometimes.
- NowCast AQI vs daily AQI is hard to explain.
- Lack of QA/instrument data.
- Would like ability to qualify the status of the data, being able to easily ascertain status of data: preliminary, QAd, certified.
- Cumbersome data query forms and difficult to get large datasets out.

- AirNow's default Quality Control (QC) flag levels are relatively low and will flag valid PM2.5 data during wildfire smoke events. We raise those QC flag levels, so we don't lose valid PM2.5 data, but then they don't flag actual validity issues. The ability to use seasonally variable QC levels would help this issue.
- The fire and smoke map has only current data. Users Would like a 24-72 hour look back or allow historical view with date picker.
- AirNow data query has so many steps (single arrows and double arrows) - it would help to be able to save favorites.
- Consistent monitor and site set up in AirNow and AQS - one place that populates both.
- Better explanations (and data from verifications) about performance of national correction factors for PM sensors (it tends to underpredict PM for normal day-to-day concentrations here).
- Location data would be helpful for sites when retrieving other SLT data.
- New site AQS codes in AirNowTech have the preface of "840" which makes it difficult to query old and new sites at the same time. It's easy to miss sites.
- There should be no manual QC of AirNow data by contractors outside of the reporting organization. Instances of overriding QC/validity flags by contractors during times of extreme changes due to wildfire smoke or dust have happened leading to erroneous alerts or no alerts at all.

Ambient - Primary List of Tribal-Specific Pain Points

This session was held exclusively with Tribal partners to capture perspectives specific to Tribal air programs and operational contexts. The feedback below reflects all pain points shared during the session.

- Tribes want to control their data and not necessarily be linked or associated with a state.
- Tribes are at a significant disadvantage due to the fact that Tribes were not considered as regulatory air monitoring authorities when the system was initially built. As such, the process to allow Tribes to input data has been confusing and not clear.
- Submitting data is challenging where CSV data is converted to XML format for submission to CDX.
- More support and training are needed now and will be needed for the new system.
- Many Tribes utilize the QREST application supported by TAMS for data submission; will need to ensure the new system can accommodate this.
- AQS is complex and offers a high bar for entry to new staff to learn and utilize; this problem compounds due to the need of many Tribal staff to wear many hats.
- AirNow map is helpful but the delay in data compared to PurpleAir means our local residents and staff prefer PurpleAir to see current conditions, even though AirNow shows other helpful data like smoke plumes.

Ambient - Primary List of EPA Regional Pain Points by System

Air Quality System (AQS)

Below are the highest-voted pain points in the most active categories from the EPA Regions Listening Sessions. The most active categories were Reports & Data Availability, Sites & Monitors, Errors/Feedback/Notifications, and Administration & User Management.

AQS Reports & Data Availability

- Ability to tell if there are any changes to data and tell who made the changes/when they were made.
- Users would like to have a dashboard & report for annual monitoring network plan.
- Be able to run AQS data completeness reports for any time period, not limited to a single year.
- Recommend creating a quarterly data review report that summarizes any information that the EPA regions need to review in their quarterly data reviews (e.g., QA data completeness).
- More transparency when things are changed in AQS after original upload (pollutant data and site/monitor metadata).
- A way to evaluate when data have been updated/deleted as well as audit trails to see what changed.
- More info on TSAs - sites visited, lab info, etc.
- AQS Reports to help with TSA prep: Evaluate data (e.g., completeness, summary stats, QA/QC frequency, etc.), sites, monitors, data coding, etc.
- Downloading data for different pollutants produces files with different columns and file types.

AQS Sites & Monitors

- Easier way to create new monitors.
- Tracking Annual Monitoring Network Plans, approval, cross verification of sites and site changes. Also, possible repository.
- AQS pulls info on site CBSA from the U.S. Census Bureau but hasn't updated to the latest CBSA boundaries for almost a decade.

AQS Errors, Feedback, & Notifications

- Notification when SLT data upload is late (as an option).
- AMP600- send notification when data is certified/concurred/flag flips back to 'M'.
- It would be nice if EPA regions were notified when an SLT adds an EE or NAAQS Exclusion.
- Notifications would be helpful for data certification (when agency certifies or changes previously certified data).

AQS Administration & User Management

- Simplify new user registration process. Users should be able to register through the platform instead of sending PDFs through email to the regional office. Notifications could be sent to their EPA regional AQS contact.
- Better AQS user management for the regional leads. Allow us to pull and update AQS user contact lists approve/disapprove users, etc.

AirNow

Most of what was identified for AirNow concerns one of the following: Reports & Data Availability, Maps, particularly AirNowTech Navigator features, and Data Aggregation for the purposes of calculating rolling preliminary Design Values. The full list of AirNow pain points is displayed below.

- If integrating AirNow and AQS data, have a clear delineation between preliminary AirNow data and verified/validated AQS data.
- AirNowTech tools integration with AQS data...such as the ability to do wind or pollution roses.
- Regions need to have access to all the same tools and modules as SLTs so that we can assist our partners.
- Currently AirNowTech functions very differently from AQS, it would be helpful if they're similar since AirNowTech gives access to more real-time data. It could be useful for keeping tabs on which monitors are reporting prior to data submittal.
- Improved mapping options, ability to pull maps of active and/or historic sites as well as all pollutants rather than just by single pollutants.
- Notification when reports don't run when it is sent as a PDF to email.
- AirNow API txt files do not update even when the data updates in AirNow. For example, let's say a monitor was not reporting for a day but backfills the next day. The API txt file would be blank rather than have the backfilled data.
- Easier way for non-API users to access historical data and Design Values from AirNow.
- Users would like to integrate sensor data into AirNow.
- More clarity on the delineation between AirNow and the Fire and Smoke Map (FASM).
- The Unified Platform could add Air Quality Alerts from the National Weather Service to the AirNow or FASM maps.
- Archiving the FASM.
- AirNowTech Navigator: would be helpful for EEs if the Navigator had High-Resolution Rapid Refresh (HRRR)/Rapid Refresh (RAP)/Firework smoke model forecasts.
- AirNowTech Navigator: when saving maps – Hybrid Single-Particle Lagrangian Integrated Trajectory (HYSPLIT)/other map layers may not save.
- AirNowTech Navigator: it would be helpful for EEs if the Navigator had surface/upper-level meteorological maps.
- AirNowTech Navigator: it would be helpful for EEs if the Navigator could compute longer HYSPLIT trajectories. Current limit is 72 hours.

- The ability to mesh AirNow and AQS data to calculate preliminary dynamic vapor sorption (DVS), similar to the Ozone Watch tool. And allow queries with specific monitors to be saved for easy daily pulls.
- The ability to select monitors by NAA in the AirNowTech data queries.
- Ensure real-time data processing so that agentic artificial intelligence (AI) can analyze large volumes of air quality data in real-time, identifying trends, anomalies, and potential health risks to allow for timely interventions and policy adjustments.
- Ensure AI compatibility and functions to gather and interpret large amounts of data sets.
- Consider incorporating the EE Design Value tool, especially in real time.
- Consider adding these models to AirNowTech for EEs: EPA's Met Adjusted Ozone Trends, EPA's Expedited Modeling of Burn Events Results (EMBER), and the University of Washington's Generalized Additive Models (GAMs) tool.

Appendix B: Emissions

Appendix B presents the complete collection of priority pain points identified across emissions-related listening sessions with SLT agencies, EPA regions, and industries. The feedback captures common and program-specific challenges that will inform emissions-focused functionality for the Unified Platform Project.

Emissions - Primary List of SLT Pain Points by Category

The most active categories were Facility Inventory, Preparing and Quality Assuring Data, and Data Submission.

Preparing, Quality Assuring, & Submitting Data

- EIS errors are difficult to understand and fix. For example, QA check #2323 is misleading, it points to process instead of control pollutant table and does not allow values > 99.9% for reduction efficiency.
- A WebFIRE list of emission factors and a list of SCCs cannot be accessed from inside EIS or the Bridge Tool.
- EIS facility feedback reports and error messages may reference multiple interconnected data elements (e.g., paths, pollutants, statuses) but not adequately describe how to resolve the errors, even for experienced inventory developers.
- Fixing errors often requires downloading spreadsheets that contain the errors, and looking up the errors in a list, and the error messages may not be clear.
- Finding out about a code table change during SLT submission to EIS, instead of ahead of time is frustrating.
- We have a lot of issues with submitting multiple QA files, and when we fix the initial errors, we will resubmit and then get completely new errors. You get one set of errors from EIS after submission and fix them. But when you resubmit the corrected data, then you get different errors unrelated to the previous set that you must also fix. You should get a complete set of errors the first time you submit. It would be helpful if EIS would identify all errors in the original QA file so we can fix everything at the same time.
- Validations (i.e., QA checks) from EIS are introduced after the SLT has already collected data from industry, when the SLT has compiled all the data to submit to EPA. Validations should be announced a year in advance so we can catch them early. Additionally, it would be helpful to know what the errors are before sending reports to EIS.
- Finding (i.e., knowing) the correct SCC code to apply for a given process is difficult and often requires correction by SLTs.
- Bridge Tool difficulties with formatting numbers as text causing errors.
- Need expected pollutants and related emission factors up-front in the Unified Platform. If WebFIRE could flag SCCs with no emission factors and suggest the closest applicable SCC's emission factor to use this would improve QA review.
- Submitting EIS files through the CDX Node is convoluted, time consuming, and error prone. You must go into EIS separately after submission via CDX Node to see if there

were submission errors. Large files must be broken down into smaller files so the upload will go through which can be highly time-consuming (*i.e.*, hours).

- SLTs and facilities must submit data to multiple different systems (*e.g.*, CEDRI, Toxics Release Inventory (TRI), Electronic Greenhouse Gas Reporting Tool (e-GGRT), EIS, CAERS, if participating).
- Users Need coordination between submission deadlines to EIS and AQS.
- EIS control devices reporting is complex.
- CAERS QA's data but we still encounter additional QA checks when the data is submitted to EIS from CAERS.
- It is not always clear when EIS is open for submittals.
- Submissions to EIS should be more granular as currently it isn't clear when new information will overwrite all existing data (*i.e.*, all or nothing data dump) or allow for an addition.
- Changes in schema should consider impacts to previous year's data and the fact that corrections to previous year's data may be needed after the schema change. These previous year's data changes are harder to make (*e.g.*, after CERS V2 changed it was hard to correct previous year's data).
- Facilities have different reporters for different systems (*e.g.*, EIS and CEDRI) and we don't know if they are reporting consistently.
- WebFIRE searches rarely return expected results.
- Improve validations in the CAERS Excel template to avoid having errors when uploading to CAERS.
- Need more clarity on required versus nice to have data fields.
- Different SLTs have different data requirements in addition to the Federal requirements.
- Updates to the Bridge Tool require changes in how data is prepared and submitted.
- It takes many hours to process all point source data in batches to upload through the Bridge Tool.
- CAERS allows facilities to change too many things that should be static information.
- There is no way to upload facility data from state licensing databases to CAERS, which causes facilities or states to manually enter data unnecessarily.
- When EPA locks data elements in EIS, this makes review and QA hard for SLTs who must get those changes made via support requests.
- There needs to be a way to note the difference between actual values versus expected values being submitted to EIS.
- There should be a way to auto calculate release point flow rates and velocities with different units of measure (*e.g.*, Actual Cubic Feet per Minute [ACFM], feet per second [FPS], etc.).
- EPA should not just overwrite SLT data, but there would be a cooperative solution so that values are the same.

Facility Inventory

- Facility data across systems is inconsistent. For example, facility IDs, addresses, units may be different in every system. This makes it hard to match facilities between systems.
- Release point lat/long tolerance requirements in EIS are too tight for large facilities.
- Facilities sometimes have the wrong lat/long coordinates (the SLTs and EPA may not have the same ones).
- Tribal reservations may not have 911 addresses. Some towns may share a zip code across different political boundaries. Allow those that are updating their facilities on Tribal lands to override any prefilled address data that might no longer be applicable.
- Facility searches in CEDRI (e.g., FRS) don't return good results. It's easy to create duplicates because existing facilities are hard to find.
- Need an easier way to update facility data in bulk (e.g., update Agency IDs without disrupting their relationship with EIS IDs).
- Updating a single site in EIS is too cumbersome, the user interface (UI) isn't easy to navigate.
- Resolving duplicate sites in EIS isn't easy.
- We can't mark control paths as "no longer in use".
- Need to be able to track temporal changes in facility and sub-facility data.
- Have a hover-over to see sub-facility details on the screen for a given component ID.
- Ability to update the facility component IDs for facilities (CAERS) instead of marking them Performance Specifications (PS) to make an ID change.
- In ERT you can't clarify that the limits apply to the outlet. When test results are entered for both inlet and outlet, it marks the inlet results as exceeding the limits.
- Handling shutdown units requires putting in the years' worth of data, then retiring them the following year.
- Allow for cross-referencing facility data with other systems (e.g., ICIS, Clean Air Markets Division [CAMD] Office of Regulatory Information Systems [ORIS] IDs, RACT/BACT/LAER Clearinghouse [RBLC]).
- CEDRI doesn't allow the state to see the SLT's Agency ID, but states rely on these to work with their facilities.
- CEDRI doesn't allow searches by keyword.
- EIS thinks facilities are potential duplicates if they have the same lat/long but the facility could be on the other side of the state because the QA checks don't take both lat and long together into account.
- Currently, EIS is both a submission space for SLTs and a workspace for EPA. EPA overrides SLT data. It shouldn't be an "either/or". Both should be supported.
- Need to handle many-to-one and one-to-many cross-referencing.
- Add mapping capabilities to find different lat/long types.
- Avoid updating EIS schema when it is too late for SLTs to adjust (just a few months before the reporting deadline).

Generating Reports & Searching Data

- EIS report descriptions should be expanded to be clearer about which data will be in the report. Unless you are very familiar with the data and the system, it is hard to know whether you need to request a report for state by sector, state by data category, and state by sector-data category, for example.
- Any data visualization by major emissions inventory category (*i.e.*, point, nonpoint, on road, nonroad, SCC, etc.) would be helpful. These could help identify trends between NEI years. Maybe it could have a map visualization feature.
- It is uncertain how long a report will take to generate in EIS.
- Emissions data comparisons across emissions systems are difficult. For example: you cannot see stack test (*e.g.*, performance tests, RATA) data submitted to CEDRI from EIS.
- Getting facility/unit specific multi-year emission information should be much easier in EIS.
- A Readme file with more detailed explanations of the column headings would be helpful in EIS Completeness Reports. The field names are generally self-explanatory, but a more complete explanation would be helpful for some. An explanation of equations, calculations, units (*e.g.*, tpy etc.).
- Users need the ability to link WebFIRE emission factors to AP-42 documentation, and to any underlying tests so the SLT can research emission factors.
- Allow a report to be for SIP quality inventories for point sources (for ozone, in units of ozone season tons per day [OSTD]).
- CEDRI filter options, under Report Name, for “Other” but they are not inclusive of each other.
- See a stack test summary table in CEDRI, rather than having to download an entire Access Database.
- EIS facility data snapshot XML file doesn’t contain complete data as specified in the schema file (*i.e.*, XSD). This requires specifying custom facility configuration reports, downloading CSV files, and manually importing the needed values. Some examples are latitudinal/longitudinal tolerance values and locked field flags.

Training & Documentation Needs

- Lots of nuances that are not captured in training materials for new staff.
- To my knowledge, the last time EPA created a document with full reporting instructions was under the 2008 NEI Implementation Plan. That was quite a while ago.
- EIS Bridge Tools are difficult to learn.
- ERT is difficult to learn and troubleshoot.
- There is very little documentation on how to prepare EIS submissions and correct errors. This makes knowledge transfer to new staff difficult.
- Training should always be ongoing and provided at pre-conference training.
- Keep Tribes in mind when things change. Tribal air programs need their own training and QA sessions. Hard to learn anything when the audience is generally a more advanced, mature, and developed organization.

- There's also a need for guidance on reporting data for facilities where emissions aren't tracked at a unit level and better guidance for selecting correct SCCs.
- There should be documentation and training materials for industry reporters (*e.g.*, facilities and contractors).
- Training on which reports are available to download in EIS is needed.
- Video training from within the application.
- Point to the most updated training from inside the EIS gateway. Don't retain outdated documentation inside the system.

System Performance

This section highlights concerns about the speed and efficiency of various applications.

- The screen load time being slow in EIS makes manually editing data impractical.
- It can take hours to upload EIS files.
- EIS times out too quickly.
- Noticeable slowdown occurs during heavy reporting times.
- CAERS frequently crashes during QA checks/loading the report summary tab if a facility has a large number of units.
- ERT can be temperamental, especially when the Project Data Set is on a server instead of a local hard drive.
- Catching minor glitches like CDX before submitting gives the option to provide an email address for feedback, but in the end, you do not need to provide this, and it actually causes a failure.
- When working in the EPA EIS system, the user is timed out very quickly if they are not interacting with the system directly. It would be nice if the timeout timer were extended.
- It can take a long time to receive feedback reports from EIS.
- The Environmental Information Exchange Network Services Center (ENSC) portal glitches cause delays (*e.g.*, entering an email that is not required actually prevents file upload).

Miscellaneous

- More clarification is needed between data that is required by the regulations vs data that is nice to have and helpful for emissions inventory development.
- Keep in mind that unless the data is clearly specified in Federal regulations, every SLT may have different rules and additional requirements that heavily impact the data.
- Users Would like to crosscheck stack test data ERT/CDR to EIS interconnectedness.
- CROMERR certification process should be easier. Submittals should be certified by source staff that meet the definition of RO.
- Unified Platform has to be compatible with Windsor products.
- Ability to link SLT system to Unified Platform (*e.g.*, VA's existing comprehensive environmental database) via APIs, for example.

Emissions - Primary List of EPA Regional Pain Points by System

ERT

- Regional users use ERT to see compliance test results to verify the source complies with emissions limits. There's an option to include a pdf written report. The longer written discussion can be very useful, not just the data.
- Issues with opening some old ERT files in the latest version.

CEDRI

- Some Acid Rain, CSAPR, and MATS data collected via the ECMPS goes to CEDRI. Could we consider pulling ECMPS data to display in CEDRI? Some of the data never makes it to CEDRI (e.g., annual emissions data from power plants never make it to CEDRI). You can get it from the acid rain system, but it would be great to have one location where you can see everything.
- It would be nice if CEDRI had a dedicated way for facilities to make performance test notifications and then show them on a calendar.
- CEDRI works well.
- Getting initial access to CEDRI (several years ago for me) was cumbersome. Not sure if this has been improved but it would be good for access to be easier.

EIS

- Regional users use EIS to look at previous year's emissions to understand SIP and FOIA requests (e.g., emissions from 2012 to now). Data is also used to see transport of ultra fine particles and ozone. Data is used for weight of evidence (e.g., how a unit affected emissions).
- Comparisons across years: regions rely on year-to-year emissions inventory data comparisons. Currently it is not easy to get emissions data for multiple years quickly or do comparisons between years easily.
 - I spent 2-3 days downloading NEI data from EIS, compiling it into individual spreadsheets, and then using python to combine files. Once that data is put into PowerBI the data can be accessed within seconds.
 - Users would like to have frequently requested trend reports and trend lines, rather than having to pull the data for individual years manually each time and then process the data to create the relevant comparisons.
 - Users would like the ability to do comparisons across years for individual facilities (i.e., Facility Site Detail page), and units (e.g., last 8 years).
 - Have better data visualization for reports.
 - Improve process time.
- Improve system speed: You have to wait a long time to get reports because the system is really slow.
 - Ability to generate reports faster.
 - Improve EIS' ability to handle large databases.

- Fix whatever issues cause facility search function on home page not to work sometimes.
 - Make it faster to search in the 'Facility Inventory and Point Emissions' tab.
- Reconciling data across systems:
 - Users should not have to reconcile different NEI databases: what's in the trends EPA site, versus what EIS is providing, what's on the data summaries website for the triennial years (e.g., there may have been a methodology update for the emissions trends).
 - May use Envirofacts for a certain pollutant, multiple years all in a row. In EIS we can only get one NEI. When we do weight of evidence analysis, we can see how a unit affected emissions. Users have to wait hours to days until an error is fixed. We need the ability to find the data in other databases and also find data from TRI for a facility.
 - Could the Unified Platform share that a facility you are looking at in EIS has submitted reports in CEDRI and other places such as ICIS also?
- Tagging and notifications:
 - If we could tag ourselves for a notification when specific entities submit data, that would be great. Specifically, ability to know when states and Tribes in my region submit to EIS (as well as specific facilities when needed). This would allow me to passively track submittals instead of always having to actively look up the information throughout the year. That way you also don't have to re-learn how to do this process.
 - Ability to tag EPA contacts so it automatically notifies the EPA contact that information for facility X has been submitted.
- Make it easier to find the calculation method that was used for a specific emissions unit/process – right now it is very hidden. Users would like to see it and know if there is a discrepancy between NEI and TRI.
- When running a report, users would like to have the ability to input EIS Facility IDs directly instead of attaching a .csv file.
- Make it easier to track how augmentation profiles are applied to a given facility.
- Add a second option for a facility name, so we can put a couple of possible options when we don't know the facility name to enhance search capabilities.
- Add small trainings if we forgot how to do something so we can re-learn quickly.
- Support on alternative sources of information for reporting: Have a section in the Unified Platform that tracks/links to "vetted" outside databases to get supplemental data that EPA may not have (e.g., Utah Dept. of Oil and Gas has more detailed data available than what Utah reports to EIS, so is helpful for R8 in developing EI's.) I know about this data existing, but others interested in Utah O&G aren't necessarily going to know that this data is out there, so this could help us all share good data resources beyond our own "walls." Additionally, it would be good to have resources on how we can use outside data safely (i.e., legally, etc.). Also training on methods/how to use certain data.
- State vs. Facility Control over Facility Inventory: There was discussion about the difficulty of merging CEDRI and EIS data because some states want to base inventory strictly on

permits and "not let the facility tinker with it," whereas others are okay with facility updates.

- Confusion as to which email and password to use in login.gov leading to password resets.

Emissions - Primary List of Industry User Pain Points by System

ERT

- UX is not intuitive.
- The more pulldown/searchable reference fields the systems provide, the better (e.g., SCCs). It is hard to find the right SCCs; the list cannot be accessed from inside ERT.
- We have to outsource ERTs because it is so time consuming to do them. Also, pulling the PDFs for ERT is difficult.
- A contractor has to upload the reports for us. That costs money.
- ERT (maybe when it passes to WebFIRE) appears to make calculation errors for some stack test methods, mostly due to rounding of constants and in between steps instead of rounding at the end. This presents a certification challenge when the ERT output and stack test report do not match.
- Installing ERT on the desktop can be difficult.
- The updated gasoline rules now require the use of ERT for Performance Evaluations for Continuous Emission Monitoring Systems (i.e., RATAs). ERT does not work for RATAs. If this is user error, then we need an ERT guide that is specific to RATAs (i.e., the section of the current guide does not work.).
- Issues with Microsoft Access:
 - My company does not allow any software that uses macros, so I am not able to open and use ERT without IT intervention.
 - ERT's Access configuration often presents issues with its navigation tabs and data entry fields. For instance, when entering relative accuracy audit details, users must input a calibration bottle and run information in a specific sequence; otherwise, the final results may not match the vendor report. The interface contains several tabs and options that are sometimes irrelevant to RATA or performance tests. The whole process tends to be time consuming. ERT entries are taken from vendor test hard copy reports. Often, we rely on the stack test vendor to provide information and prepare ERT reports.
 - There are software compatibility issues; Windows 11 vs MS Access Runtime.
 - The MS Access program which drives the ERT should be eliminated. Many companies' IT systems do not support MS, and it is very challenging to download and use the ERT program. Simply allowing stack testers to complete and submit ERT files is very risky if these files cannot be adequately reviewed and edited by facility environmental staff.
 - We collect data in spreadsheets and internal databases (many of which are also encountering the issues another person mentioned having with Microsoft Access).

- We have to contract out creation of ERT files to our testing company. I think it's a file type issue and that we can't create the file ourselves for some reason.
- Reporters cannot submit more than one SCC per ERT report.
- Macro-enabled document - IT has to run multiple allowances to get the document to start (*i.e.*, works fine after, just initial hurdle to get it to open).
- Data is collected in company specific spreadsheets and calculated. We do not use ERT for anything beyond reporting.
- ERT was built for stack testing. Entering Subpart S hard pipe testing was difficult to figure out initially as it is not a traditional stack test.

WebFIRE

- Often there is very little data/reports available.
- WebFIRE search tools for emissions factors and reports rarely return expected results.
- There should be a search engine that includes SCC, equipment description and associated Emission Factors for that system. For example, I want to select AP-42 Emission Factors for Natural Gas Combustion for a burner. Only certain SCC Codes will allow the U.S. EPA Emission Factors from AP-42 Natural Gas Combustion to be available from the dropdown menu. WebFIRE and the SCC Code should be linked so that you can pick the process and then pick the Emission Factors. Allow for the search to narrow down to what your equipment is and what type of facility and what's feeding into it, what the size and capacity is for the equipment to see what you're trying to compare against.

CEDRI

- Would it be possible to better standardize the CEDRI reporting template across different MACT standards? I realize the requirements are different, but it seems the general site information tab and flow of information could be improved.
- Sector-specific reporting templates often have macros which are a huge pain to get permitted through IT.
- Being able to sign and submit multiple reports at once is a desired functionality.
- Templates used for CEDRI annual NSPS reporting are not flexible, difficult to transfer data or delete data, often the drop downs are not consistent in the template (*e.g.*, "Yes, YES, yes"), verification of data in templates is time consuming.
- CEDRI latitudinal/longitudinal search doesn't take you to your site exactly. Being able to search by address to then set the latitudinal/longitudinal would be helpful.
- Share CEDRI data with states to avoid duplicate reporting:
 - If you could encourage states to utilize CEDRI, it would limit the number of places we have to submit the same report.
 - This platform does not communicate with state EPA offices. We have to submit it in CEDRI then we have to submit it to the state agency. It would be nice if the state agency could get it from CEDRI.
 - We want to reduce redundant reporting to the state and EPA. Data entry, particularly for stack test reports, is time consuming with different

templates/programs required for state and EPA. It would be good if compliance data submitted to EPA could automatically be sent to state regulators.

- Macros are disabled by many companies. Many CEDRI templates are macro-enabled which causes the auto-hide/un-hide functionality to be lost. Consider generating relevant templates (with proper data fields) within the Unified Platform that don't rely on macros for functionality.
- Facilities must submit data to multiple different EPA systems (e.g., SLT systems, CEDRI, TRI, e-GGRT, EIS, and CAERS if participating).
- CEDRI should be able to auto-populate certain fields from forms you have submitted in the past.
- I have had incidents where the report template for my submission is not in the system. I then have to pick the closest thing to my requirement and make comments.
- If another person at our facility submits a report within CEDRI, I cannot see it from my account even though our facility ID/certifier is the same. Regarding being able to see reports submitted by a different preparer, this is especially helpful when the previous preparer/submitter is no longer with the company. It would be desirable to be able to see reports in CEDRI created by coworkers at the same facility. Needed when I verify the report has been successfully submitted by the RO.
- When managing multiple facilities, it is difficult to find said facilities in the system.
- Also, there are multiple options (e.g., duplicates) for one facility making it difficult to know when one to choose. CEDRI sometimes has multiple listings for the same facility.
- The FRS query tool does not consistently help with this task. We often have to search for the entire zip code or municipality to return sites.
- We sometimes struggle to make sure we're selecting the correct facility. I'm not sure how, but it would be nice to simplify that process. Mapping is tricky.
- Report templates should be compiled somewhere accessible without having to log in to see if a report format/template has changed.
- Sometimes it is difficult to determine the correct answer to the report template "questions." Example, certification tab of YYYY: "There were no excess emissions or exceedances..." Does "yes" mean there were no exceedances? Or does "no" mean there were no exceedances? It might be more straightforward to have a True/False option to the statement.
- Updating and editing facilities are cumbersome. Multiple versions of the same facility exist, making maintenance difficult and it is unclear which to use.
- The verification email does not reference facility or file name which makes it difficult to get confirmation when submitting multiple reports.
- In CEDRI it is difficult to become a delegated certifier.
- Because the RO is typically a senior level employee, it would be helpful to have an administrator role that would have the same views as the RO to better guide the RO through the system, access all the sites (i.e., not just the ones they are the preparer for, etc.). Having the Responsible Official sign and then having to submit reports is not efficient. The RO shouldn't have to sign and upload.

- The different platforms/reporting tools are not so much an issue as it is to have to repeat facility data entry from one platform to another. If there could be an option to upload a CEDRI reported facility into TRI-MEweb or vice versa, that would be helpful.
- CEDRI does not allow users to select multiple facilities in a single submittal. The file contains multiple facilities, but the user needs to upload the same file for each facility to have the RO sign off.
- The report that is submitted in CEDRI is not printer friendly to be able to submit a copy to a local agency. I'd probably clarify that our state agencies, *i.e.*, TCEQ require us to copy them, not just necessarily the regional EPA office.
- It should be made more obvious in CEDRI when a facility is required to use a template (*e.g.*, "one year after it's been finalized..."). It would be nice to have a date posted and that be it.

CAERS

- When using CAERS, you cannot see stack test (performance tests/RATA) data submitted to CEDRI.
- In CAERS it would help to have a smoother transition between HAPs reporting years and non-Haps reporting years allowing history to remain over the 3-year gap.
- There is no easy print/review option to export monthly data for internal review in the format that it is presented in the webform.
- For units running only once per month (*i.e.*, emergency generator maintenance tests), the average time ran is often not useful information.
- There are times when semi-annual data is required to be submitted through CAERS, but this data does not carry over to annual reporting. If the 1H data was stored or carried over between semi-annual or annual reports, it would prevent holdups of having to enter a full year's worth of data.
- Sometimes users have to hand type info from spreadsheet into CAERS.
- Data Bulk Entry is a great idea but isn't helpful with how the Unit ID is listed without a unit description that is a useful name; it would also be helpful if the Unit Description was in each 'subunit' for the different fuel types.
- When you have a bunch of error codes it can be confusing figuring out how to correct them after you run a check.
- CAERS should recognize the SCC Code and request appropriate data and units. For example, all templates ask for Fuel Consumption. It should know that the SCC Code is a cooling tower, and that for cooling towers only certain data is needed (*e.g.*, recirculation flow, conductivity etc.), IT should know and reduce the options for the user to what is appropriate for a given emissions unit.
- I don't know how the operating details are used, but avg. per day or week is confusing/inaccurate for units that run intermittently.
- Two big asks: 1. We need to be able to "finalize" an annual report BEFORE it is certified by the RO. That way the states can review and ask questions/for modifications without having to re-certify after every round of review. 2. It would be wonderful if the RO could

certify via email. Once the report is accepted, CAERS could send an email to the RO on file, and they could certify by clicking a link.

- Slow error check after values are added.
- When submitting to EIS you experience the error messages that could be addressed during the first QA the facility does before submitting to the SLT.
- We have to rely on consultants for completing the data due to manual efforts of transferring data from company spreadsheets into the system.
- Add ability to PDF/print the draft report (not just print to Excel file) so that consultants can provide it to the client for review before they certify.
- CAERS has fixed emissions factors in the system but the ones that we need for our industry are not populated (mg/L is the one that I remember).
- I had trouble getting calculations to line up. We have an internal emission calculation system and the CAERS calculations didn't always agree, and even at very low levels of emissions, the system would generate an error if the reported emissions were different than what I reported. For HAP, emissions can be so small that the 20% difference doesn't result in a very different value but can generate a system error when rounding.

Facility Inventory

- My facility has one reporter for reports in one system, and another for other systems. We don't know if the other reporting is reporting the same thing we are.
- Search tools in FRS and CEDRI rarely return expected results.
- It is easy to mistakenly make new duplicate facilities because existing facilities are difficult to find.
- Each EPA system has a different version of the facility. They may have different addresses, lat/long coordinates, or different units. Making it hard to know which version is most accurate.
- Facility IDs are different in every system, making it hard to find the same facility in each system
- Having a threshold in which we do not have to report emissions would be great. The emissions can be quite low, but it has the same effort as higher emissions. EPA reply: we must follow what the regulations state are the reporting thresholds.
- Maine Department of Environmental Protection (MEDEP) does not allow the Facility Inventory to be edited by CAERS, information is updated with permit renewals, it is probably best that the user can't remove units or make other major errors.
- The facility data should include a list of all platforms it is associated with and the ID numbers like e-GGRT and CEDRI. Also, it should tie in with permit information where any permit modifications and updates will prompt updating of the facility information.

Miscellaneous

- FAQ or other guidance on how to remove access from former employees or when people change roles. An admin role or something that would make it easier to maintain facilities and people in the system in batch.

- Ability to send a certified and completed report directly to a state agency email address and receive confirmation it was sent.
- Mechanism to establish reporting deadlines/calendars for facilities to go in and see in one place when reports are due vs submitted.
- The Unified Platform should have information per state, so the reporters can find out which of these tools they must use. It is difficult to find guidance on this. How do we figure out what we need to use?

Appendix C: Regulatory

Appendix C includes the comprehensive list of priority pain points gathered during regulatory listening sessions with SLT agencies and EPA regional offices. These insights highlight key regulatory system challenges and will guide future Unified Platform Project requirements.

Regulatory - Primary List of SLT Pain Points by System

SPeCS for SIPs

- Plans that are not officially part of the SIP (e.g., 111d state plans) did not have an obvious "submission type" category when we made a submission. There should be all common options to make categorization easier.
- I'd love to see EPA post pre-recorded video tutorials that can be used by new users to walk them through the submission process.
- I would like the ability to view official SIP submittals that other states have submitted.
- Need 111(d) plan option, attainment designation recommendation letters options.
- Making sure that EPA gets notified that a state has submitted a new SIP. We have to send separate emails to our regional office to make sure they have received it.
- The categories in SPeCS tend to be restrictive and it is difficult to fit SIPs into those neat boxes.
- Naming of files and naming of submittals titles have character quirks that will cause an error when trying to submit.
- System allows for multiple accidental submissions of the same SIP. This mostly happens when the system is slow and the certifier clicks the submit button multiple times.
- Often do not receive auto-generated emails on successful submission or EPA staff do not receive notification via SPECS of submittal.
- As someone else noted - if it's an "other" that isn't a SIP submittal, remove the box that says we have all the legally required documents.
- And Regional Haze Progress Report
- Users would like to be able to see when EPA splits a SIP into multiple parts for different reviewers.
- It would be extremely helpful if by clicking on a state on the attainment map, you could access the applicable SIPs, designation requests, FR notices, etc. all linked together.
- We can't edit the people who have access to SPeCS. Some staff have left our department and are still listed as certified.
- Logging into SPeCS is confusing with an initial log in and then getting transferred to a different page.
- Curious about there being a different certifier status than the SIP section. I think there could just be 1 SPeCS certification.
- Official signing, then accidentally submit a package multiple times which causes confusion.
- Everyone in our group gets notified by email of a SIP submission, not just the ones involved (maybe this could be optional for those who do want to be informed of all submissions).

- Files have been overwritten because they have the same title. Files should be tied to the specific submittal and not to its name.
- Users would appreciate an email 2-step verification option. I have to use my personal phone to get the text update.
- Doesn't remove past employees as contributors (even when deactivated).
- SPeCS once "lost" an official SIP submission of ours, EPA nearly made us resubmit.
- SIPs often need to have Motor Vehicle Emission Simulator (MOVES) files associated with the SIP. These files exceed the file size limit. Need some method within SPeCS to submit these files.
- Internal mechanism to notify regional EPA that SLT has new SPECS user needing approval - often this contact is not updated or notified.
- Linking historical SIPs in SPECS to attainment maps, etc. on website.
- SPeCS for SIPs does not account for plans submitted prior to use of SPeCS aka backlogged SIPs (*i.e.*, pre-2018 for us).
- The turnaround time for receiving approval for certifier/preparer status is inconsistent, ranging from approval in a few hours to several days.
- We have had numerous accidental SIP creations because of the banner at the top that allows you to create a new SIP.
- SIP subcategories: pre-draft, pre-hearing, final, supplemental. Cover letters. NAAQS correspondence: SLT designation recommendation letters, supplemental info. 111(d)/129 SLT plans (also pre-draft, pre-hearing and final).
- Manual for basic functionality
- As a certifier, it is sometimes difficult to remember which button to select to complete the certification.
- System is sensitive to which system you are using & can only approve SIP submittals in Microsoft Edge or Firefox. Doesn't always work on Google platform.
- Doesn't always identify the error if the system doesn't accept. There are some characters the system doesn't like but no mention in the instructions. I think the "/" signal is one of them
- Accessing SPeCS was a little confusing through myCDX. Submission history appeared blank, but I forgot to click my "Role" title to get to the SPeCS landing page.
- SPECS doesn't always "catch" SIPs when they go into the backlog.
- SIPs in SPECS are not flagged with the regulatory program areas they implicate.
- Submittals have been lost due to unclear procedure for saving submissions.
- I use SPeCS for SIPs. It works well for our agency's needs.
- Not seeing recent submittals (*e.g.*, post 2021) for our state - Oklahoma- on S4S public dashboard. Latest final action was from 2023.
- We like the change to using login.gov as it makes signing SIPs and EE's a little faster and easier on the user.
- Users would love to know the names of the EPA staff who are reviewing.
- Please keep "other" as a submission type as a number of our SIPs do not fit in a normal category.

- A training video on navigating the SIP submission type field to guide new folks on navigating where numerous SIPs could fit for submission via SPeCS.
- The system is EXTREMELY picky on what characters you can include when adding titles to the documents uploaded. If you include a character the system does not like, it will not upload your documents. It does not give you any warning or tell you how to remedy the issue. I have figured out how to make the system work; however, a "How to" document that educates users on these quirks would be helpful.
- Doesn't let you see that system is processing a request and don't know if it is hung up or just taking a long time.
- Could you add a drop-down menu for regional office staff?
- Sometimes when I get an error message it is not detailed enough to determine the problem.

SPeCS for EE

- We need public-facing access. Public or other agencies cannot see EE demos submitted by others.
- CDX to login.gov transition was cumbersome.
- We have had submissions that have languished or not been submitted and have to send email backups to the regional office.
- The system kept wiping out certain fields between when you began preparing the submission and when you went back in to add more or formally submit. I believe "Event Types" was one of the fields that I had to enter each and every time I revisited my submission prior to official submittal.
- Submittal button commonly doesn't work at time of submittal, and we have to contact HQ's which usually takes at least a week for resolution
- The system also wiped the information entered by the preparer; the certifier logs in and has to re-enter all of the information.
- As previously stated, ability to upload video and media as evidence.
- Event type dropdown is limiting, we will often submit an exceptional event for an entire year so there might be multiple event types (e.g., rt, rf, and rj).
- When submitting a second round of exceptional events, if file names were the same, SPeCS only kept the previous version and not the new one that was uploaded with that submission. Submissions should not be combined and kept separate in the system regardless of file names.
- It would be very helpful if SPeCS could be a resource for SLT's instead of only a submission pathway. Have an area within SPeCS where users can view other agency submittals, and EPA approvals.
- SPeCS website interface feels like it is from the 1990s.
- Login process changing often and using external login sites took unnecessary time and effort.
- Identification of the EE events using BRATs model/GAMS/Statistical model for ozone non-attainment.

- Use of phone for MFA is not preferred because most people do not have GFE phones and have to use personal phones which is not ideal.
- Accommodating a large file. It is sometimes challenging to communicate with other state agencies and EPA due to large file size.
- The system did not work when our EE demonstration was submitted - even after much assistance from the EPA Region. Eventually it was emailed.
- Issues with submitting California exceptional events causing duplication of work and additional emails/follow-up with R09. Have had issues with missing counties. Agency staff being unable to sign off for submission due to SPeCS problems. Other unknown issues (e.g., stuck submissions) had to be fixed by SPeCS team forcing EEs to reach "submitted" state. Have submitted at least 6 ozone exceptional events to EPA and SPeCS failed to submit every one of them. I had to email regional EPA EE team with full submission every time.

Greenbook

- The Greenbook has a lot of options to choose from (e.g., NAA by classification, NAA state/county/area, NAA state/area/county, NAA state/county). It would be helpful to streamline this somehow.
- https://www3.epa.gov/airquality/greenbook/anayo_ky.html I am more likely to use this version of the Greenbook and really think the chart is easier to read.
- Greenbook - Shapefiles - It would be helpful if the download options were more granular (i.e., if I just want to download a shapefile of a specific NAA, it should be easy to do that). For example, we have two PM10 NAA that are very close together and it's hard to tell on the map what is part of the Phoenix Planning Area and what is part of the West Pinal NAA. <https://www3.epa.gov/airquality/greenbook/pfr2rpt2.html#PM-10.1990.Phoenix>
- If this pertains to NAA for Criteria Pollutants (Green Book), I use it and it works well for my needs.

Regulatory - Primary List of EPA Regional Pain Points by System

SPeCS for SIPs

- Elements are created per standard and per bump-up level. Right now, there is no place where this list of elements exists and no way for us to update them as a group. This has never worked in the existing system.
- Very long loading time.
- SPeCS is mainly used for SIP submittals under section 110, but it is also used by states to submit delegation requests under section 111, 112, and 129 of the CAA. States submit these requests under the "other" category, but it would be nice to have it specified in some way so the SPeCS lead in region knows what it is and who it should go to.
- If states are allowed to submit other things than SIPs in this clearinghouse, they should have the ability to tag them as non-SIPs (which would also eliminate the need to answer many of the certification questions).

- Sometimes the system doesn't properly categorize the "latest action." You can have final action information in place, but the system will still say it's backlogged.
- It would be beneficial to have submission files easily viewable in the internet window to avoid having to download each and every file
- There are times when elements retain "old information" and when you attempt to update it, the "old information" won't go away.
- The SIP issue tracker needs improvement. There should be a way (without needing to pull a report each time) to be able to summarize SIP issues at the regional level.
- CDX generated emails regarding user management are currently useless as they lack any pertinent information.
- Review pages created from an "Other" category submission are by default categorized as "Other – SIP" (you have to actively change it to non-SIP).
- Managing the status of individual elements in an area is very tedious because SPeCS does not consistently update element status changes when using the "element flow down" option.
- Submittals should have their own pages/IDs as well. Submittals can be associated with multiple review pages if they're acted on in parts. It would be good to be able to track if a submittal has been acted on completely, among other uses.
- It would be good for it to automatically combine all files submitted into one single larger file so to not have to download each individual file submitted.
- Area pages need HQ user roles/contractor support to update if there is a change in classification/incorrect missing information. Elements are sometimes missing even with the change in classification. Regions are unable to add/change them.
- Latest updates to elements through review pages are often not reflected in order in the associated area pages. Additionally problematic as the public facing dashboard sources info from the area page.
- Transmission of data from SPeCS to Qlik has never worked properly.
- Glitches/errors in SPeCS cannot be fixed without contractor or HQ support; could be helpful with more regional permissions. Example: review pages not showing the correct status. This feeds into reports/data pulled by HQ that feeds into BFS.

SPeCS for Exceptional Events

- For state submittals with multiple monitors/dates, SPeCS does not let agencies submit multiple specific dates/monitors but rather forces them to select a range of dates. Multiple event types may exist in one submittal as well.
- It would be helpful if an event can be created in SPeCS then documents associated with that event can be uploaded by the agency AND the EPA. As an example of documents, INIs, draft demos, EPA's review of draft demos with comments, final demos, cover letters, EPA's concurrence/ nonconcurrence/deferral, etc.
- If a state submits a final demo via email, there is no way for EPA to upload the files into SPeCS for tracking purposes.
- Limited ability for regions to submit or edit state submissions.

- Confusing user roles and privileges at the regional level. Need backup role that has same abilities as the lead.
- The filters do not work well so it is hard to search for a specific demonstration in the regional database. Often times I am not able to apply multiple filters without whole database resetting. For example, "r9 demos and 2015 O3 NAAQS."
- SPeCS IDs could be more descriptive instead of numerical values. Clearinghouse - can be hard to find documents due to this.
- If a state submits a demo for multiple NAAQS, such as 2008 O3 and 2015 O3, only one NAAQS is allowed to be tagged also making it hard to search.
- EE system should capture the entire EE process so concurrences, etc. can be tracked.
- If we can link data to events to submissions and resulting concurrences in this system, it would make the process much more streamlined.
- Make sure the system complies with all record schedule requirements so we don't need to download documents to a separate approved location.
- Doesn't seem adaptable enough to capture ad hoc queries, resulting in the need for multiple systems and spreadsheets.
- SLTs often do not link data with a request exclusion flag to an exceptional event in AQS. Please make sure this required step is made clearer.
- Files should be editable online (e.g., SharePoint) so there isn't a need to download them as a local copy. We run into issues with needing the same file in multiple locations and systems.
- The "Add/Edit Review Page Action History" should be properties tied to files rather than a separate field/entry point. For example, if a state submits a demonstration, the region should be able to mark that file as "Under Review," or "partially concurred," etc.

Greenbook

- Greenbook GIS boundary and population data are outdated and do not match GIS data on EPA's GeoPlatform.
- Please update the Metropolitan Statistical Area (MSA) boundaries and population data for the Unified Platform. MSA definitions in AQS are outdated by 10 years and cause issues with EPA staff analyzing minimum monitoring requirements.
- It could be useful to integrate the most current MSA information of the maintenance and NAAs into the platform. This information is difficult to locate elsewhere and has important air monitoring implications.