

Combined Air Emissions Reporting System
(CAERS) Version 5
User's Guide Version 6.0
Last updated: 01/06/2025

About CAERS and the Paperwork Reduction Act

CAERS supports both emissions data collection from owners/operators of facilities to state, local, and tribal (SLT) agencies as well as collection from SLT agencies to the EPA. Data collection by a SLT from owner/operators is subject to the regulations of the SLT agency. Historically, these data collections have been done by SLTs prior to EPA's creation of the Air Emissions Reporting Rule (AERR; 40 CFR Part 51, Subpart A). The AERR built on the Consolidated Emissions Reporting Requirements (CERR), which was created to consolidate several emissions reporting requirements for SLTs to the EPA.

Given this history, the burden included with the Information Collection Request for the AERR covers the burden for SLTs to report to the EPA. The burden statement below covers that part of the emission data collection process.

Burden Statement

This collection of information is approved by OMB under the Paperwork Reduction Act, 44 U.S.C. 3501 et seq. (OMB Control No. 2060-0580). Responses to this collection of information are mandatory (40 CFR § 51.15) and include voluntary aspects for reporting (40 CFR § 51.15 paragraphs (a)(2)-(4)). A federal agency may not conduct or sponsor, and a person is not required to respond to, a collection of information unless it displays a currently valid OMB control number. The public reporting and recordkeeping burden for this collection of the point source portion of the AERR information is estimated to range from 50 -190 hours per response. Send comments on the Agency's need for this information, the accuracy of the provided burden estimates and any suggested methods for minimizing respondent burden to the Regulatory Support Division Director, U.S. Environmental Protection Agency (2821T), 1200 Pennsylvania Ave., NW, Washington, D.C. 20460. Include the OMB control number in any correspondence. Do not send the completed form to this address.

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1 Introduction

1.1 Introduction to CAERS

The Combined Air Emissions Reporting System (CAERS) is an application that allows industry from subscribed State, Local, or Tribal authorities (or SLTs) to report their air emissions, so that you can:

- meet specific SLT air emissions reporting requirements given individual SLT regulations,
- report annual or triennial emissions to meet the requirements of the U.S. EPA's Air Emissions Reporting Rule (AERR), as per the Code of Federal Regulations (or CFR) 40, Part 51, and
- optionally, get a head start on reporting your facility's toxics air emissions to the U.S. EPA's Toxics Release Inventory (TRI), as per 40 CFR Part 372.

You should consult with your SLT to determine if you meet the criteria for annual reporting.

1.2 Highlights of CAERS Features

The following basic features will help users navigate CAERS. By familiarizing yourself with these features, you will have a smoother and less time-consuming reporting experience. You should also consult the Checklist (Appendix D) at the end of this user guide to assist you in your submission.

1. Previously reported data are prepopulated in a current inventory year report, as a starting point.
2. All pages appear and function in a consistent predictable way.
3. All required fields are marked with an "*" symbol, and a "?" symbol next to data fields provides a pop-up box with its definition and examples.
4. Three options for data entry are available:
 - a. **User interface** – for users with few changes to a previous year report, and with different kinds of changes.
 - b. **Bulk entry** – for users with a few changes to their annual throughput and emissions, and with few to no changes to their facility inventory.
 - c. **Bulk upload** – for users with many changes and/or with a variety of types of changes from a previous year report, this includes new and/or large facilities with no previous reporting history who will want to start a brand-new report.
 - i. **Via excel template** – for users who would like to work with excel, and/or convert their excel file to JSON for upload.
 - ii. **Via JSON upload** – for users who would like to send data directly from their custom systems.
5. Attachments can be included: Your SLT may require you to provide supplemental information to your estimates such as detailed calculations in a spreadsheet or word document.
6. Bulk download of data into the excel template you will need for bulk upload. This will allow you to make the relevant changes directly to the template.
7. Summary reports can be downloaded: You can obtain a summary of your submission in an excel file (different from the bulk download described above).
8. Toxics air pollutants and hazardous air pollutants (HAPs) reported to CAERS can be shared with Toxics Release Inventory (TRI) to save users time: When using the calculation features and/or uploading calculations for toxics emissions in CAERS, CAERS will aggregate toxics emissions for the facility, and leave that data ready for TRI-MEweb to pick up so it can be used for that facility's air emissions reporting.

9. A “Report History” page shows major activities from reporters and certifiers such as attachments, certification, and submission of the report are recorded.
10. A “Report Log” page alerts users to any changes made to uploaded data, such as updates in EPA emission factors.

1.3 Software Requirements for CAERS

To use the CAER system, you will need:

- Internet browser and connectivity: This should be a recent version of any internet browser such as Chrome, Explorer, Edge, or Firefox. Your internet connectivity will determine how fast data can be uploaded, as will the amount of data you are uploading at one time.
- Microsoft Excel: Bulk uploads will be in “XLSX” format, and Excel 2013 or later is required.

1.4 How to Use this Guide

This user guide is intended to guide users as they create and update their annual reports. Additionally, trainings on the [CAERS website](#) may be used to supplement the information provided in this guide. The guide is laid out in a specific order. It is recommended that users, especially those new to CAERS, follow the same order when creating their report. This user guide may be updated. Please check the CAERS website for updates.

2 Initial Pre-Reporting Steps

2.1 Determine Your Role as Preparer or Certifier

Your first step will be to determine if you are a preparer or certifier as follows:

You are a **Preparer** if you are authorized to prepare an emissions report for National Emissions Inventory (NEI). You may be a consultant, or a staff person for the company owning the facility, for example. Note that:

- There may be more than one Preparer for a facility and that facility is associated with each Preparer’s account. There may not be a single account for multiple preparers.
- There may be a single Preparer for more than one facility, and all those facilities are associated with that Preparer’s account.
- A Preparer cannot sign and submit the report like a Certifier can.

You are an **NEI Certifier** if you are authorized to sign the emissions report on behalf of the facility to meet your legal obligation for reporting to your State, Local, or Tribal authority (SLT). Note that:

- The Certifier can do everything a Preparer does in the System. Therefore, a Certifier who is also the Preparer for a facility only needs to register as NEI Certifier for that facility and does not require an additional Preparer account.
- There may be only *one* Certifier for a facility. Only one individual can sign the report for that facility. You should consult your SLT to determine who from the facility should be the certifier.
- There may be a single Certifier for more than one facility (multiple facilities associated with the certifier account). However, your SLT may have additional limitations to those the system allows, so you should check with your SLT for specific instructions.

If your facility does not submit toxics air emissions data to TRI-MEweb, you may skip to Section 3.

- If your facility also submits air toxics data to TRI-MEweb, and your facility will use shared toxics data reported to CAERS in the TRI reporting (as per sections 2.2 and 2.3), you should note the following: TRI data is certified in TRI-MEweb, not CAERS. However, when the NEI Certifier certifies their annual report in CAERS, they will also be signaling to CAERS that reporting is complete and that shared data is ready to be made available to TRI-MEweb. So long as a report is still in progress, CAERS will not make the data available for TRI-MEweb to pick up. Furthermore, TRI bound data will be certified in TRI-MEweb, not CAERS. The NEI Certifier may not be the same person as the TRI certifier so facility NEI and TRI certifiers may want to coordinate amongst themselves to ensure they are reporting data to CAERS and TRI-MEweb consistently. Please direct any questions about this to: caer@epa.gov.

2.2 Option for Reporting TRI-bound Air Toxics Data

CAERS has an optional feature that allows you to get a jump start on air toxics emissions reporting for your facility. You can enter air toxics/HAP data in CAERS in conjunction with your NEI reporting. When you are finished, CAERS will then add toxics data up to your facility total and leave the data available for TRI-MEweb to pick up and prepopulate your air toxics report.

Regulations do not require your report to be reviewed by your SLT for your toxics data to be made available for TRI reporting. Additionally, your SLT may not require you to report your facility's air toxics/HAP emissions through CAERS. However, we encourage facilities to submit HAPS data at the process level in CAERS for the following reasons:

- You'll be able to enter the data and take advantage of the CAERS aggregating air toxics data to the facility total.
- Having your SLT review your criteria pollutant data *before* your data go to TRI-MEweb gives you the opportunity to correct any related toxics data. For example, assume your SLT finds an error with throughput for a unit/process affecting your facility's CO and NOX emissions, that is also affecting your VOC calculations. As you correct that throughput, all affected emissions are corrected as well.
- If no HAPS are reported for the facility, then EPA estimates these emissions from your criteria emissions data via HAP augmentation calculations. These estimates may not be as accurate as your own data. By submitting your own HAPs emissions at the process level in CAERS you take charge of your data.
- You should consult your SLT to determine if you are required to submit HAPS data to comply with SLT requirements.

2.3 Timing of Your NEI and TRI Submissions

CAERS will add up all shared toxics/HAP emissions entered and calculated at the unit/process-level and make those totals available to you in TRI-MEweb (see Section 10). The goal is for reporters to save time in doing calculations separately for each program when common or shared input data (for example, throughput, emissions) entered for one program can be used for reporting to another program, in this case TRI reporting. Therefore, a reporter should create the CAERS emissions report leaving time for the submission to take place before the SLT submission deadline, as well as the TRI deadline of July 1st. TRI data submissions do not require review by your SLT authority and are picked up by TRI-MEweb by the submission deadline. A submission that, upon SLT review, requires edits after that date, will be updated accordingly for submission to NEI. However, any toxics data affected by such edits

will be updated in TRI-MEweb later, and may not be consistent with data submitted via CAERS. Furthermore, you will also want to account for your SLT's submission deadline. For example, GADNR EI deadline is June 30th of each year.

Finally, it is important to leave time in case issues come up that require intervention by the help desk, SLT, or EPA staff to resolve. Were we to find any glitches in the software, those will take time to resolve as well. Therefore, we recommend that you:

- Register as Preparer or Certifier as soon as you know your reporting role.
 - If you are already registered as Preparer/Certifier for a facility from last year's submission, you do not need to re-register, but you should follow any additional steps your SLT may require.
 - If staff changes:
 - For new GADNR preparers and certifiers: go to GEEO to register first, then proceed to CDX to register only after you have gone through the steps in GEEO.
 - For new non-GDNR SLT preparers and certifiers: please notify your SLT immediately with the name, email address, mailing address and phone number of the new staff person. Then, new staff should register in CDX immediately to start and/or continue the report. You should consult with your SLT, as they may have additional SLT specific verification steps to complete the process as well.
 - For preparers and certifiers that will no longer be working on a facility's reports, please let your SLT know as soon as possible so your link to the facility can be removed promptly. You should consult with your SLT, as they may have additional SLT specific steps for you to complete.
- Coordinate your NEI and TRI reporters so that you start your report no later than one month before the first program deadline you are facing.
- Complete your report no later than two weeks before your submission deadline, to allow for unforeseen circumstances that might delay your emissions report.

For example, given that GADNR's submission deadline is June 30th, it is best for the facility to submit its emissions inventory through CAERS at least two weeks before that deadline to allow GADNR Reviewer's advanced QA reviewing process.

Once your SLT has reviewed your report, it will then send that report to EPA in two steps (first facility information, second throughput and emissions data). While every effort has been made to provide preparers with quality assurance checks that will help you submit the highest quality data, both your SLT staff and EPA's Emissions Inventory System (EIS) may present additional checks (either new, or checks that are not possible to include in CAERS given their nature). These checks may require you to make corrections to your report after you have certified it. In that case your SLT will return your report for revisions. These revisions usually take place in the Fall. To avoid some of these issues, we encourage you to review the "Additional Considerations" sections after each section and chapter.

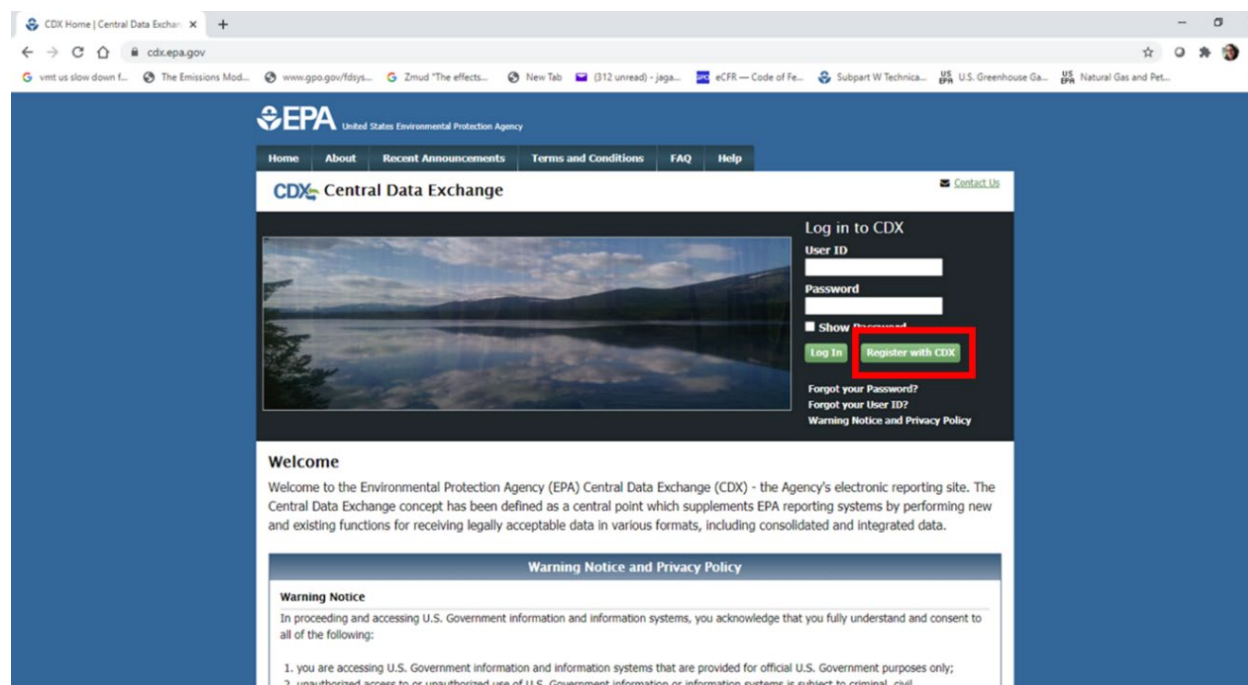
3 Registration

Each SLT has its own process for establishing and tracking who from each facility will be the NEI Certifier. If you have not heard from your SLT about this already, or if you are new and missed the relevant communication from them, you should reach out to them directly. To avoid further unnecessary delays, please do not try to register in CDX as NEI Certifier until you have communicated with your SLT.

3.1 Registration in CDX

To enter CAERS, you will need to be registered in [EPA's Central Data Exchange \(CDX\)](#). If you already have a CDX account but have not registered to use CAERS, go to section 3.2. If you are new to CDX, click on the "Register with CDX" button (Figure 3-1). You will be directed to the Terms and Conditions screen for CDX registration (Figure 3-2). After reading these, check the box confirming that you are the registrant and click "Proceed" at the bottom left of your screen.

Figure 3-1. CDX Login Screen



The screenshot shows the EPA Central Data Exchange (CDX) login screen. The page has a blue header with the EPA logo and navigation links: Home, About, Recent Announcements, Terms and Conditions, FAQ, and Help. Below the header, the CDX logo and name are displayed. A large image of a lake is on the left. On the right, there is a 'Log in to CDX' section with fields for 'User ID' and 'Password', and buttons for 'Log In' and 'Register with CDX'. The 'Register with CDX' button is highlighted with a red rectangle. Below the login section, there is a 'Welcome' message and a 'Warning Notice and Privacy Policy' section.

Welcome

Welcome to the Environmental Protection Agency (EPA) Central Data Exchange (CDX) - the Agency's electronic reporting site. The Central Data Exchange concept has been defined as a central point which supplements EPA reporting systems by performing new and existing functions for receiving legally acceptable data in various formats, including consolidated and integrated data.

Warning Notice and Privacy Policy

Warning Notice

In proceeding and accessing U.S. Government information and information systems, you acknowledge that you fully understand and consent to all of the following:

1. you are accessing U.S. Government information and information systems that are provided for official U.S. Government purposes only;
2. unauthorized access to or unauthorized use of U.S. Government information or information systems is subject to criminal, civil,

Figure 3-2. CDX Terms and Conditions

EPA United States Environmental Protection Agency

Home About Recent Announcements **Terms and Conditions** FAQ Help Virtual Assistant

CDX Terms and Conditions [Contact Us](#)

The access and use of CDX Registration for the electronic submittal of environmental information require the creation of a user ID and password that I must maintain and keep confidential. I will review the following steps concerning the creation and maintenance of a user ID and password.

Warning Notice

In proceeding and accessing U.S. Government information and information systems, you acknowledge that you fully understand and consent to all of the following:

1. you are accessing U.S. Government information and information systems that are provided for official U.S. Government purposes only;
2. unauthorized access to or unauthorized use of U.S. Government information or information systems is subject to criminal, civil, administrative, or other lawful action;

☒ I am this registrant. I will not share my account, and I accept the terms and conditions, above.

Proceed [Cancel](#)

3.2 Add CAERS to your CDX Account

If you are both an authorized Certifier and Preparer, you *do not need* to go through this process twice. Instead, just register as Certifier in CAERS once you are in. Once you have accepted terms and conditions, you will be taken to the Program Services page. You can search “CAER: Combined Air Emissions Reporting” from the list, or you can type it in the search list as shown in Figure 3-3.

Figure 3-3. CDX Program Service Page

The screenshot shows the EPA CDX 'Edit Account Profile' page. At the top, there's a navigation bar with links: Home, About, Recent Announcements, Terms and Conditions, FAQ, Help, and Virtual Assistant. Below this, the page title is 'CDX Edit Account Profile' with a 'Contact Us' link and 'Logged in as JSMITH (Log out)'. The progress bar indicates '1. Program Service' is the current step, followed by '2. Role Access' and '3. Organization Information'. A text prompt says: 'Begin typing a program service name or related keywords to filter the list of available services (e.g., air quality system, AQS, or Clean Air Act)'. Below this is a search box labeled 'Enter search criteria'. A list of 'Active Program Services' follows, including: ARCS: Aircraft Reporting and Compliance System, BASD: Benthic Assessment System, **CAER: Combined Air Emissions Reporting** (circled in red), CDRS: Consent Decree Reporting System, CEDRI: Compliance and Emissions Data Reporting Interface, CSPP: Submissions for Chemical Safety and Pesticide Programs, and eDisclosure: Voluntary Disclosure System.

Figure 3-4. Role Selection Screen

The screenshot shows the EPA CDX 'Edit Account Profile' page at the '2. Role Access' step. The progress bar shows '1. Program Service' as completed and '2. Role Access' as the current step. The 'Registration Information' section shows 'Program Service' as 'Combined Air Emissions Reporting' and 'Role' as 'Not selected'. Below this, a text prompt says: 'Select a role from the drop down list and provide any required additional information, if applicable.' A 'Select Role' dropdown menu is open, showing 'NEI Certifier' and 'Preparer' options, with 'NEI Certifier' highlighted by a red circle. A 'Request Role Access' button is visible. At the bottom, there's a footer with EPA Home, Privacy and Security Notice, Accessibility, CDX Help Desk: 888-890-1995 | (970) 494-5500 for International callers, About CDX, Frequently Asked Questions, Terms and Conditions, and Contact Us. The EPA logo is also present.

You will be taken to the role access screen where you can choose your role as Preparer or NEI Certifier (Figure 3-4). Remember that if you are *both* Preparer and NEI Certifier, you *only need to register as NEI Certifier*. You will only need one NEI Certifier account if you will both prepare and certify the report.

After selecting your role click on “Request Role Access” the next screen will ask for a User ID and email address (Figure 3-5). You will now be re-directed to register in Login.gov (Figure 3-6). If you already have a Login.gov account, or if you have not used CDX since the migration to Login.gov (Summer of 2024), you will login to CDX as normal and then follow the prompts that will help you relate your CDX account to your Login.gov account. Otherwise, continue with your registration in Login.gov.

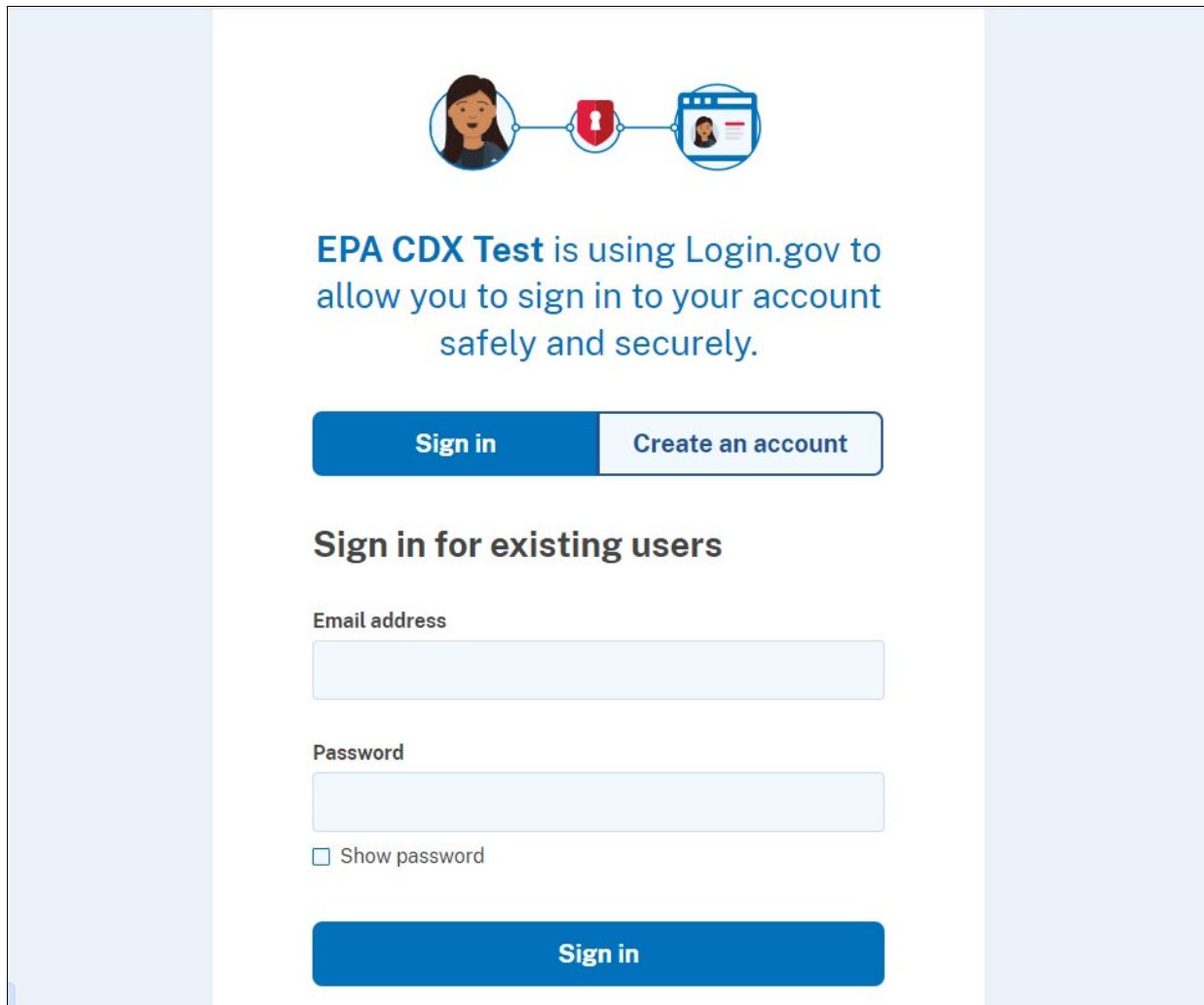
Figure 3-5. User Information

The screenshot shows the EPA CDX Core CDX Registration page. At the top is the EPA logo and the text "United States Environmental Protection Agency". Below this is a navigation bar with links: Home, About, Recent Announcements, Terms and Conditions, FAQ, and Help. The main heading is "CDX Core CDX Registration" with a "Contact Us" link. A progress bar shows four steps: 1. Program Service (checked), 2. Role Access (checked), 3. Identity Credentials (active), and 4. User and Organization. Below the progress bar, it says "Please fill out all required fields marked with an asterisk(*)". The form is titled "Part 1: User Information" and contains two fields: "User Id *" and "Email Address: *". The "Email Address" field has the placeholder text "example@example.com". At the bottom of the form are two buttons: "Continue Registration" and "Cancel". The footer contains the EPA Home, Privacy and Security Notice, and Accessibility links, along with the CDX Help Desk contact information: 888-890-1995 | (970) 494-5500 for international callers. There are also links for About CDX, Frequently Asked Questions, Terms and Conditions, and Contact Us, and the EPA seal.

Figure 3-6. Re-redirect to Login.gov

The screenshot shows the EPA CDX Central Data Exchange page. At the top is the EPA logo and the text "United States Environmental Protection Agency". Below this is a navigation bar with links: Home, About, Recent Announcements, Terms and Conditions, FAQ, and Help. The main heading is "CDX Central Data Exchange" with a "Contact Us" link. Below the heading is the text "Leaving CDX" and a message: "You are being redirected to Login.gov to either set up or login to an existing account. Once you've logged in successfully, you will return to CDX to continue your registration process." Below the message is a button labeled "Proceed to Login.gov". The footer contains the EPA Home, Privacy and Security Notice, and Accessibility links, along with the CDX Help Desk contact information: 888-890-1995 | (970) 494-5500 for international callers. There are also links for About CDX, Frequently Asked Questions, Terms and Conditions, and Contact Us, and the EPA seal.

Figure 3-7. Login.gov Screen



The image shows a login screen for the EPA CDX Test. At the top, there is a graphic with three icons: a person's head, a red shield with a white keyhole, and a computer monitor displaying a person's profile. Below this graphic, the text reads: "EPA CDX Test is using Login.gov to allow you to sign in to your account safely and securely." There are two buttons: a blue "Sign in" button and a white "Create an account" button with a blue border. Below these buttons, the text "Sign in for existing users" is displayed. Underneath, there are two input fields: "Email address" and "Password". Below the password field is a checkbox labeled "Show password". At the bottom, there is a large blue "Sign in" button.

EPA CDX Test is using Login.gov to allow you to sign in to your account safely and securely.

Sign in **Create an account**

Sign in for existing users

Email address

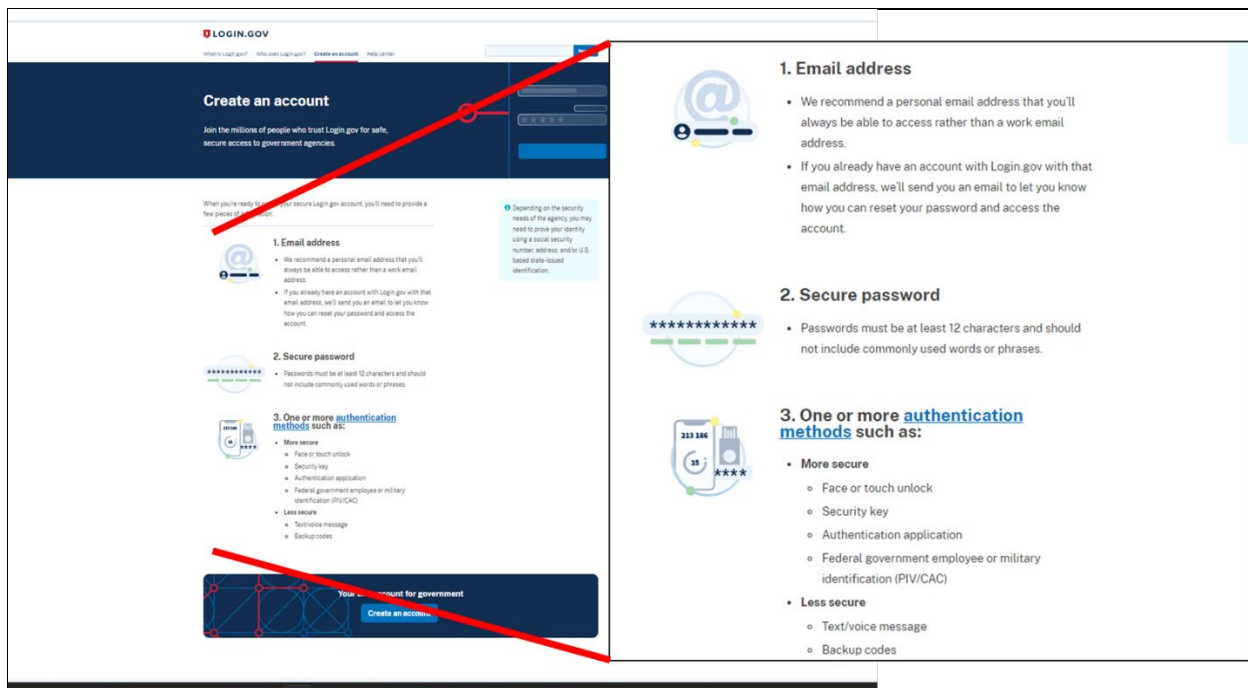
Password

☐ Show password

Sign in

Upon being re-directed to the Login.gov main page (Figure 3-7), click on "Create an account" which will take you to a page listing what you'll need to have available to create a login.gov account (Figure 3-8).

Figure 3-8. Login.gov User Requirements List



The image shows a screenshot of the Login.gov 'Create an account' page. A red overlay, consisting of a diagonal line and a circular highlight, is placed over the top portion of the page. To the right of the screenshot, a detailed list of user requirements is provided, organized into three numbered sections with corresponding icons.

1. Email address

- We recommend a personal email address that you'll always be able to access rather than a work email address.
- If you already have an account with Login.gov with that email address, we'll send you an email to let you know how you can reset your password and access the account.

2. Secure password


- Passwords must be at least 12 characters and should not include commonly used words or phrases.

3. One or more authentication methods such as:

- **More secure**
 - Face or touch unlock
 - Security key
 - Authentication application
 - Federal government employee or military identification (PIV/CAC)
- **Less secure**
 - Text/voice message
 - Backup codes

If you have questions about Login.gov registration, the [CDX FAQ page](#) provides resources to help you. Click on the FAQ or Frequently Asked Questions tab at the top right of any CDX page next to the Help tab, then click on CDX (Figure 3-9) to open the dropdown menu and select a subject. Each of the links will take you to information and/or a video tutorial for assistance.

Figure 3-9. Help with Login.gov from the CDX Page



Log in to CDX

User ID

Next

Forgot your User ID?
Warning Notice and Privacy Policy

Register with CDX

Frequently Asked Questions

~ CDX

- › Can I change My CDX User ID?
- › How do I change the Prefix or Suffix on my name within my CDX account?
- › How do I change the name on my CDX account?
- › I am having issues answering my Security or Challenge questions during the submission process
- › I have completed the process for a CDX password reset however, I have not received it
- › Common Acronyms
- › How do I migrate my account to login.gov?
- › How do I login with my login.gov account?

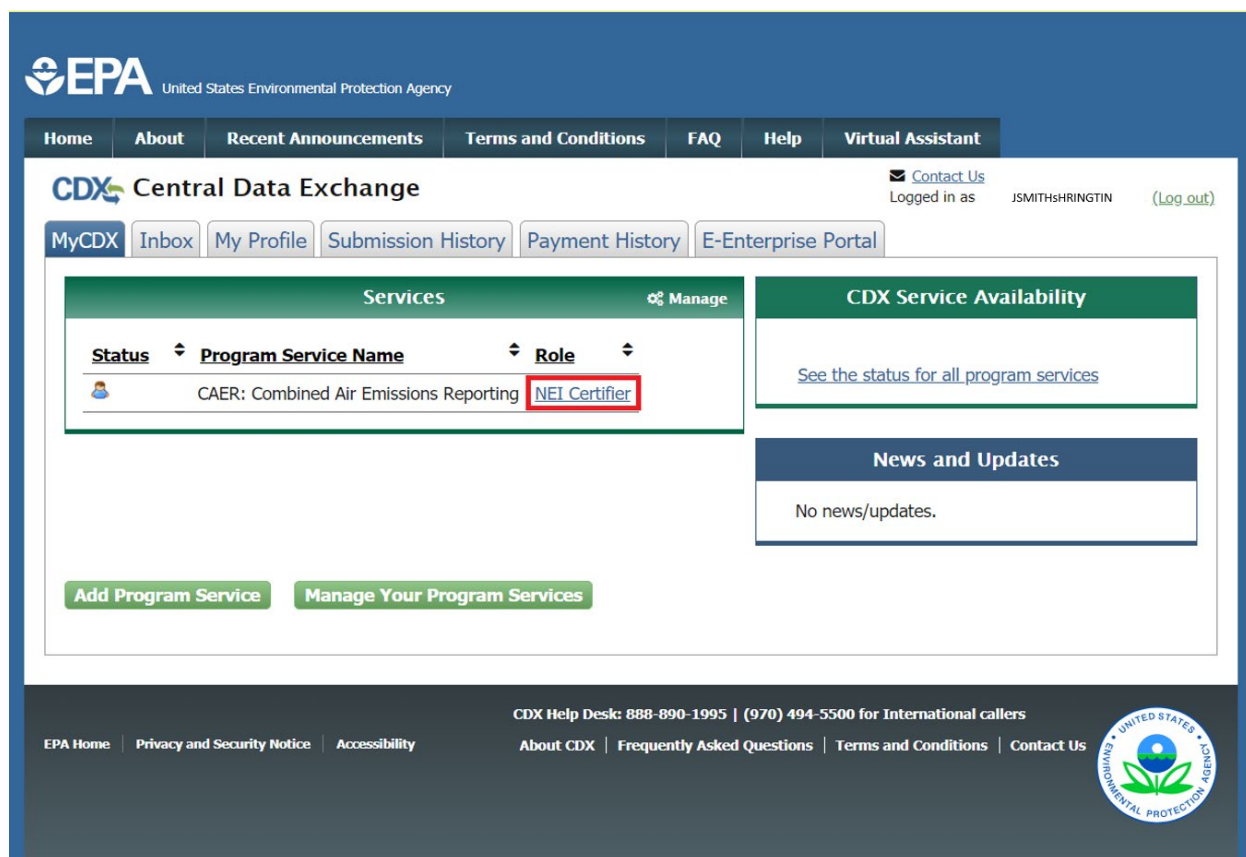
~ **How do I create a Login.gov account?**

Please visit the [Login.gov website](#) on how to create an account with them.

~ **How should I configure my Login.gov Multifactor Authentication (MFA) methods?**

It is strongly recommended to set two or more authentication methods to your Login.gov account. If you lose access to your primary authentication method (e.g., lose your phone), you'll need an alternative authentication method to sign into your account.

Figure 3-10. MyCDX Page



Once you have registered, when you enter CDX and select CAERS, if you are a certifier, then the 'NEI Certifier' link in the 'Role' column on the "MyCDX" screen will be active and clickable. If you are a preparer, then "Preparer" will appear under your Role (Figure 3-10).

3.3 Gain Access to CAERS and your Facility

Once you click on your role, you will be re-directed to enter CAERS, and you will see "My Facilities" (Figure 3-11). Click on the "Request Access to a New Facility" button to request that your SLT verify that you are associated with the correct facility.

The next screen will allow you to search for your facility by entering your SLT agency and Agency Facility ID. If you do not know your facility ID, you may enter more search criteria (such as part of the facility name) to find your facility. Once you've entered it, click "Search" to find your facility (Figure 3-12).

A list of facilities matching your search criteria will appear. Be sure to only select the facility you are reporting and/or certifying for. Once you have selected it, click "Request Access" (Figure 3-13). You will be asked to confirm you have selected the correct facility. Click "Confirm" or click "Cancel" to go back to the previous screen. You will receive an email from your SLT confirming or rejecting your request for access to the facility you selected. When your request has been accepted, upon reentry to CAERS, you should see your facility, listed in your "My Facilities" page (Figure 3-14).

Figure 3-11. “My Facilities” Page in CAERS

My Facilities

[CBI Disclaimer](#) [CAERS Help](#) [Contact CDX](#)

My Facilities

Request Access to a New Facility

My Notifications

EPA Home | MyCDX | Accessibility Notice | Privacy and Security Notice

Figure 3-12. Facility Search in CAERS

My Facilities > Facility Search

[CBI Disclaimer](#) [CAERS Help](#) [Contact CDX](#)

Request Access to Facility

Agency: Georgia Department of Natu

City:

Name: Facility

State:

Postal Code:

Agency Facility ID:

Search Reset Back to My Facilities

EPA Home | MyCDX | Accessibility Notice | Privacy and Security Notice

Figure 3-13. Request Access to Selected Facility

[MyFacilities](#) > [Facility Search](#)

[CBI Disclaimer](#)
[CAERS Help](#)
[Contact CDX](#)

Request Access to Facility

Agency:
City:

Name:
State:
Postal Code:

Agency Facility ID:

Filter Table:
Filter Request Status:

Facility Name	Agency Facility ID	Address
My Facility Inc.	999999	123 MyFacility Road, Washington, DC 99999

[EPA Home](#) | [MyCDX](#) | [Accessibility Notice](#) | [Privacy and Security Notice](#)

Figure 3-14. "My Facilities" Page Listing Facilities

[My Facilities](#)

[CBI Disclaimer](#)
[CAERS Help](#)
[Contact CDX](#)

My Facilities

Agency ID: 999999
My Facility Inc.
123 MyFacility Road
Washington, DC 99999
Agency: DOEE

My Notifications

DOEE Announcement:

Any announcements for preparers and certifiers for DC appear here.

[EPA Home](#) | [MyCDX](#) | [Accessibility Notice](#) | [Privacy and Security Notice](#)

3.4 Opt in-Process for Facilities Reporting to GADNR

This section applies only to all Georgia Department of Natural Resources (GADNR) facility preparers and certifiers. If you do not report to GADNR, you may proceed to Section 4.

After logging in and having received access to your facility from GADNR, you will be redirected to the Emissions Reports page. Now, you will begin your opt-in/opt-out process. Click on “Create New Report”, you will be generating a report no matter whether you opt in or opt out, but the process for each will be different (Figure 3-15).

Figure 3-15. Starting the GADNR Opt-in/Opt-out Process

The screenshot shows the 'Emissions Reports' page within the 'MyFacilities' system. The top navigation bar includes 'MyFacilities > Emissions Reports' and links for 'CBI Disclaimer', 'CAERS Help', and 'Contact CDX'. On the left, a sidebar displays facility information: 'Agency ID: 99999999', 'Facility Inc.', '123 Main Street', 'Mytown, GA 12345', and 'Agency: GADNR'. The main content area, titled 'Emissions Reports', contains a table with three rows: '2023 Report', '2022 Report', and '2021 Report'. To the right of the '2023 Report' row is a 'Create New Report' button. To the right of the '2022 Report' and '2021 Report' rows are 'View' buttons. The footer of the page includes links for 'EPA Home', 'MyCDX', 'Accessibility Notice', and 'Privacy and Security Notice'.

Via a pop-up window (Figure 3-16), the system will ask about the status of your facility. Only select “Permanently” or “Temporarily” Shutdown if the facility *had no activity* in the inventory year you are reporting. For annual reports, “shutdown”, either temporarily or permanently means that the facility *did not* operate from January 1st to Dec. 31st of the inventory year. Otherwise, your facility was “Operating”. If the facility operated at all, even one day, in that inventory year, then the facility is considered to have been operating for that inventory year. If you have further questions, please reach out to your SLT *before* you select an operating status to avoid having to go through the process again.

3.4.1 If the Facility was Operating

Your selection will take you to another pop-up window asking if the facility met the Potential to Emit (PTE) thresholds listed for the inventory year you are reporting (Figure 3-17).

Figure 3-16. Selecting Operating Status for GADNR Facilities

Emission Reporting Opt-In
×

The questions below will help you determine your level of participation in the 2023 Emissions Inventory Year reporting.

Was this facility operating in 2023?

☐ Yes. The facility was **operating** during some or all of 2023.
☐ No. The facility did not operate at all during 2023, but is operating now or will operate again in the future, and is thus **temporarily shutdown**.
☐ No. The facility did not operate at all during 2023, will not operate again, and is thus **permanently shutdown**.

Note: If the facility has never operated and is currently in construction, you do not need to submit an EI. If you have received an EI email notification, please contact emissions.inventory@dnr.ga.gov to be removed from the 2023 EI email list. You should also delete the facility from your "My Facilities" page.

Cancel
Proceed

Figure 3-17. Potential to Emit Threshold Questionnaire for GADNR Facilities

Emission Reporting Opt-In
×

The questions below will help you determine your level of participation in the 2023 Emissions Inventory Year reporting.

Was this facility operating in 2023?

☒ Yes. The facility was **operating** during some or all of 2023.
☐ No. The facility did not operate at all during 2023, but is operating now or will operate again in the future, and is thus **temporarily shutdown**.
☐ No. The facility did not operate at all during 2023, will not operate again, and is thus **permanently shutdown**.

Note: If the facility has never operated and is currently in construction, you do not need to submit an EI. If you have received an EI email notification, please contact emissions.inventory@dnr.ga.gov to be removed from the 2023 EI email list. You should also delete the facility from your "My Facilities" page.

Facility Emissions Thresholds

Pollutant	Triennial Threshold (in Tons per Year)
Sulfur Dioxide (SO ₂)	Potential to emit ≥ 100
Volatile Organic Compounds (VOC)	Potential to emit ≥ 100
Nitrogen Oxides (NO _x)	Potential to emit ≥ 100
Carbon Monoxide (CO)	Potential to emit ≥ 1000
Primary PM _{2.5} . As applicable, also report filterable and condensable components.	Potential to emit ≥ 100
Primary PM ₁₀ . As applicable, also report filterable and condensable components.	Potential to emit ≥ 100
Ammonia (NH ₃)	Potential to emit ≥ 100
Lead (Pb)	Actual emissions ≥ 0.5

Is the facility below ALL of the thresholds listed?

☐ Yes
☐ No

Cancel
Proceed

3.4.1.1 Facilities Below All Pollutant Thresholds

If you answered "Yes" to the question "Is the facility below ALL of the thresholds listed?" then your facility will be opting out of emissions inventory reporting for the inventory year. The next screen you see, will show you the Summary Screen in CAERS where the summary will appear empty (Figure

3-18). Your previous year data will not be used to prepopulate the current inventory year, as your facility will not be submitting an annual report, but instead, will be saved for the next time your facility reports. Your report for this inventory year is effectively reporting that the facility opted out from the requirement to submit an emissions inventory report for this inventory year.

Please review your facility information carefully before certifying and submitting. Even if you are going to opt out, you will need to have updated facility information so that it is current, including a point of contact, for any subsequent submissions. If any information is incorrect or missing, please edit it. If there are corrections that you cannot make, as your SLT may not authorize you to do so, please reach out to them as soon as possible *before* you certify and submit. Otherwise, you may have to go through this process again until the correction is provided.

If you are opting out, GADNR requires a specific Opt-out form that you may attach by clicking on you will “Attach Report Document” and entering the document information into the pop up window (Figure 3-19). Failure to attach the Opt-out form will result in an error that will not allow the certifier to proceed with certification. The opt-out form for GADNR reporters can be found in the [GECO website](#) in the Emission Inventory Application section. Reach out to GADNR staff if you need further guidance on this. Once the Opt-out form is attached the certifier will click “Certify and Submit to SLT” (Figure 3-20). GADNR will only reject this submission and return to the facility if it encountered errors in the analysis. If so, the process must be re-started by going back to the “Emissions Reports” page and clicking “Delete”. Once that is done, the system will re-set and you will start the Opt in/Opt out process again.

Figure 3-18. Report Summary Page for a Facility that Opted Out

Agency ID: 99999999
Facility Inc.
123 Main Street
Mytown, GA 12345
2023 Emissions Report
Agency: GADNR

Report Facility & Emissions Information Perform Quality Checks Submit to SLT Authority Received by SLT Authority

Report Summary

Pollutant	Type	Fugitive Amount	Stack Amount	Units of Measure	2023 Reported Emissions	Previous Year Reported Emissions	Previous Submittal Year
Total Emissions (Tons)	--	--	--	--	0	0	--

[Download Report Summary](#) [Download Process Emissions Summary](#)

Preparer/NEI Certifier Attachments

Date	Role	User Name	Comments	Attachments
Attach Report Document				

You must attach your Potential to Emit (PTE) analysis before you can certify and submit.

[Certify and Submit to SLT](#)

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Figure 3-19. Attaching the Opt-out Form for GADNR Facilities that Opted Out

Attach Report Document

Search for document file to be attached to the 2023 Emissions Report for Facility Inc..

Comments:

(2000 character limit)

Attachment:

Report Facility & Emissions Information

Agency ID: 99999999
Facility Inc.
123 Main Street
Mytown, GA 12345
2023 Emissions Report
Agency: GADNR

Report Summary
Report History

Pollutant	Type	Fugitive Amount	Stack Amount	Units of Measure	2023 Reported Emissions	Previous Year Reported Emissions	Previous Submittal Year
Total Emissions (Tons)	--	--	--	--	0	0	--

Preparer/NEI Certifier Attachments

Date	Role	User Name	Comments	Attachments
2/1/24	NEI Certifier	Julia Gamas		PTE Analysis.xlsx

You must attach your Potential to Emit (PTE) analysis before you can certify and submit.

Figure 3-20. Certify and Submit for GADNR Facilities that Opted Out

Report Facility & Emissions Information **Perform Quality Checks** **Submit to SLT Authority** **Received by SLT Authority**

Report Summary

Pollutant	Type	Fugitive Amount	Stack Amount	Units of Measure	2023 Reported Emissions	Previous Year Reported Emissions	Previous Submittal Year
Total Emissions (Tons)	--	--	--	--	0	0	--

Preparer/NEI Certifier Attachments

Date	Role	User Name	Comments	Attachments
2/1/24	NEI Certifier	Julia Gamas		PTE Analysis.xlsx

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3.4.1.2 Facilities Above at Least One Pollutant Threshold

If you answer “No” to the question “Is the facility below ALL of the thresholds listed?” (Figure 3-17), then your facility will be opting in. The next screen you will see will be the “Report Summary”

screen. If you have submitted a previous year report, your data from that report will have prepopulated this screen and you can begin your report per section 4.1.3 of this User Guide. **Note that if the facility PTE emissions exceeds some of the pollutants, the actual emissions of *all* pollutants emitted at the facility must be reported.**

3.4.2 If the Facility was Temporarily or Permanently Shut Down

After selecting either “Temporarily Shutdown” or “Permanently Shutdown” you will be re-directed to the facility summary page, but the previous year report will not pre-populate your current year report. The Report Summary screen for facilities that have shut down will be the same for a facility that has opted out and will appear as an empty report (Figure 3-18). Your report for this inventory year, is effectively reporting the status change for your facility, and the status year will automatically be marked as the previous year (inventory year). See section 4.2.1 for more details on facility operating status. You will not be required to submit an opt-out form if your facility was shut down.

4 Reporting Emissions and Facility Information via the User Interface

4.1 Navigating the User Interface

4.1.1 General Description of User Interface Features

This section will help you understand the basics about navigating the CAERS User Interface (UI), that will be helpful whether you choose to do your reporting via UI, bulk entry, or bulk upload. The UI has many pages and data entry points, however, there are some common themes throughout the UI. This list will help you understand the general layout of the UI and its characteristics. Specific features are explained in more detail, including screenshots, in subsequent sections and are not duplicated here to avoid repetition.

General features (refer to Section 4.1.3, Figure 4-3):

- Breadcrumbs at the top of the screens displaying the path that got you to the current screen from the main "My Facilities" page.
- Submission steps bar at the top of the screen that indicates what step you are on in the submission process.
- A menu with links to different facility and emissions data pages on the left-hand side of the screen, that will help you find the relevant screens for viewing and data entry. Where multiple units exist, the menu can be expanded and collapsed.
- Link to “MyCDX” at the bottom of the screen.
- Link to “Help” at the top right of your screen that takes you to a page containing the help desk contact information and additional resources.

User interface data entry features:

- Organization of data in each screen in boxes: For example, facility information is organized in the following boxes: Facility Information, Facility North American Industrial Classification System (NAICS) Codes, Contact Information (Section 4.2.1, Figure 4-5). Facility Information Page).
- Greyed out data entry boxes indicating where data is not expected to be changed by the user (Section 4.2.1, Figure 4-6, for example).
- Asterisk “*” symbols indicate required data fields. Error messages appear for missing data fields and for data fields that are conditionally required (for example, entering one data field, even if optional, may require entry of a companion data field).

- Question mark icons next to data fields explain what they are and how to use them. In addition, the glossary in the help section contains all these definitions and can be downloaded for your reference.
- Drop down menus for data entry boxes assist the user in entering the relevant data without errors (Section 4.2.1, Figure 4-6 for example).
- Pop-up windows direct the user to make a choice or enter specific information related to the page the user is in (Section 4.2.1, Figure 4-7, for example).
- Data entry quality checks (warnings in purple, critical errors in red) to help the user to address issues and corrections before submission (Section 4.2.2, Figure 4-11, for example)
- “Trash can” icons to delete specific sub-facility components. These are not to be used when that component existed in a previous submission. If data was entered in error during the current submission, the trash can should be used. If the data existed in a previous submission, then the component operating status should be changed to temporarily or permanently shut down (as the case may be), and the year of that change should be recorded as well (Section 4.2.1, Figure 4-6 for example).
- Links for sub-facility components on lists to indicate when the user can edit them from there (Section 4.2.2, Figure 4-10, for example).
- Process of adding sub-facility components. These must be added first before they can be associated with other components. When a component is added as new, the associations won’t show up on the screen for that component until the component information has been filled out and saved (for example, compare screens for Figure 4-11 and Figure 4-13 in Section 4.2.2). Then, the component page can be re-opened and boxes for the associations will appear.

4.1.2 Emissions Reports Page

From “My Facilities”, click on Begin/Continue Reporting. This will take you to the “Emissions Reports” page, where you can see all the reports for that facility (See Figure 4-1 for a new report, and Figure 4-2 for a report in progress). CAERS will contain your report from the last year you submitted one, which will serve as a starting point for you to begin a new report for the current inventory year you are reporting. Note: For facilities reporting to GADNR, make sure to see section 3.4 for Georgia’s op-in/opt-out process before you proceed with this section.

From this screen you have options to work on your report as follows:

- If you will be reporting via the UI or Bulk Entry:
 - To start your current report, click on “Create New Report” (Figure 4-1). This will prepopulate your current year report with your previous year data. You will be re-directed to the facility “Report Summary” page. If your facility has control equipment, you should also familiarize yourself with Appendix A before beginning a report.
 - To continue your current report if you have already started it in a previous session, click “Continue” to be redirected to the UI (Figure 4-2).
- If you will be reporting using Bulk Upload:
 - Click on “Create New Report” (Figure 4-1), review that all your facility information is correct. Then you can download your previous year data *in the current reporting year pre-formatted template*. This can be used as a starting point to edit and enter your current year report. If you are using bulk upload to enter your report, refer to Section 5 and, if your facility has control equipment, refer to Appendix A before beginning a report.

- Once you’ve filled out your template with your current report, you can upload it from this screen as well by clicking on “Upload Report”.
- If you would like to view a previous year report, you can click on “View” to enter the UI and see the report without modifying it.
- The first report that appears for a facility in CAERS is the previous year report that the facility used as a basis for starting a new report in CAERS. This report will be visible at the bottom of the list of previous year reports as unfinished. For example, in Figure 4-1 the facility started using CAERS to create a 2023 inventory year report and their previous 2022 report was pulled into CAERS to be used as a starting point for the 2023 report. From 2023 onwards, the facility will continue to use the previous year report they submitted in CAERS as a starting point for the following year’s report (e.g. in 2025, the facility will create an inventory year 2024 report using the previous 2023 inventory year report they submitted in CAERS).
- If you find that your current year report is in error and would like to start over, you can click on the “Delete” button. Caution: *if you delete a previous year report, you will not be able to get the data back easily and recovery may take several weeks.* If you have any doubts, download a copy of your current report in the bulk upload template *before* you click “Delete” to ensure you can save this information for later reference.
- You will *not* be able to create a report for a previous inventory year to the current inventory year report. For example, if you did not enter a 2023 inventory year report during 2024, it is not possible to create such a report in CAERS in 2025. If you run into this difficulty, please consult with your SLT noting that it may take several weeks to code such a previous year report into CAERS. If this were to happen, please do not certify and submit any reports (e.g. do not certify and submit a 2024 report in 2025, while awaiting to create a 2023 inventory year report retroactively) until you have obtained further instructions.

Figure 4-1. Begin Emissions Report

The screenshot displays the 'Emissions Reports' page in the CAERS system. On the left, a sidebar shows facility details: Agency ID: 99999999, Facility Inc, 123 Main Street, Yazoo City, MS 12345, and Agency: MSDEQ. The main content area is titled 'Emissions Reports' and contains a table with three rows representing reports for 2024, 2023, and 2022. Each row has associated action buttons: 'Upload Report' (with a dropdown arrow), 'Continue', 'Download as Template' (with a dropdown arrow), and 'Delete'. The 2024 report also has a 'Create New Report' button. The 2023 report has a 'View' button. A 'Change Status' button is located at the top right of the table. The footer of the page includes links to EPA Home, MyCDX, Accessibility Notice, and Privacy and Security Notice.

Emissions Reports		Change Status
2024 Report	Upload Report ▾ Create New Report	
2023 Report		View
2022 Report	Upload Report ▾ Continue Download as Template ▾ Delete	

EPA Home | MyCDX | Accessibility Notice | Privacy and Security Notice

Figure 4-2. Emissions Report Page

My Facilities > Emissions Reports

Agency ID: 99999999
Facility Inc
123 Main Street
Yazoo City, MS 12345
Agency: MSDEQ

Emissions Reports

2024 Report

2023 Report

2022 Report

Upload Report Continue Download as Template Delete

View

Upload Report Continue Download as Template Delete

Change Status

EPA Home | MyCDX | Accessibility Notice | Privacy and Security Notice

4.1.3 Report Summary Page

Once you have selected a facility and report from the “My Facilities” page, you will be taken to a “Report Summary” page (Figure 4-3). Your new report will be preloaded based on your previous year submission, and will include a list of pollutants for that facility, the reported emissions in the current report, and the tons for each pollutant that were reported in your facility’s previous submission.

Figure 4-3. Facility Report Summary Page

My Facilities > Emissions Reports > 2024 Emissions Report

Agency ID: 99999999
Facility Inc
123 Main Street
Yazoo City, MS 12345
2024 Emissions Report
Agency: MSDEQ

Report Summary

Report Facility & Emissions Information

Perform Quality Checks

Submit to SLT Authority

Received by SLT Authority

Report Summary

Pollutant	Type	Fugitive Amount	Stack Amount	Units of Measure	2024 Reported Emissions	Previous Year Reported Emissions	Previous Submittal Year
Carbon Monoxide	CAP	0.0007875	0.0254625	Tons	0.02625	0.02625	2023
Chromium	HAP	1.5e-8	0.000001485	Tons	0.0000015	0.0000015	2023
Lead	CAP	0.00001377456	0.0004437744	Tons	0.000459152	0.000459152	2023
Manganese	HAP	0.000017545	0.000233955	Tons	0.0002515	0.0002515	2023
Nitrogen Oxides	CAP	0.026775	0.865725	Tons	0.8925	0.8925	2023
PM10 Primary (Filt + Cond)	CAP	0.073725	6.983775	Tons	7.0575	7.0575	2023
PM2.5 Primary (Filt + Cond)	CAP	0.037713	3.519387	Tons	3.5571	3.5571	2023
Sulfur Dioxide	CAP	0.19740528	6.38347272	Tons	6.580878	6.580878	2023
Volatile Organic Compounds	CAP	1.610430014742	55.432571459458	Tons	57.0430014742	57.0430014742	2023
Total Emissions (Tons)	--	--	--	--	75.1579416262	75.1579416262	--

Download Report Summary Download Process Emissions Summary

Preparer/NEI Certifier Attachments

Date	Role	User Name	Comments	Attachments

Attach Report Document

Annual Report Quality Checks

EPA Home | MyCDX | Accessibility Notice | Privacy and Security Notice

You will see breadcrumbs in the dark blue bar at the top of the screen. These display the path that got you to the current screen from the “My Facilities” page. By clicking on any of the links, you will be returned to a previous page. For example, from “2024 Emissions Report” you can click on “Emissions Reports” to be taken back to that page.

Below the breadcrumbs, at the top center of the screen, you’ll see a bar showing the four main steps of submission that will help guide you through the submission process:

- Report Facility & Emissions Information,
- Perform Quality Checks,

- Submit to SLT (your State, Local, or Tribal) Authority, and
- Received by SLT Authority.

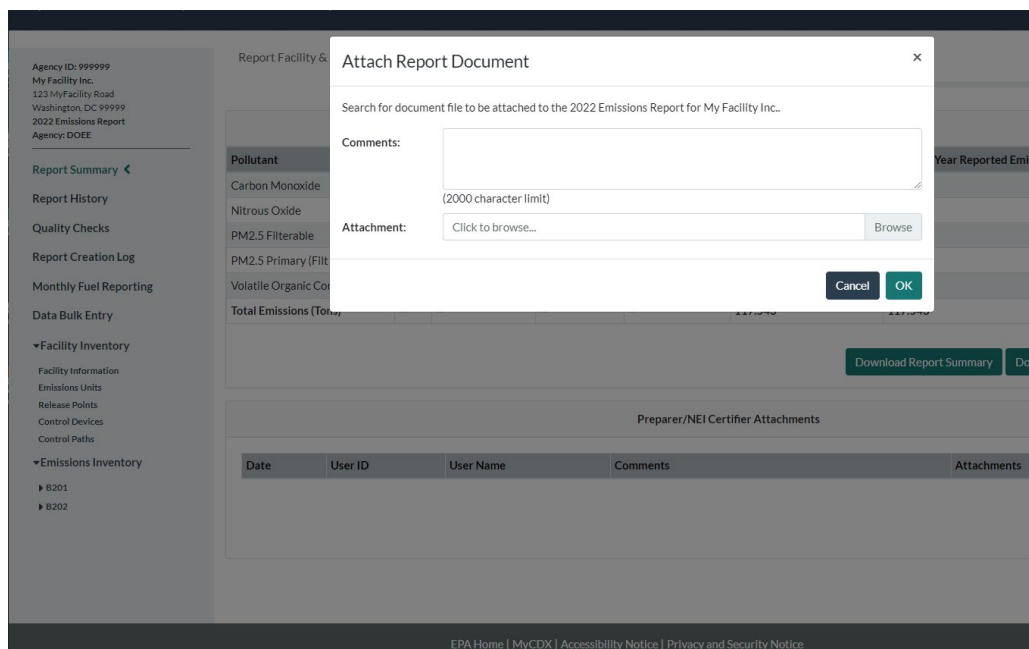
On the left-hand side you will see an expandable menu with links that will take you to different pages:

- Report History: shows a list of actions associated with the report over time and who performed them, for example, when it was created, submitted, whether the SLT has approved it.
- Quality Assurance (QA) Checks: takes you to the list of QA checks that your report, as it stands, is currently generating (see Section 7).
- Data Bulk Entry: takes you to the bulk entry tabs.
- Facility Inventory data: with summary pages for facility information, emissions units, release points, control devices, control paths (see Section 4.2.1.).
- Emissions Inventory: a collapsible list of units that you can expand to view the processes associated with each unit (see Section 4.3).

4.1.4 Including an Attachment in Your Report

You can add a file to your report to explain your calculations where CAERS has not done the calculations for you (e.g., when your estimation method is mass balance, engineering judgement, or the emission factor you are using is not listed in the CAERS menu). To attach a file to your report, go to the “Report Summary” page from the left-hand side menu. Below the “Report Summary” section you will see a section titled “Preparer/NEI Certifier Attachments”. Click on the “Attach Report Document” on the bottom right of that section (Figure 4-4). A window will pop up where you will be able to enter comments if needed, and then select the file to attach by using the “Browse” button to find and retrieve your attachment. Click “OK” when you have selected the right file to attach. Your SLT may require that the attachment show the formulas and their application in an excel file. For your SLT, a verbal description may not be sufficient, as your SLT should be able to verify your estimates. Please be advised that if you do not submit your attachment in the format your SLT requires, this may result in your report being rejected and sent back to you automatically.

Figure 4-4. Including an Attachment



Once you have attached the file you will see it listed in the attachments section. It will also appear listed in the “Report History” page that you can get to from the left-hand side menu of your screen.

If you need to remove an attachment, from within the “Report Summary” page, click on the garbage icon to the right of the document attachment name. You will be asked to confirm the deletion. Once deleted, the attachment will no longer appear in the list of attachments. However, a record of the attachment upload and its removal will appear in the “Report History” page to help you keep track of your work and ensure you have the most updated attachment you wish to submit with your report.

4.2 Facility Inventory

4.2.1 Facility Information

From the left-hand side menu, click on “Facility Inventory” to expand that menu. Click on “Facility Information” to get to the facility information screen (Figure 4-5).

Figure 4-5. Facility Information Page

The screenshot displays the 'Facility Information' page. At the top, a progress bar shows four steps: 'Report Facility & Emissions Information' (active), 'Perform Quality Checks', 'Submit to SLT Authority', and 'Received by SLT Authority'. The left sidebar contains a menu with options like 'Report Summary', 'Report History', 'Annual Report Quality Checks', 'Report Creation Log', 'Data Bulk Entry', 'Facility Inventory' (expanded), 'Emissions Units', 'Release Points', 'Control Devices', 'Control Paths', 'Emissions Inventory', and a sub-menu for B101, B102, B201, and B301. The main content area is titled 'Facility Information' and includes an 'Edit' button. It contains several sections: 'Agency Facility ID' (999999999), 'Facility Name' (Facility Inc.), 'Latitude' (45.649315), 'Longitude' (-69.645359), 'Operating Status' (Operating), 'Year Op Status Changed' (2015), 'Facility Category Code' (CAP Major), 'Facility Address' (123 Main Street, Camptown, ME 04999), 'Mailing Address' (123 Main Street, Camptown, ME 04999), 'County' (Piscataquis), 'BIA Code', 'Description' (A facility in Moosehead Lake), and 'Comments'. Below this is a table for 'Facility NAICS Codes' with columns for 'NAICS Description', 'NAICS Code', and 'NAICS Code Type'. The table lists three entries: 'Dog and Cat Food Manufacturing' (311111, SECONDARY), 'Other Animal Food Manufacturing' (311119, SECONDARY), and 'Seafood Product Preparation and Packaging' (311710, PRIMARY). At the bottom is a section for 'Facility Contact Information' with an 'Edit' button, containing fields for 'Contact Type' (Emissions Inventory), 'Contact Name' (Samantha Sorrels), 'Contact Address' (123 Main Street, Camptown, ME 04999), 'Phone Number' (999-999-9999), 'Email Address' (sorrels.samantha@facility.com), 'Mailing Address' (123 Main Street, Camptown, ME 04999-1111), 'Ext.', and 'County' (Piscataquis). An 'Add Facility Contact Information' button is at the bottom right.

You will be able to edit facility information by clicking on the “Edit” button at the far right, which will take you to the facility information edit page (Figure 4-6). Note that fields that have been locked will not be editable. They will appear in gray. You should contact your SLT authority if you think there is an error in locked fields. A gray arrow within a data field box indicates a drop-down menu is available to choose your entry.

- **Facility Operating Status:** If the facility operated partially in the reporting year and was permanently shut down in the reporting year, you will need to leave the “Operating” status

unchanged for the year you are reporting and change it the following reporting year. For example, if the facility operated in part in 2019 and shut down for the rest of 2019, you would change its status to permanently shut down in your 2020 inventory year report but would have it as operating in 2019. Once you change the operating status to “Permanently Shutdown”, all units, processes, control devices, and release points will also be automatically set to “Permanently Shutdown”, and you will no longer be able to enter data for the facility. The operating status year can be set to a year in the past, but not if emissions were reported in that year in a previous year report. An operating facility that reported 0 emissions in a previous year, will still be considered “Operating”, so you should ensure consistency in your reports over time.

Figure 4-6. Editing Facility Information

Agency ID: 999999999
Facility Inc.
123 Main Street
Camptown, ME 04999
2023 Emissions Report
Agency: MEDEP

Report Summary
Report History
Annual Report Quality Checks
Report Creation Log
Data Bulk Entry
▼Facility Inventory
Facility Information ◀
Emissions Units
Release Points
Control Devices
Control Paths
▼Emissions Inventory
► B101
► B102
► B201
► B301

Report Facility & Emissions Information Perform Quality Checks Submit to SLT Authority Received by SLT Authority

Facility Information

Agency Facility ID: 999999999
Facility Name: Facility Inc.
Longitude: -69.645359
Facility Category Code: CAP Major
Facility Address: 123 Main Street
City: Camptown
State: ME
ZIP code: 04999
County: Piscataquis
BIA Code:
Mailing Street Address: 123 Main Street
ZIP code: 04999
State: ME
Description: A facility in Moosehead Lake.
Comments:

Operating Status: Operating
Operating but State/Local/Tribe Not Reporting Emissions
Operating but State/Local/Tribe Reporting Emissions in the Non Permanently Shutdown
Temporarily Shutdown

Cancel Save

Facility NAICS Codes

NAICS Description	NAICS Code	NAICS Code Type
Dog and Cat Food Manufacturing	311111	SECONDARY
Other Animal Food Manufacturing	311119	SECONDARY
Seafood Product Preparation and Packaging	311710	PRIMARY

+

If your facility was marked with a status of Temporarily or Permanently Shutdown in a previous year, you may change that status for the current year by clicking on the “Change Status” button at the top right of the Emissions Reports page (Figure 4-2). This will allow previously reported data to make its way to a new report. This feature is only for industry reporters who do not report to GADNR. If you report to GADNR you must go through the opt-in/opt-out process to change the status of your facility.

- **Adding NAICS Codes:** Under the “Facility Information” box, you will be able to add a NAICS code if your SLT allows it. More than one NAICS are allowed as secondary and tertiary NAICS codes, but a single NAICS should be designated as the primary NAICS code. When you click the “+” button at the bottom right of that box, a pop-up window will appear to help you search for your NAICS (Figure 4-7). Type the digits of your NAICS and a menu for the NAICS that contain those

numbers will appear to help you select the correct code (Figure 4-8). Once you've selected your NAICS, click the "Submit" button. If you have questions about NAICS you can reference the [U.S. Census Bureau](https://www.census.gov/naics/).

NAICS change every 5 years. NAICS were updated for inventory year 2022. If you have an outdated NAICS in your report, the system will indicate this to you. If your SLT does not allow you to edit the NAICS and you have an outdated or incorrect NAICS, you should reach out to them to make the correction before you certify and submit.

Figure 4-7. Edit Facility NAICS Codes

The screenshot displays the EPA CAER system interface. A modal dialog box is open, titled "Select an NAICS Code to add to the facility". Inside the dialog, there is a text input field labeled "Select NAICS Code:" and a checkbox labeled "Make this Primary NAICS for facility?". Below the input field are "Cancel" and "Submit" buttons. The background interface shows the "Facility Inventory" section on the left with a list of facilities. The main content area displays the "Facility Contact Information" for two facilities. The first facility is "Paperboard Mills" with contact details for Jon Miller. The second facility is "Permit" with contact details for Jon Smith. At the bottom of the page, there is a footer with links: "EPA Home | MyCDX | Combined Air Emissions Reporting (CAER) | CAER Program Contacts".

Figure 4-8. Find and Select NAICS Code

The screenshot shows the CAERS application interface. A search window titled "Search a NAICS Code to add to the facility" is open. The search bar contains "334". The results list includes:

- 111334 - Berry (except Strawberry) Farming
- 333413 - Industrial and Commercial Fan and Blower and Air Purification Equipment Manufacturing
- 333414 - Heating Equipment (except Warm Air Furnaces) Manufacturing
- 333415 - Air-Conditioning and Warm Air Heating Equipment and Commercial and Industrial Refrigeration Equipment Manufacturing
- 334111 - Electronic Computer Manufacturing
- 334112 - Computer Storage Device Manufacturing
- 334118 - Computer Terminal and Other Computer Peripheral Equipment Manufacturing
- 334210 - Telephone Apparatus Manufacturing
- 334220 - Radio and Television Broadcasting and Wireless Communications Equipment Manufacturing
- 334290 - Other Communications Equipment Manufacturing
- 334310 - Audio and Video Equipment Manufacturing
- 334412 - Bare Printed Circuit Board Manufacturing
- 334413 - Semiconductor and Related Device Manufacturing
- 334416 - Capacitor, Resistor, Coil, Transformer, and Other Inductor Manufacturing
- 334417 - Electronic Connector Manufacturing
- 334418 - Printed Circuit Assembly (Electronic Assembly) Manufacturing
- 334419 - Other Electronic Component Manufacturing
- 334510 - Electromedical and Electrotherapeutic Apparatus Manufacturing
- 334511 - Search, Detection, Navigation, Guidance, Aeronautical, and Nautical System and Instrument Manufacturing
- 334512 - Automatic Environmental Control Manufacturing for Residential, Commercial, and Appliance Use

The background page shows the "Facility Information" section with the following details:

- Agency ID: 999999
- My Facility Inc.
- 123 MyFacility Road
- Washington, DC 99999
- 2022 Emissions Report
- Agency: DOE
- Status: Operating
- County: District of Columbia
- Contact Address: 123 MyFacility Road, Washington, DC 99999
- Mailing Address: 123 MyFacility Road, Washington, DC 99999

- Facility Contact Information:** Below the NAICS code box, you should find the “Facility Contact Information” box(es). Note that if you have not submitted information to CAERS before, no boxes will be displayed yet. You can enter as many contacts for the facility as you need. For example, you may enter a point of contact as the facility expert on emissions inventory criteria pollutant questions, and another for the Toxics Release Inventory expert. Click on the “Add Facility Contact Information” at the bottom right of the screen to open a window to enter new facility contact information (Figure 4-9). Enter all relevant information such as name, number, and make sure to select a “Contact Type”.

You will be required to enter at least one contact for Emissions Inventory (EI) reporting. This should be the person that your SLT authority can reach out to if they have questions about the data in your CAERS submission. If a contact person for the NEI is missing, a QA error will appear at the top of the “Facility Information” page. For the NEI contact select contact type: “Emissions Inventory”. Click “Save” after adding the information. The application will automatically take you back to the “Facility Information” page and you should be able to see your contact information displayed at the bottom of the page. You can also edit an existing contact by clicking on the “Edit” button for that contact. This will take you to that contact’s edit page where you will be able to make changes.

Figure 4-9. Enter Facility Contact Information

Agency ID: 999999999
Facility Inc.
 123 Main Street
 Camptown, ME 04999
 2023 Emissions Report
 Agency: MEDEP

Report Summary
Report History
Annual Report Quality Checks
Report Creation Log
Data Bulk Entry
Facility Inventory
 Facility Information
 Emissions Units
 Release Points
 Control Devices
 Control Paths
Emissions Inventory
 B101
 B102
 B201
 B301

Report Facility & Emissions Information | **Perform Quality Checks** | **Submit to SLT Authority** | **Received by SLT Authority**

Facility Information

Agency Facility ID:	999999999	Latitude:	45.649315	Operating Status:	Operating
Facility Name:	Facility Inc.	Longitude:	-69.645359	Year Op Status Changed:	2015
Facility Source Type:		Facility Category Code:	CAP Major		
Facility Address:	123 Main Street Camptown, ME 04999	Mailing Address:	123 Main Street Camptown, ME 04999	County:	Piscataquis
BIA Code:					
Description:	A facility in Moosehead Lake.				
Comments:					

Contact Information

Prefix:

First Name:

Phone Number:

Email Address:

Contact Street Address:

City:

County:

Contact Type:

Last Name:

Ext.:

State:

ZIP code:

☐ Make mailing address the same as contact address.

Mailing Street Address:

City:

State:

ZIP code:

Cancel **Save**

Please note that World Geodetic System 1984 (WGS84) datum is assumed to be used for your latitude and longitude data. If you feel the coordinates are incorrect, please reach out to the SLT for assistance.

4.2.2 Emission Units Page

From the left-hand side menu, click on “Emissions Units” to go to a list of units in your facility (Figure 4-10).

- **To add a unit**, click on the plus sign at the bottom of the list. This will take you to a blank unit page (Figure 4-11). Add all the data fields. Messages will appear where required information is missing. When you have entered all unit information, click “Save” and this will take you back to the Units page. Your new unit will now be listed on that page as an existing unit. If you are entering new unit data and find you have begun entering it in error, click “Cancel” to take you back to the “Emissions Units” page without saving any edits. You should consult with your SLT on what should be used to determine a “Unit ID,” such as what is listed in a permit, etc. before assigning an ID to a new unit.

Figure 4-10. Emissions Units Page

Agency ID: 999999999
 Facility Inc.
 123 Main Street
 Camptown, ME 04999
 2023 Emissions Report
 Agency: MEDEP

Report Summary
 Report History
 Annual Report Quality Checks
 Report Creation Log
 Data Bulk Entry
 ▼Facility Inventory
 Facility Information
 Emissions Units
 Release Points
 Control Devices
 Control Paths
 ▼Emissions Inventory
 ▶ B101
 ▶ B102
 ▶ B201
 ▶ B301

Report Facility & Emissions Information Perform Quality Checks Submit to SLT Authority Received by SLT Authority

Unit ID	Unit Type	Unit Description	Operating Status	
B101	Boiler	Boiler Production Line 1	Operating	🗑️
B102	Boiler	Boiler Production Line 2	Operating	🗑️
B201	Conveyor Stand Dryer	Dryer production line 2	Operating	🗑️
B301	Process Heater	Oven Building 1	Operating	🗑️
+				

Figure 4-11. Adding a New Unit

Agency ID: 999999999
 Facility Inc.
 123 Main Street
 Camptown, ME 04999
 2023 Emissions Report
 Agency: MEDEP

Report Summary
 Report History
 Annual Report Quality Checks
 Report Creation Log
 Data Bulk Entry
 ▼Facility Inventory
 Facility Information
 Emissions Units
 Release Points
 Control Devices
 Control Paths
 ▼Emissions Inventory
 ▶ B101
 ▶ B102
 ▶ B201
 ▶ B301

Report Facility & Emissions Information Perform Quality Checks Submit to SLT Authority Received by SLT Authority

Emission Unit Information

Unit ID: A012
 Unit Type Code:
 Unit Description:
 Unit Design Capacity:
 Comments:

Operating Status:
 Year Op Status Changed:
 Unit Design Capacity UoM:

Cancel Save

- **To edit an existing unit**, from the “Emissions Units” page click on the corresponding unit ID from the list of units to be taken to that unit’s page (Figure 4-12). On the unit page, you’ll see the “Emission Unit Information” box. Click on the “Edit” button at the top right of the screen to make changes to the emissions unit information. This will take you to that unit’s edit screen (Figure 4-13). When you are finished with your edits click “Save” to take you back to the “Emissions Units” page. If you entered data by mistake, click “Cancel”, the changes will not be saved, and you will be returned to the “Emissions Units” page.

Figure 4-12. Example of a Page for a Specific Unit

Agency ID: 999999999
Facility Inc.
123 Main Street
Camptown, ME 04999
2023 Emissions Report
Agency: MEDEP

Report Summary
Report History
Annual Report Quality Checks
Report Creation Log
Data Bulk Entry

▼Facility Inventory
Facility Information
Emissions Units
Release Points
Control Devices
Control Paths

▼Emissions Inventory
A012
▶ B101 ◀
▶ B102
▶ B201
▶ B301

Report Facility & Emissions Information Perform Quality Checks Submit to SLT Authority Received by SLT Authority

Emissions Unit Information Edit

Unit ID: B101 Unit Type Code: Boiler Operating Status: Operating
Unit Description: Boiler Production Line 1 Year Op Status Changed: 2018
Unit Design Capacity: 100 Unit Design Capacity UoM: HP
Comments:

Processes Associated with this Emissions Unit

Process ID	SCC	
123	39001099	
123	39001099	
P101	10200107	

Controls Associated with this Emissions Unit

Control	Description	Control Path
2	Control in a series.	2
3	Control in a series.	2

Figure 4-13. Editing a Unit

Agency ID: 999999999
Facility Inc.
123 Main Street
Camptown, ME 04999
2023 Emissions Report
Agency: MEDEP

Report Summary
Report History
Annual Report Quality Checks
Report Creation Log
Data Bulk Entry

▼Facility Inventory
Facility Information
Emissions Units
Release Points
Control Devices
Control Paths

▼Emissions Inventory
A012
▶ B101 ◀
▶ B102
▶ B201
▶ B301

Report Facility & Emissions Information Perform Quality Checks Submit to SLT Authority Received by SLT Authority

Emissions Unit Information

Unit ID: B101
Unit Type Code: Boiler
Unit Description: Aerated Grit Chamber
Unit Design Capacity: 100
Comments:

Operating Status: Operating
Year Op Status Changed: 2018
Unit Design Capacity UoM: HP

Processes Associated with this Emissions Unit

Process ID	SCC	
123	39001099	
123	39001099	
P101	10200107	

Controls Associated with this Emissions Unit

Control	Description	Control Path
2	Control in a series.	2
3	Control in a series.	2

- **To delete a unit**, you should only delete a unit using the garbage can icon if you added it to this year's report and that addition was an error. If the unit existed in a previous year's report and is no longer in use for the entirety of this reporting year, you should click on its ID and change its status from "Operating" to "Permanently Shutdown" and mark the status year as the year when it was shut down. If the unit operated part of the reporting year and then was permanently shut down, then the unit is considered as operating during that reporting year and should be marked as permanently shut down in next year's report. You may, instead, mark it as "Temporarily Shutdown" if it may be active again in the future.
- **Important additional considerations about units:**

- **New but inactive units:** Please do not create a new unit and then mark it as temporarily or permanently shut down. If you have a new unit that will report emissions in a future year, add it in that future year report.
- **Choosing IDs:** If your SLT allows it, the reporter can choose the ID for the unit. There is a requirement that all IDs for the facility must be unique. You should choose ID's that you will not find confusing to use in future. Once an ID has been assigned to a unit, it cannot be changed. To change that ID, you will have to delete the unit and create another one with the desired ID instead.
- **Relabeling pitfall:** If you simply relabel units with new IDs in the bulk upload template, this will create new units with the new ID's, upon upload. CAERS will keep the units with the previous ID's and add the new ones, effectively duplicating the units in your facility. Therefore, you should mark the units labelled with the old ID's as "Permanently Shutdown". Your efforts in this regard will help us keep your facility inventory up to date. Consult your SLT before attempting to use new ID's, as they may have specific guidelines they'd like you to follow.
- **Editing processes:** At the bottom of each unit's page, you will also see processes and controls associated with that unit. You can add, edit, or delete processes associated with this unit from this page by clicking on the process ID. See section 4.3.2 to learn how to add, edit, or delete processes.
- **Editing controls:** You can also edit controls from this page. Note that if no controls appear on the unit's page, but there are existing controls that should be associated with this unit, you must add those controls to the system first. They will appear on this unit page once you have done so and associated them with the relevant units and processes. See section 4.2.4 to learn how to add, edit or delete controls.

4.2.3 Release Points Page

From the left-hand side menu, click on "Release Points" under the "Facility Inventory" heading. You will see a list of release points associated with the facility (Figure 4-14).

Figure 4-14. Release Points Page

Agency ID: 999999999
Facility Inc.
123 Main Street
Camptown, ME 04999
2023 Emissions Report
Agency: MEDEP

Report Facility & Emissions Information | Perform Quality Checks | Submit to SLT Authority | Received by SLT Authority

Release Point ID	Release Point Type	Release Point Description	Operating Status	
RP1	Goose Neck	Release Point Building 1	Operating	
RP2	Fugitive 3-D: Center of Release Footprint Coords	Building 1	Operating	
RP3	Vertical	Release Point Building 2	Operating	
RP4	Fugitive 3-D: Center of Release Footprint Coords	Building 2	Operating	
				+

Report Summary
Report History
Annual Report Quality Checks
Report Creation Log
Data Bulk Entry
▼ Facility Inventory
Facility Information
Emissions Units
Release Points ◀
Control Devices
Control Paths
▼ Emissions Inventory
A012
▶ B101
▶ B102
▶ B201
▶ B301

- **To add a new release point**, click on the “+” sign at the bottom right of the list. This will take you to a blank release point page. Enter all relevant information. Messages will appear for required fields. Dropdown menus are available for some data fields by clicking on the arrow in the data field box (Figure 4-15). Click “Save” to take you back to the “Release Points” page. Your new release point will now appear in the list of existing release points. If you entered new release point data by mistake, click “Cancel” so the changes will not be saved. You will be taken back to the “Release Points” page. Consult with your SLT on what should be used to determine a “Release Point ID,” such as what is listed in a permit, etc.
- **To edit an existing release point**, click on the release point ID from the list of release points. This will take you to that release point’s information page (Figure 4-16). Click on “Edit” at the top right of the screen for that release point. You will also be taken to the release point page where you will enter all relevant information about that release point (Figure 4-17). A gray arrow icon next to a data field indicates a drop-down menu that will allow you to make a choice. Consult with your SLT before attempting to edit the ID of an existing release point in case the SLT has requirements on how those IDs should be set, and whether they should be modified.
- **To delete a release point**, note that the garbage can icon on the “Release Points” page should only be used if you added a release point by mistake during this submission. If you are retiring a release point that existed in a previous report, then you must go into that release point’s screen by clicking on the release point ID from the list and change the operating status to “Permanently Shutdown”. You may instead mark it as “Temporarily Shutdown” if it may be active again in the future.
- **Important additional considerations about release points:**
 - **New inactive release points:** Please do not create a new release point and then mark it as temporarily or permanently shut down. If you have a new release point that will report emissions in a future year, add it in that future year report.
 - **Choosing IDs:** If your SLT allows it, the reporter can choose the ID for the release point. There is a requirement that no two release points be labeled with the exact same ID. You should choose ID’s that you will not find confusing to use in future. Consult your SLT on any rules the SLT may have regarding IDs. For example, the SLT may want your release point to be labelled by a specific naming convention. Once an ID has been assigned to a release point, it cannot be changed. To change that ID, you will have to delete the release point and create another one with the desired ID instead.
 - **Relabeling pitfall:** If you simply relabel release points with new IDs in the bulk upload template, this will create new release points with the new ID’s. Upon upload, CAERS will keep the release points with the previous ID’s and add the new ones, effectively duplicating the release points in your facility. Therefore, you should mark the release points labelled with the old ID’s as “PS”. Your efforts in this regard will help us keep your facility inventory up to date. Consult your SLT before attempting to use new ID’s, as they may have specific guidelines they’d like you to follow.
 - **Datum for coordinates:** All coordinates for release points in CAERS are assumed to use a WGS84 datum. For reference, WGS84 is used in popular geo-location applications online and on mobile devices. But you should ensure you are using the correct datum when providing your release point latitude and longitude to avoid potential location errors in future.

Figure 4-15. Adding a New Release Point

Agency ID: 999999999
Facility Inc.
123 Main Street
Camptown, ME 04999
2023 Emissions Report
Agency: MEDEP

Report Summary
Report History
Annual Report Quality Checks
Report Creation Log
Data Bulk Entry
▼Facility Inventory
Facility Information
Emissions Units
Release Points
Control Devices
Control Paths
▼Emissions Inventory
A012
▶ B101
▶ B102
▶ B201
▶ B301

Report Facility & Emissions Information Perform Quality Checks Submit to SLT Authority Received by SLT Authority

Release Point Information

① Release Point ID: * RP5

② Release Point Description:

③ Release Point Type: *
 Downward-facing Vent
 Fugitive 2-D: Two Midpoint Coord Pairs
 Fugitive 3-D: Center of Release Footprint Coords
 Fugitive Area: SW Corner Coords
Goose Neck
 Horizontal
 Low Flow Vent
 Vertical
 Vertical with Rain Cap

④ Latitude Measure:

⑤ Exit Gas Velocity Measure:

⑥ Exit Gas Flow Rate Measure:

⑦ Exit Gas Temperature Measure:

⑧ Stack Height Measure: FT

⑨ Stack Length Measure: FT

⑩ Operating Status: *
 Year Op Status Changed: *
 Fence Line Distance Measure: FT
 Longitude Measure:

Exit Gas Velocity UoM: *
 Exit Gas Flow Rate UoM: *
 Stack Diameter Measure: FT
 Stack Width Measure: FT

Comments:

Cancel Save

On an existing release point's page, you can view processes and controls associated with that specific release point. See Section 4.3.2 on how to edit processes and Section 4.2.4 on how to edit controls. Once you have done so, they will appear in the release points page.

Figure 4-16. Example of a Page for a Release Point

Agency ID: 999999999
Facility Inc.
123 Main Street
Camptown, ME 04999
2023 Emissions Report
Agency: MEDEP

Report Summary
Report History
Annual Report Quality Checks
Report Creation Log
Data Bulk Entry
▼Facility Inventory
Facility Information
Emissions Units
Release Points
Control Devices
Control Paths
▼Emissions Inventory
A012
▶ B101
▶ B102
▶ B201
▶ B301

Report Facility & Emissions Information Perform Quality Checks Submit to SLT Authority Received by SLT Authority

Release Point Information Edit

Release Point ID:	RP3	Release Point Type:	Vertical	Operating Status:	Operating
Fence Line Distance:		Release Point Description:	Release Point Building 2	Year Op Status Changed:	2017
Fence Line Distance UoM:		Latitude Measure:		Longitude Measure:	
Exit Gas Velocity Measure:	100	Exit Gas Flow Rate Measure:	2500	Exit Gas Temperature Measure (F):	75
Exit Gas Velocity UoM:	FEET PER MINUTE	Exit Gas Flow Rate UoM:	ACTUAL CUBIC FEET PER MINUTE		
Stack Height Measure:	10	Stack Width Measure:	5	Stack Length Measure:	5
Stack Height UoM:	FEET	Stack Width UoM:	FEET	Stack Length UoM:	FEET
Comments:					

Processes Associated with this Release Point

Process ID	SCC
P102	10101302
P102-1	10101302
P201	30200810

Controls Associated with this Release Point

Control	Description	Control Path
4	A control in parallel.	3
5	A control in parallel.	3

Figure 4-17. Editing a Release Point

Agency ID: 999999999
Facility Inc.
123 Main Street
Camptown, ME 04999
2023 Emissions Report
Agency: MEDEP

Report Facility & Emissions Information | Perform Quality Checks | Submit to SLT Authority | Received by SLT Authority

Release Point Information

Release Point ID: RP2

Release Point Description: Building 1

Release Point Type: Fugitive 3-D: Center of Release Foot

Center Latitude Measure: 45.65

Exit Gas Velocity Measure:

Exit Gas Flow Rate Measure:

Exit Gas Temperature Measure: °F

Fugitive Height Measure: 150 FT

Fugitive Width Measure: 100 FT

Operating Status: Operating

Year Op Status Changed: 2015

Fence Line Distance Measure: FT

Center Longitude Measure: -69.645342

Exit Gas Velocity UoM: FPM, FPS

Exit Gas Flow Rate UoM:

Comments:

Cancel Save

Processes Associated with this Release Point

Process ID	SCC
P101	10200107
P301	39000702

Controls Associated with this Release Point

Control	Description	Control Path
1	Single control in path.	1
2	Control in a series.	2
3	Control in a series.	2

4.2.4 Control Devices Page

Appendix A in this document explains the concepts surrounding controls. You should familiarize yourself with that section before proceeding to set up your facility's controls. While you are highly encouraged to provide the data at the individual equipment level, a very complex control set up with combinations of controls in sequence and in parallel may make it more tenable for you to report control efficiencies at the path level. Your SLT may require you to provide more detailed information, so you should check with your SLT authority before creating the controls and control paths portion of your emissions report.

From the left-hand side menu, click on "Control Devices" under the "Facility Inventory" heading. Once you have entered control equipment data, you will see a list of control devices associated with the facility (Figure 4-18).

Figure 4-18. Control Devices Page

Agency ID: 9999999999
 Facility Inc.
 123 Main Street
 Camptown, ME 04999
 2023 Emissions Report
 Agency: MEDEP

Report Summary

Report History

Annual Report Quality Checks

Report Creation Log

Data Bulk Entry

▼Facility Inventory

Facility Information

Emissions Units

Release Points

Control Devices ◀

Control Paths

▼Emissions Inventory

A012

▶ B101

▶ B102

▶ B201

▶ B301

Report Facility & Emissions Information

Perform Quality Checks

Submit to SLT Authority

Received by SLT Authority

Control Devices

Control ID	Control Description	Operating Status	
1	Single control in path.	Operating	🗑️
2	Control in a series.	Operating	🗑️
3	Control in a series.	Operating	🗑️
4	A control in parallel.	Operating	🗑️
5	A control in parallel.	Operating	🗑️
			+

- **To add a new control device**, click on the “+” sign at the bottom right of the list of controls. This will take you to a blank control page (Figure 4-19). As with other sub-facility components, drop-down menus are available for fields that require a selection. For example, to select the operating status click on the gray arrow icon. Note that the control ID for each individual control must be unique within the facility. On the control’s page, add the percent effectiveness. To ensure adding all relevant information, QA check messages will appear for data fields that are required, for value ranges (for example, percent effectiveness must be less than 100%), and for other errors. Click on “Save” to add the new control to the list of existing controls. Now that the control has been added to the list of controls, you can edit it and associate it to paths and pollutants.
- **To edit an existing control device**, click on the control device ID from the list of controls. This will take you to that control device’s information page (Figure 4-20). Click on “Edit” which will open the edit screen for the control (Figure 4-21).

Figure 4-19. Adding a New Control Device

Agency ID: 9999999999
Facility Inc.
123 Main Street
Camptown, ME 04999
2023 Emissions Report
Agency: MEDEP

Report Summary

Report History

Annual Report Quality Checks

Report Creation Log

Data Bulk Entry

▼Facility Inventory

Facility Information

Emissions Units

Release Points

Control Devices

Control Paths

▼Emissions Inventory

A012

▶ B101

▶ B102

▶ B201

▶ B301

Report Facility & Emissions Information

Perform Quality Checks

Submit to SLT Authority

Received by SLT Authority

Control Device Information

Control ID: * Control AB

Control Measure: *

Control Description:

Control Number Operating Months:

Control Start Date: yyyy-mm-dd

Control End Date: yyyy-mm-dd

Control Upgrade Description:

Comments:

Operating Status: *

Year Op Status Changed: *

Percent Control Effectiveness:

Control Upgrade Date: yyyy-mm-dd

Cancel Save

Figure 4-20. Example of a Page for a Control Device

Agency ID: 9999999999
Facility Inc.
123 Main Street
Camptown, ME 04999
2023 Emissions Report
Agency: MEDEP

Report Summary

Report History

Annual Report Quality Checks

Report Creation Log

Data Bulk Entry

▼Facility Inventory

Facility Information

Emissions Units

Release Points

Control Devices

Control Paths

▼Emissions Inventory

A012

▶ B101

▶ B102

▶ B201

▶ B301

Report Facility & Emissions Information

Perform Quality Checks

Submit to SLT Authority

Received by SLT Authority

Control Device Information

Control ID: 3

Control Measure: Wet Scrubber

Control Description: Control in a series.

Control Number Operating Months: 12

Control Start Date: 2018-01-01

Control Upgrade Description:

Comments:

Operating Status: Operating

Year Op Status Changed: 2018

Percent Control Effectiveness: 99

Control Upgrade Date:

Control End Date:

Edit

Control Device Assignment

Identifier	Component	Type
B101	Boiler Production Line 1	Emissions Unit
P101	Diesel	Emissions Process
RP1	Release Point Building 1	Release Point
RP2	Building 1	Release Point

Control Device Pollutants

Pollutant Name	Code	CAS ID	% Reduction Efficiency
PM10 Filterable	PM10-FIL		93
PM2.5 Filterable	PM25-FIL		93
Sulfur Dioxide	SO2	7446-09-5	90

Paths Associated with this Control

Path Identifier	Path Description
2	Path 2: B101 > P101 > Control 2 > Control 3 > RP1 & RP2

Figure 4-21. Editing a Control Device

Report Facility & Emissions Information
Perform Quality Checks
Submit to SLT Authority
Received by SLT Authority

Agency ID: 9999999999
 Facility Inc.
 123 Main Street
 Camptown, ME 04999
 2023 Emissions Report
 Agency: MEDEP

Report Summary

Report History

Annual Report Quality Checks

Report Creation Log

Data Bulk Entry

▼ Facility Inventory

Facility Information

Emissions Units

Release Points

Control Devices

Control Paths

▼ Emissions Inventory

A012

▶ B101

▶ B102

▶ B201

▶ B301

Control Device Information

① Control ID: *

② Control Measure: *

③ Control Description:

④ Control Number Operating Months:

⑤ Control Start Date:

⑥ Control End Date:

⑦ Control Upgrade Description:

Comments:

⑧ Operating Status: *

⑨ Year Op Status Changed:

⑩ Percent Control Effectiveness:

⑪ Control Upgrade Date:

Control Device Assignment

Identifier	Component	Type
B101	Boiler Production Line 1	Emissions Unit
P101	Diesel	Emissions Process
RP1	Release Point Building 1	Release Point

Control Device Pollutants

Pollutant Name	Code	CAS ID	% Reduction Efficiency		
PM10 Filterable	PM10-FIL		93	<input type="checkbox"/>	<input type="checkbox"/>
PM2.5 Filterable	PM25-FIL		93	<input type="checkbox"/>	<input type="checkbox"/>
Sulfur Dioxide	SO2	7446-09-5	90	<input type="checkbox"/>	<input type="checkbox"/>

- **To associate a pollutant with this control device**, click on the “+” sign at the bottom right of the “Control Device Pollutants” box. You will be taken to a pop-up window that will allow you to select a pollutant. Start typing the name of the pollutant or its abbreviation (for example, PM) and a list of possible pollutants will appear for you to make your selection (Figure 4-22). When you have chosen the pollutant and entered the control percent reduction efficiency, click “Save” and you will be returned to the control device’s information page. Now, the pollutant you entered will appear in the list of pollutants.

Figure 4-22. Associating a Pollutant and Control Efficiency to a Control Device

Control Device Pollutant

Pollutant: Carbon Monoxide - CO - 630-08-0

Percent Reduction Efficiency:

Save Cancel

Control Device Assignment

Identifier	Component	Type
B101	Boiler Production Line 1	Emissions Unit
P101	Diesel	Emissions Process
RP1	Release Point Building 1	Release Point
RP2	Building 1	Release Point

Paths Associated with this Control

Path Identifier	Path Description
2	Path 2: B101 > P101 > Control 2 > Control 3 > RP1 & RP2

Control Device Pollutants

Pollutant Name	Code	CAS ID	% Reduction Efficiency	
PM10 Filterable	PM10-FIL		93	
PM2.5 Filterable	PM25-FIL		93	
Sulfur Dioxide	SO2	7446-09-5	90	

- **Control device assignment:** The Control Device Assignment box will show the components that are related to the control. For example, it will show the release point, emission unit, and emission process that are used by the control. You cannot do edits on this list in this screen. Instead, you may associate the control with these components through the Control Paths page (see Section 4.2.5).
- **Paths associated with this control:** The path(s) that contain this control are also listed on the control device's page. These are also not editable from this screen. You must go to the Control Paths link on the left-hand side menu on your screen to edit paths (see Section 4.2.5).
- **To delete a control device,** if you find you have started to enter a new control in error, you can click "Cancel" to avoid saving the changes, and you will be returned to the "Control Devices" page. Please do not delete a control device if it was reported in a previous year. Instead, mark it as temporarily or permanently shut down to avoid having it remain idle in your facility inventory.
- **Important additional considerations about control devices:**
 - **Finding individual control equipment information:** Resources to find out information about your control release point apportionment (previously control capture efficiency) and control efficiency can include vendor specifications, and trade associations that may be able to provide you with averages for the industry. However, you should consult your SLT staff with your questions about controls and your planned approach to make sure they approve of it before you have submitted the data.

- **Use of the control efficiency percentage:** Note that the overall percent controlled, as described in Section 4.3.2.2, will be the value factored into the emissions calculations when the calculation method calls for its application. For example, the overall control % will not be applied to your calculations if you are reporting stack test data.
- **New but inactive control devices:** As with other sub-facility components, please do not create a new control device in your report, and then mark it as temporarily or permanently shut down. If you have a new control device that will report emissions in a future year, add it in that future year report.
- **Choosing IDs:** If your SLT allows it, the reporter can choose the ID for the control equipment. There is a requirement that no two control devices be labeled with the exact same ID. You should choose ID's that you will not find confusing to use in future. Consult your SLT on any rules the SLT may have regarding IDs. For example, the SLT may want your control device to be labelled by a specific naming convention. Once an ID has been assigned to a control device, it cannot be changed. To change that ID, you will have to delete the device and create another one with the desired ID instead.
- **Relabeling pitfall:** If you simply relabel control devices with new IDs in the bulk upload template, this will create new control devices with the new ID's. Upon upload, CAERS will keep the controls with the previous ID's and add the new ones, effectively duplicating the controls in your facility. Therefore, you should mark the controls labelled with the old ID's as "Permanently Shutdown". Your efforts in this regard will help us keep your facility inventory up to date. Consult your SLT before attempting to use new ID's, as they may have specific guidelines they'd like you to follow.

4.2.5 Control Paths Page

To report control devices, these must be associated with specific paths. Appendix A in this document explains the concepts surrounding controls and control paths. You should familiarize yourself with that section before proceeding to set up your facility's control paths.

By clicking on the left-hand side menu, click on "Control Paths" under the "Facility Inventory" heading. You will reach the control paths page (Figure 4-23), where you will be able to see a list of control paths associated with that facility. If the first time you are reporting paths, you will not see any paths displayed, and you will be creating paths and populating that list from this screen.

- **To add a new control path,** click on the "+" sign. This will take you to a blank path page (Figure 4-24). You will be asked to enter a Path ID, which should be unique within the facility, and a brief description to help identify which path it is. Click "Save" and this will take you back to the Control Paths page. Now your new path will appear on the list of existing paths, and you will be able to edit it.
- **To edit a control path,** click on its ID from the "Control Paths" page and you will be taken to that path's information page (Figure 4-25). Click on "Edit" to edit the path information (Figure 4-26). When you are finished with your edits click "Save". This will take you back to the information page for that path. If the changes are an error, you can click "Cancel".
 - **Adding control devices to a path:** Click on the path you want to add controls to from the "Control Paths" page. This will take you to that path's information page (Figure 4-25). On the bottom right of the "Control Path Assignment" box, click on the "+" sign. This will take you to a pop-up window that will allow you to place either a control or a child path into the path you are editing (Figure 4-27). Enter the sequence number for its position in the path

with respect to other controls. For example, if it is the second control device in the path you will enter 2.

Next, enter either a control device or a control path (you must select one or the other, but not attempt to enter both a control and a path here). Drop-down menus will allow you to select either an existing control device or an existing path. Note that you must enter the controls first, so they will appear in the corresponding menu. You must build child paths first, then create parent paths that will contain child paths.

Figure 4-23. Control Paths Page

The screenshot shows the 'Control Paths' page. On the left is a sidebar menu with the following items: Agency ID: 999999999, Facility Inc., 123 Main Street, Camptown, ME 04999, 2023 Emissions Report, Agency: MEDEP, Report Summary, Report History, Annual Report Quality Checks, Report Creation Log, Data Bulk Entry, Facility Inventory (expanded), Emissions Units, Release Points, Control Devices, Control Paths (selected), Emissions Inventory (expanded), A012, B101, B102, B201, B301. The main content area has a progress bar at the top with four steps: Report Facility & Emissions Information (active), Perform Quality Checks, Submit to SLT Authority, and Received by SLT Authority. Below the progress bar is a section titled 'Control Paths' containing a table with three rows of existing paths.

Path Id	Path Description	
1	Path 1: B301 > P301 > Control 1 > RP 1 & RP2	
2	Path 2: B101 > P101 > Control 2 > Control 3 > RP1 & RP2	
3	Path 3: B201 > P 201 > Control 4 & Control 5 > RP3 & RP4	

Figure 4-24. Adding a New Path

The screenshot shows the 'Adding a New Path' form. The sidebar menu is identical to Figure 4-23. The main content area has the same progress bar. Below it is a section titled 'Control Path Information' with two input fields: 'Path ID: *' (containing '123') and 'Percent Path Effectiveness:' (empty). Below these is a larger text area for 'Path Description:'. At the bottom right are 'Cancel' and 'Save' buttons.

Figure 4-25. Example of a Page for a Control Path

Agency ID: 9999999999
 Facility Inc.
 123 Main Street
 Camptown, ME 04999
 2023 Emissions Report
 Agency: MEDEP

Report Summary

Report History

Annual Report Quality Checks

Report Creation Log

Data Bulk Entry

▼Facility Inventory

Facility Information

Emissions Units

Release Points

Control Devices

Control Paths

▼Emissions Inventory

A012

▶ B101

▶ B102

▶ B201

▶ B301

Report Facility & Emissions Information

Perform Quality Checks

Submit to SLT Authority

Received by SLT Authority

Control Path Information

Path ID: 1

Percent Path Effectiveness: 98

Path Description: Path 1: B301 > P301 > Control 1 > RP 1 & RP2

Control Path Assignment

Sequence Number	Assignment	% Apportionment		
1	1	100		
				+

Control Path Pollutants

Pollutant Name	Code	CAS ID	% Reduction Efficiency		
Volatile Organic Compounds	VOC		96		
					+

Figure 4-26. Editing a Path

Agency ID: 9999999999
 Facility Inc.
 123 Main Street
 Camptown, ME 04999
 2023 Emissions Report
 Agency: MEDEP

Report Summary

Report History

Annual Report Quality Checks

Report Creation Log

Data Bulk Entry

▼Facility Inventory

Facility Information

Emissions Units

Release Points

Control Devices

Control Paths

▼Emissions Inventory

A012

▶ B101

▶ B102

▶ B201

▶ B301

Report Facility & Emissions Information

Perform Quality Checks

Submit to SLT Authority

Received by SLT Authority

Control Path Information

Path ID: 1

Percent Path Effectiveness: 98

Path Description: Path 1: B301 > P301 > Control 1 > RP 1 & RP2

Cancel Save

Control Path Assignment

Sequence Number	Assignment	% Apportionment		
1	1	100		
				+

Control Path Pollutants

Pollutant Name	Code	CAS ID	% Reduction Efficiency		
Volatile Organic Compounds	VOC		96		
					+

Figure 4-27. Adding a Path Assignment

Control Path Assignment

Enter the Sequence Number*

You must select either a Control or a Control Path*

Control: 1 Control Path:

% Path Apportionment (of Control or Sub-Path)*: 100

Save Cancel

Path ID: Effectiveness:

Path Description: Path 1: B301 > P301 > Control 1 > RP 1 & RP2

Sequence Number	Assignment	% Apportionment
1	1	100

Pollutant Name	Code	CAS ID	% Reduction Efficiency
Volatile Organic Compounds	VOC	96	

Enter the control apportionment percentage. For example, if the control device or path you have selected will be first in the sequence and will be receiving 100% of the emissions from the emissions process, you would enter 100. If a control receives all emissions from the previous control device or path in the sequence, enter 100. If the control will be receiving 50% of the emissions from the previous control or path in the sequence, enter 50, for example. Click “Save” to go back to that path’s screen. Your assignment should appear in the list of assignments.

Here is an example of how data would be entered for a facility with complex controls (also see the example facility in Appendix A, Section A. 4). For the example facility, controls are configured as shown in Figure 4-28. Additionally, Control Device 1 sends 60% of its emissions to Path 1 and 40% of its emissions to Control Device 3. Controls 2 and 4 are configured in sequence and would be added to Path 1 from Path 1’s screen as shown in Table 4-1. In Path 2, Path 1 and Control 3 run in parallel and thus, have the same sequence number. Path 2 would include the following as shown in Table 4-2 where Path 1 and Control 3 have been highlighted.

Figure 4-28. Example of a Facility with Complex Controls

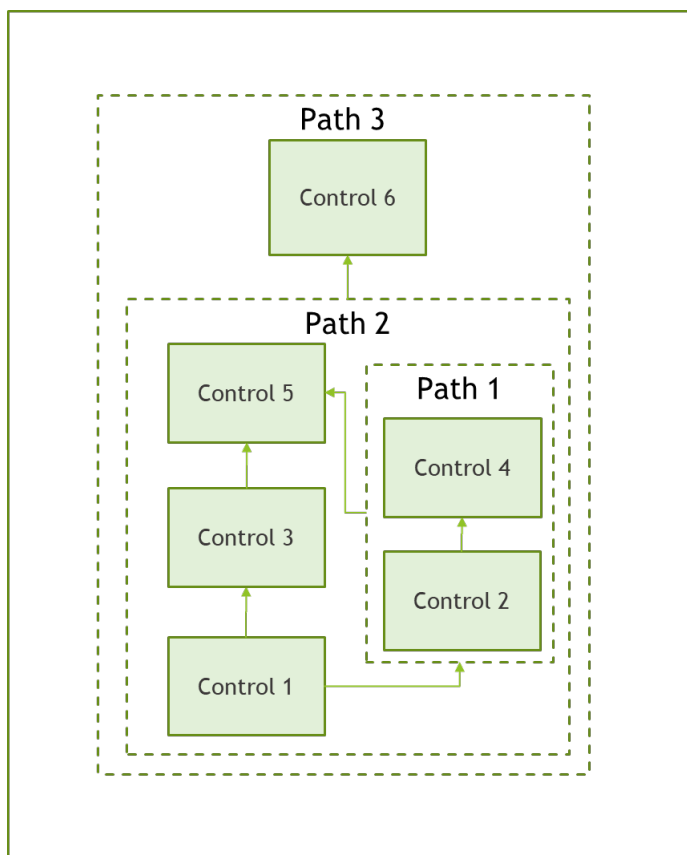


Table 4-1. Example of Data Entry for Controls in Sequence for Path 1

Control or Control Path	Sequence Number	% Apportionment
Control 2	1	100
Control 4	2	100

Table 4-2. Example of Data Entry for an Assignment including a Control and a Path Running in Parallel for Path 2

Control or Control Path	Sequence Number	% Apportionment
Control 1	1	100
Path 1	2	60
Control 3	2	40
Control 5	3	100

- **To associate the control path to one or more processes and release points**, select the relevant unit from the “Emissions Inventory” menu on the left-hand side or from the list in the “Emissions Unit” page under “Facility Inventory”. Then, choose the relevant process for that unit that you want to associate and follow the instructions in Section 4.3.2 on how to associate release points with processes.
- **Important additional considerations about control paths:**

- **Relationship between control devices, children, parent, and main path:** It is important to remember that a path can include one or more controls as well as another path. While there may be many child paths within parent paths, there should always be one main path between each process, and the controls between it and its release point(s). As you create paths, keep in mind that while one path may contain other paths, ultimately, you will want to ensure that you've created a main path that includes all controls leading from any process to a release point. Each relationship between an emissions process and a release point (i.e., the release point apportionment) can only be associated with one control path. All processes from a unit to a release point can share the same path.
- **Choosing IDs:** If your SLT allows it, the reporter can choose the ID for the control path. There is a requirement that no two control paths be labeled with the exact same ID for your facility. You should choose ID's that you will not find confusing to use in future. Consult your SLT on any naming conventions they may require you to use to label control paths. Once an ID has been assigned to a path, it cannot be changed. To change that ID, you will have to delete the path and create another one with the desired ID instead.
- **Relabeling pitfall:** As with other sub-facility components (release points, units, processes), you may relabel paths in the template but you will have to remove the previous paths from the UI to avoid creating duplicate paths in your report.
- **Avoid idle paths:** Empty paths add unnecessary data to your report. You are encouraged to create only paths that contain controls in them and avoid creating empty paths.

4.3 Emissions inventory

The left-hand side menu of the application shows a list of units for the facility under "Emissions Inventory". You can click on the arrow to the left of the Unit ID to show a list of processes associated with that unit. Click on any one of those units or processes to show that unit's information.

4.3.1 Units

Click on the unit you are interested in. This will take you to that unit's information page. Click on the "Edit" button at the top right of the screen to make changes to the emissions unit information. For more information on adding or editing a unit, see Section 4.2.2.

4.3.2 Processes

From the left-hand side menu, click on the relevant unit. Once you are in that unit's information page, you will be able to add or edit a process.

- **To add a process,** click on the "+" at the bottom of the list of processes in the "Processes Associated with this Emissions Unit" box. This will take you to a process page (Figure 4-29) where you can enter all relevant information for that process. Drop-down menus will assist you in selecting some data fields. Error messages will appear for items that have been entered incorrectly or for missing fields that are required.

Figure 4-29. Adding a New Process

Agency ID: 999999999
Facility Inc.
123 Main Street
Camptown, ME 04999
2023 Emissions Report
Agency: MEDEP

Report Summary
Report History
Annual Report Quality Checks
Report Creation Log
Data Bulk Entry
▼ Facility Inventory
Facility Information
Emissions Units
Release Points
Control Devices
Control Paths
▼ Emissions Inventory
A012
▶ B101
▶ B102
▶ B201
▶ B301

Report Facility & Emissions Information | Perform Quality Checks | Submit to SLT Authority | Received by SLT Authority

Process Information

Unit ID: B102

Process ID:

Process Description:

SCC: [Search for Source Classification Code](#)

SCC Description:

Operating Status:

Year Op Status Changed:

Comments:

Operating Details

Avg. Days per Week:

Avg. Hours per Day:

Summer Operating Percent:

Spring Operating Percent:

Hours per Reporting Period:

Avg. Weeks per Reporting Period:

Winter Operating Percent:

Fall Operating Percent:

Reporting Period

Reporting Period:

Throughput Material:

Fuel Material:

Operating Type:

Throughput Value:

Fuel Value:

Heat Content Ratio:

Throughput Parameter:

Throughput UoM:

Fuel UoM:

Heat Content Ratio Numerator:

Heat Content Ratio Denominator:

[Copy Fuel Data to Throughput Data Fields](#)

Note that your process Source Classification Code (SCC) can be found via search. Click on the “Search for SCC Code” button and enter a search term (for example, boiler). The search will be performed and return a list of options for you to choose from. Click on the SCC you want to use. Note that the SCC Level descriptions for that code will pre-populate in the SCC Description box. You may also enter an SCC if you already know it (for example, 10100201). See Figure 4-30.

CAERS will crosscheck that the code you are entering is a valid point source code and is a code that has not been retired before the inventory year you are reporting. A warning will be displayed if the selected SCC is being retired the year of your report, or in the future, but you will still be able to use that code. However, if the SCC you select was retired before the year of your report, you will see a critical error. If you want to see the full list of codes or perform different searches, go to the [SCC search page](#).

Figure 4-30. SCC Search

Select a Source Classification Code

Search for an SCC Code by any of the SCC Levels: 1, 2, 3, or 4, Text, Code Number, Short Name, or Description. You can do a more extensive search at: <https://sor-scc-api.epa.gov/sccweb/services/sccsearch/>

engine Search

SCC Code	Description	Sector
20100101	Internal Combustion Engines > Electric Generation > Distillate Oil (Diesel) > Turbine	Fuel Comb - Electric Generation - Oil
20100102	Internal Combustion Engines > Electric Generation > Distillate Oil (Diesel) > Reciprocating	Fuel Comb - Electric Generation - Oil
20100105	Internal Combustion Engines > Electric Generation > Distillate Oil (Diesel) > Reciprocating: Crankcase Blowby	Fuel Comb - Electric Generation - Oil
20100106	Internal Combustion Engines > Electric Generation > Distillate Oil (Diesel) > Reciprocating: Evaporative Losses (Fuel Storage and Delivery System)	Fuel Comb - Electric Generation - Oil
20100107	Internal Combustion Engines > Electric Generation > Distillate Oil (Diesel) > Reciprocating: Exhaust	Fuel Comb - Electric Generation - Oil
20100108	Internal Combustion Engines > Electric Generation > Distillate Oil (Diesel) > Turbine: Evaporative Losses (Fuel Storage and Delivery System)	Fuel Comb - Electric Generation - Oil
20100109	Internal Combustion Engines > Electric Generation > Distillate Oil (Diesel) > Turbine: Exhaust	Fuel Comb - Electric Generation - Oil
20100201	Internal Combustion Engines > Electric Generation > Natural Gas > Turbine	Fuel Comb - Electric Generation - Natural Gas
20100202	Internal Combustion Engines > Electric Generation > Natural Gas > Reciprocating	Fuel Comb - Electric Generation - Natural Gas
20100205	Internal Combustion Engines > Electric Generation > Natural Gas > Reciprocating: Crankcase Blowby	Fuel Comb - Electric Generation - Natural Gas
20100206	Internal Combustion Engines > Electric Generation > Natural Gas > Reciprocating: Evaporative Losses (Fuel Delivery System)	Fuel Comb - Electric Generation - Natural Gas
20100207	Internal Combustion Engines > Electric Generation > Natural Gas > Reciprocating: Exhaust	Fuel Comb - Electric Generation - Natural Gas
20100208	Internal Combustion Engines > Electric Generation > Natural Gas > Turbine: Evaporative Losses (Fuel Delivery System)	Fuel Comb - Electric Generation - Natural Gas
20100209	Internal Combustion Engines > Electric Generation > Natural Gas > Turbine: Exhaust	Fuel Comb - Electric Generation - Natural Gas
20100301	Internal Combustion Engines > Electric Generation > Gasified Coal > Turbine	Fuel Comb - Electric Generation - Other

Cancel

Once you add a process, it will appear in the list of processes associated with that unit on the unit's information page.

- To edit a process**, from the unit's information page, you can also edit a process. Click on the process you want to edit. This will take you to a page with all the information about that process (Figure 4-31). Click on the "Edit" button at the top right of the screen to make changes to the process information (Figure 4-32). You can edit operating details and reporting period information by clicking "Edit" in each of those boxes. Note that this version of CAERS is for annual reporting only. Future versions of the system will offer more reporting periods. Click "Save" when your edits are finished. Click "Cancel" if you find your edits are an error and wish to discard them.
 - Editing throughput:** When throughput for a process is changed, CAERS will automatically calculate the emissions for all pollutants associated with the process, where this is possible depending on the calculation method selected for each pollutant. A message in a green box will appear at the top right of the screen indicating that calculations were successful. If a calculation is not possible, an orange or red box will appear with an error message indicating the problem encountered with the calculation.
 - Entering fuel data:** Certain fuel-based processes must be reported by using the fuel material listed in the description. You will be asked to enter the fuel (e.g., diesel, natural gas, anthracite) as per the fuel listed for the process SCC, the amount of fuel used (value), and that fuel's heat content, together with units of measure. Because it is highly likely that the fuel material you report will be the same as the throughput material you would have reported, you can enter the fuel and then copy it as the throughput material for that process. To do so, click on "Copy Fuel Data to Throughput Data Fields". Check that the fuel

type and units of measure match the fuel listed in the SCC. For example, SCC 10200101 has the following description: External Combustion, Industrial: Boilers, Anthracite Coal, Pulverized Coal. The fuel reported would be “Anthracite”, and it is likely that you would have listed the throughput material for this SCC as “Anthracite” so you can simply click to copy it in. Consult your SLT on the heat content values you should use in your report. If your SLT allows you to use the CAERS defaults, refer to Appendix C, Section C.1 for default heat content values. CAERS will prepopulate these default heat content values if the units of measure the user enter match up exactly to those as listed in the default heat content list.

Please note that in some instances a process may require not just a material throughput but also a fuel, in this case, it is recommended that an “in process fuel use” SCC be used to add the relevant pollutants that are emitted exclusively from the use of the fuel in that process.” For example, for certain types of incineration, the SLT may require the user to report not just the material that is being burned, but also the fuel being used. Use the SCC search in the UI to find an “in process fuel use” SCC that matches the fuel you need to report.

- **Entering alternative throughput:** Under certain conditions, CAERS allows the user to enter alternative throughput for the same process.
 - **For different pollutants:** This is particularly the case when an SCC calls for a specific material fuel to be used, but you need to use different emission factors to estimate different pollutants, and these require a different material to be used in the calculation (e.g. output of the process rather than the amounts of fuel used in the process). CAERS will create a copy of your original process when you click on the “Add Alternative Throughput for this Process” button at the top of the screen for that process. A pop-up window will appear, asking if you are sure this is what you want to do. If you accept, you will be taken to a new screen where all your process data has been prepopulated for you except for the process ID, throughput data fields, and emissions. From there, you can enter a new ID, your alternative throughput data, and list the pollutants for which you’ll be using this throughput to calculate emissions. For example: a user creates alternative throughput process (P102-1) from a process P102, even though they have the same SCC, because the user estimates PM10 and NOx for process P102, and estimates SO2 and CO using a different throughput for P102-1.
 - **For the same pollutants:** Typically, if the reporter were to attempt to enter different throughputs for the same SCC to estimate the same pollutants for the same process or via an alternative throughput (e.g. PM2.5 for both processes), CAERS will respond with a critical error. For example: **Emissions Unit: B201 - There is more than one process for this Emissions Unit using SCC 30200810. If this is a duplicate process for an Alternative Throughput, then PM2.5 Primary (Filt + Cond) may only be reported once as a pollutant for these Processes.** However, a user may create an alternative throughput process for the same process via the alternative throughput function for certain “not elsewhere classified” SCCs. For example, with SCC 30299998 Industrial Processes > Food and Agriculture > Other Not Specified > Other Not Classified, the user may estimate PM10 PRI for *both* processes B202 and B202-1.

Facility Inc.
123 Main Street
Camptown, ME 04999
2023 Emissions Report
Agency: MEDEP

Report Summary

Report History

Annual Report Quality Checks

Report Creation Log

Data Bulk Entry

▼ Facility Inventory

- Facility Information
- Emissions Units
- Release Points
- Control Devices
- Control Paths

▼ Emissions Inventory

- A012
- ▶ B101
- ▶ B102
- ▶ B201
- ▶ B301

[Add Alternative Throughput for this Process](#)

Process Information			
Unit ID:	B102	Process Description:	Waste Oil Boiler
Process ID:	P102	Year Op Status Changed:	2022
Operating Status:	Operating	SCC Description:	External Combustion Boilers > Electric Generation > Liquid Waste > Waste Oil
SCC:	10101302		
Comments:			

Operating Details			
Avg. Days per Week:	5	Hours per Reporting Period:	2000
Avg. Hours per Day:	8	Winter Operating Percent:	25
Avg. Weeks per Reporting Period:	50	Spring Operating Percent:	25
		Summer Operating Percent:	25
		Fall Operating Percent:	25

Reporting Period			
Reporting Period:	Annual	Operating Type:	Routine
Throughput Material:	Waste Oil	Throughput Value:	50
Fuel Material:	Waste Oil	Fuel Value:	50
Heat Content Ratio:	0.00102	Heat Content Ratio Numerator:	MILLION BTUS
Throughtput Parameter:	Input	Throughput UoM:	1000 GALLONS
		Fuel UoM:	1000 GALLONS
		Heat Content Ratio Denominator:	1000 GALLONS
Comments:			

Emissions Associated with this Process			
Pollutant Name	Code	CAS ID	
PM10 Filterable	PM10-FIL		
PM2.5 Filterable	PM25-FIL		

Release Points Associated with this Process			
Release Point	Release Type	Control Path	%
RP3	Vertical		95%
RP4	Fugitive 3-D: Center of Release Footprint Coords		5%
Total % Apportionment of Emissions			100%
<i>Note: Each process must allocate exactly 100% of its emissions to one or more release points before the report can be submitted.</i>			

Figure 4-32. Editing a Process

US EPA - CAERS Combined Air E x

cdxappstest.epacdx.net/cef-web/#/facility/2600/report/3444/process/114279

Facility Inc.
123 Main Street
Camptown, ME 04999
2023 Emissions Report
Agency: MEDEP

Report Summary
Report History
Annual Report Quality Checks
Report Creation Log
Data Bulk Entry
▼ Facility Inventory
Facility Information
Emissions Units
Release Points
Control Devices
Control Paths
▼ Emissions Inventory
A012
▶ B101
▶ B102
▶ B201
▶ B301

Add Alternative Throughput for this Process

Process Information

Unit ID: B102
 Process ID: P102
 Process Description: Waste Oil Boiler
 SCC: 10101302
 SCC Description: External Combustion Boilers > Electric Generation > Liquid Waste > Waste Oil
 Operating Status: Operating
 Year Op Status Changed: 2022
 Search for Source Classification Code
 Comments:
 Cancel Save

Operating Details

Edit

Avg. Days per Week:	5	Hours per Reporting Period:	2000	Summer Operating Percent:	25
Avg. Hours per Day:	8	Winter Operating Percent:	25	Fall Operating Percent:	25
Avg. Weeks per Reporting Period:	50	Spring Operating Percent:	25		

Reporting Period

Edit

Reporting Period:	Annual	Operating Type:	Routine	Throughput Parameter:	Input
Throughput Material:	Waste Oil	Throughput Value:	50	Throughput UoM:	1000 GALLONS
Fuel Material:	Waste Oil	Fuel Value:	50	Fuel UoM:	1000 GALLONS
Heat Content Ratio:	0.00102	Heat Content Ratio Numerator:	MILLION BTUS	Heat Content Ratio Denominator:	1000 GALLONS

Comments:

Emissions Associated with this Process

Pollutant Name	Code	CAS ID
----------------	------	--------

Release Points Associated with this Process

Release Point	Release Type	Control Path	%
---------------	--------------	--------------	---

- **To delete a process**, from a unit's page, you should only delete a process using the garbage can icon if you added it to this year's report and that addition was an error. If the process existed in a previous year's report, and is no longer in use, you can click on its ID and change its status from "Operating" to "Permanently Shutdown". Once you have done so, the data on the operating details and reporting period for that process will be hidden from view. However, the "Release Point Apportionment" and "Controls Associated with this Process" will remain.
- **Other items in the process page:** In this page you will also see pollutants, release points, and controls associated with the process.
 - **To add a release point to a process**, see Section 4.3.2.1. Associated control paths and controls will appear once the process has been associated to the release point as described in Section 4.3.2.1.
 - **To add pollutants to a process**, see Section 4.3.2.2.
 - **To add controls**, see Section 4.2.4.
- **Important additional considerations about processes:**
 - **New but inactive processes:** As with other sub-facility components, please do not create a new process in your report, and then mark it as temporarily or permanently shut down. If you have a new process that will report emissions in a future year, add it in that future year report.
 - **Choosing IDs:** If your SLT allows it, the reporter can choose the ID for the process. There is a requirement that no two processes for the same unit be labeled with the exact same ID.

You should choose ID's that you will not find confusing to use in future. Consult your SLT on any naming conventions they may require you to use to label processes. Once an ID has been assigned to a process, it cannot be changed. To change that ID, you will have to delete the process and create another one with the desired ID instead.

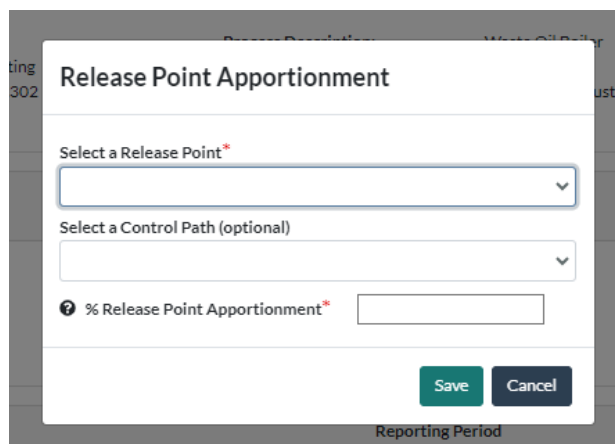
- **Relabeling pitfall:** If you simply relabel processes with new IDs in the bulk upload template, this will create new processes with the new ID's. Upon upload, CAERS will keep the processes with the previous ID's and add the new ones, effectively duplicating the processes in your facility. Therefore, you should mark the processes labelled with the old ID's as "Permanently Shutdown". Your efforts in this regard will help us keep your facility inventory up to date. Consult your SLT before attempting to use new ID's, as they may have specific guidelines they'd like you to follow.
- **Caution with processes for alternative throughput:** When using the alternative throughput option, the system will recognize that the new throughput is in a copy of an existing process. Be careful not to alter the process copy, or the system may interpret it as a different process and flag it for any relevant errors. Additionally, if the copy process is altered, and it is for an SCC where fuel is required, the system will require you to enter fuel use for that process again, and fuel use will be double counted. Similarly, a process copy should only list the pollutants that are using the alternative throughput, otherwise, emission from pollutants may be compounded.

4.3.2.1 Associating a Process to a Release Point

Go to the process information page (Figure 4-31). You can get there by clicking on the corresponding unit from the left-hand side menu, and then clicking on the relevant process ID. First, in the "Release Points Associated with this Process" box, click on the "+" sign to add a release point associated with the current process. A pop-up window will appear requesting information about the release point, and the percentage of the process' emissions being directed to that release point (Figure 4-33). If there are no controls between the process and a release point, you do not have to enter a control path. You will simply apportion the corresponding emissions to the release point.

If there are controls to associate the control path to one or more processes and release points, you should associate them here. Note that the control and path assignments should have been defined before attempting this step (Sections 4.2.4 and 4.2.5). This will allow you to select from existing release points, and control paths. All emissions from the process must be apportioned to a release point so that 100% of total emissions have been assigned to one or more release points.

Figure 4-33. Release Point Apportionment



After entering the relevant information, click “Save”. Now you will be able to see, in the “Controls Associated with this Process” box at the bottom left of the screen, the path you have associated with the release point and process.

You will not be able to edit the controls associated with the process from this page. If you need to edit the controls and/or paths, you must ensure you have entered the relevant control devices and their paths as in the steps described above, and that you have associated them to the relevant process.

4.3.2.2 Entering and Calculating Emissions

In the page for that process, go to the “Emissions Associated with this Process” box in the lower left side of the screen (Figure 4-32). Click the “+” sign to add emissions. This will take you to a new pollutant page (Figure 4-34). In the “Pollutant” data field start typing in the name, code, or CAS number. The form will assist in finding the name of the pollutant. Once you have found the pollutant you are looking for, select it. The form will then prepopulate the other pollutant data fields: Pollutant Code, Pollutant Name, and CAS ID if it exists. For example, typing in sulfur will render Sulfur Hexafluoride – SF₆, and Sulfur Dioxide – SO₂-9-5-7446. Note that some pollutants, such as Volatile Organic Compounds (VOC) do not have a CAS number because they are groups of pollutants, as opposed to individual pollutants. You will still be able to select such pollutants even if the CAS number field appears blank.

EPA augments triannual reports to reflect Hazardous Air Pollutants (HAPs). Alternatively, if you wish to reflect your own HAP calculations instead of EPA’s, you will be able to do so by entering your own HAP data when entering pollutant emissions (see Section 4.3.2.2). You are encouraged to provide HAP information even if your SLT does not require it, to avoid EPA having to estimate that information, which may not be as accurate as your own information.

Note that for any estimation method that does not involve an emission factor and thus, does not occupy the CAERS calculator, you will be required to enter a comment and provide an attachment. Only one attachment is required for your entire report, but it should contain an explanation of each of the situations where a factor was not used. Check with your SLT staff to ensure you provide them with the information they require before creating the attachment and submitting it with your report, and in the correct format they require. Your SLT may require, specifically, that your attachment be an excel file showing all the data used in your calculations so that the SLT staff person can replicate your estimates. If you do not provide all the relevant information, your SLT may return your report to you.

Figure 4-34. Adding a New Pollutant

My Facilities > Emissions Reports > 2023 Emissions Report

Agency ID: 999999999
Facility Inc.
123 Main Street
Campdown, ME 04999
2023 Emissions Report
Agency: MEDEP

Report Summary
Report History
Annual Report Quality Checks
Report Creation Log
Data Bulk Entry

▼ Facility Inventory
Facility Information
Emissions Units
Release Points
Control Devices
Control Paths

▼ Emissions Inventory
A012
▶ B101
▶ B102
▶ B201
▶ B301

Report Facility & Emissions Information Perform Quality Checks Submit to SLT Authority Received by SLT Authority

Process Information

Unit ID:	B102	Reporting Period:	Annual	Operating Status:	Operating
Process ID:	P102	Throughput Value:	50	Throughput UoM:	1000 GALLONS
Throughput Material:	Waste Oil	Fuel Material:	Waste Oil	Fuel UoM:	1000 GALLONS
Throughput Parameter:	Input	Heat Content Ratio Numerator:	MILLION BTUS	Heat Content Ratio Denominator:	1000 GALLONS
Fuel Material:	Waste Oil	Fuel Value:	50		
Heat Content Ratio:	0.00102				

Emission Information

① Pollutant: * Carbon
Carbon Dioxide - CO2
Carbon Disulfide - 75150 - 75-15-0
Carbon Monoxide - CO - 630-08-0
Carbon Tetrachloride - 56235 - 56-23-5
Carbonyl Sulfide - 463581 - 463-58-1
Hydrofluorocarbons - HFC
Perfluorocarbons - PFC

② Pollutant Code:

③ CAS ID:

④ Calculation Method: *

⑤ Emission Factor: *

⑥ Emission Factor Description: *

⑦ Emission Factor Condition:

⑧ Emission Factor Source:

⑨ Emission Factor Numerator UoM: *

⑩ Emission Factor Denominator UoM: *

⑪ Overall Control %:

⑫ Total Emissions: *

⑬ Emissions UoM: *

☐ I prefer to calculate the total emissions of this pollutant.

Comments:

Next, select calculation method from the drop-down menu (Figure 4-35). The form will require the user to enter specific data fields according to the calculation method selected.

- **Using emission factors:** There are multiple options in CAERS for using emission factors.
 - If you have selected a U.S. EPA Emission Factor, the form will allow you to search for an emission factor by clicking on the corresponding box under the calculation method. EPA emission factors in CAERS can also be searched in US EPA's [WebFIRE](#) and for EPA greenhouse gas emission factors you may refer to the [Greenhouse Gas Reporting Program factors](#). Note a few important items:
 - The list of EPA emission factors in CAERS will display, but not allow you to use emission factors listed in WebFIRE as having quality "U" or if they are revoked.
 - For an EPA Emission Factor to be used in CAERS, the SCC, pollutant and units of measure listed for the emission factor must match with the throughput units of measure and pollutant you are reporting exactly. CAERS may convert the total emissions and do simple unit conversions between the same type of unit of measure (weight/mass, liquids, etc.). For example, you may not be able to use a factor in tons/gallon when your throughput is in hours, but you may use a factor that is in lbs/ton, and then convert your total emissions to tons from lbs.
 - You may not be able to use an emission factor if the SCC listed for that factor has been retired. If you and your SLT, in consultation with EPA, determine that an EPA factor from a retired SCC is still valid and can be used for a process, you should

select “Other Emission Factor” as your calculation method and enter it there. We encourage you to discuss this with your SLT staff *before* you enter the data to your report to avoid having the report sent back to you for corrections.

- Some emission factors have been updated by EPA, and you may get an error message requiring you to review your existing factor or select a new one when you start your new report. If you feel there are errors in an emission factor listed in CAERS, please reach out to your SLT. For EPA factors, the system will flag a factor from your previous year report, or upon bulk upload, if it doesn’t recognize the factor you have used as an EPA factor. If that is the case, you should search and select the correct factor or select another calculation method.
- For landfill emissions, WebFIRE emission factors do not carry into CAERS as the use of their formulas involves additional calculations. You can refer to the [LandGEM](#) tool to perform those calculations. Your SLT may require supplemental documentation showing those calculations so you should reach out to them for any requirements they may have.
- “S/L/T Emission Factor” may be used as well by entering an SLT specific and SLT approved emission factor for your process. CAERS will prepopulate SLT factors from other states if your SLT allows you to use them, you can select your factor from there or enter it yourself. You should discuss the factor you intend to use if selecting this option with your SLT to ensure it is appropriate for use with your process.

Figure 4-35. Selecting a Calculation Method

The screenshot displays the CAERS 2023 Emissions Report interface. The top navigation bar includes links for 'My Facilities', 'Emissions Reports', and '2023 Emissions Report'. A progress bar at the top indicates the current step: 'Report Facility & Emissions Information'.

Process Information

Unit ID:	B102	Reporting Period:	Annual	Operating Status:	Operating
Process ID:	P102	Throughput Value:	50	Throughput UoM:	1000 GALLONS
Throughput Material:	Waste Oil	Fuel Value:	50	Fuel UoM:	1000 GALLONS
Throughput Parameter:	Input	Heat Content Ratio Numerator:	MILLION BTUS	Heat Content Ratio Denominator:	1000 GALLONS
Fuel Material:	Waste Oil				
Heat Content Ratio:	0.00102				

Emission Information

Pollutant: PM2.5 Filterable - PM25-FIL

Pollutant Code: PM25-FIL

Pollutant Name: PM2.5 Filterable

CAS ID:

Calculation Method: USEPA Emission Factor (no Control Efficiency used)

Emission Factor: Continuous Emission Monitoring System
Emission Factor based on data available peer reviewed literature
Emission Factor based on Fire Emission Production Simulator (FEPS)
Emission Factor based on Regional Testing Program
Engineering Judgment
Manufacturer Specification
Material Balance
Other Emission Factor (no Control Efficiency used)
Other Emission Factor (pre-control) plus Control Efficiency
S/L/T Emission Factor (no Control Efficiency used)
S/L/T Emission Factor (pre-control) plus Control Efficiency
S/L/T Speciation Profile
Site-Specific Emission Factor (no Control Efficiency used)
Site-Specific Emission Factor (pre-control) plus Control Efficiency
Stack Test (no Control Efficiency used)
Stack Test (pre-control) plus Control Efficiency
Trade Group Emission Factor (no Control Efficiency used)
Trade Group Emission Factor (pre-control) plus Control Efficiency
USEPA Emission Factor (no Control Efficiency used)

Emission Factor Description:

Emission Factor Applicability:

Emission Factor Condition:

FA - Fuel ash content:

Emission Factor Numerator UoM:

- **Formulas:** Note that some factor searches will return formulas. CAERS will require the user to supply additional parameters for that formula. For example, sulfur content %. If the emission factor units of measure (UoM) are different from the throughput UoM's, CAERS will return an error. However, CAERS will perform a simple conversion for units of the same kind (for example, weight UoM conversions from lbs to tons). See Appendix B for more information on conversions in CAERS. After entering all required fields, click on "Calculate Emissions" and CAERS will calculate the emissions for you. A green confirmation message at the top right of your screen will appear to indicate the calculations have been performed. Click "Save" to be taken back to the emission unit information page.
- **EPA Factors requiring additional explanation:** If you have selected an EPA emission factor because one exists but its use is not straightforward you can check the box "I prefer to calculate the total emissions of this pollutant" located under the Emissions UoM box, and the calculator will disengage. Not some of SLTs do not allow you to use this feature so you should check with them before you attempt to use this feature. If you disengage the calculator, you must enter a description of your calculation process in "Description of Calculation" box and add the explanation in the attachment to justify the use of an alternative emission factor or total emissions you calculated (Figure 4-36).
- **Controls:** If controls are present (associated with this process via a path), you have the option to enter the overall control efficiency for the path in the "Overall Control %" box so that CAERS will calculate the post-controls emissions for you. For a single control this is equal to the multiplication of: (percent capture) x (percent effectiveness) x (percent efficiency). Note that this will happen if you are using a pre-control emission factor only. For more than one control (including control paths) it is the total percent of the pollutant that is removed by the controls (or control paths). You should reach out to your SLT if you have questions about how to calculate this value for your specific control device configuration. For a numerical example on controls and how the different percentages are used to calculate emissions, see Appendix A, Section A.6.

Figure 4-36. Using EPA Emission Factor Alternative

The screenshot shows a web-based form for entering EPA Emission Factor data. The form is organized into several sections with labels and input fields. The top section includes 'Emission Factor' (0.3), 'Emission Factor Notes' (a dropdown menu with 'Multiply the emission factor provided by the weight'), 'Emission Factor Description' (a text area with 'EPA. October, 1996. Section 1.11, Waste Oil Combustion. In: Compilation of Air Pollutant Emiss...'), 'Emission Factor Applicability' (a text area), 'Emission Factor Derivation' (a text area), 'Emission Factor Condition' (a text area), 'Emission Factor Source' (a dropdown menu with 'WebFIRE FACTORID 8047'), 'FA - Fuel ash content' (25), 'Emission Factor Numerator UoM' (LB), and 'Emission Factor Denominator UoM' (E3GAL). Below this is a section for 'Overall Control %' (empty), 'Total Emissions' (3800), and 'Emissions UoM' (LB). A checkbox 'I prefer to calculate the total emissions of this pollutant.' is checked. The 'Description of Calculation' text area contains the text 'Currently the EPA factor is unusable for my report because'. The 'Comments' text area is empty. At the bottom right are 'Cancel' and 'Save' buttons.

Emission Factor:	0.3	Emission Factor Notes:	Multiply the emission factor provided by the weight
Emission Factor Description:	EPA. October, 1996. Section 1.11, Waste Oil Combustion. In: Compilation of Air Pollutant Emiss...		
Emission Factor Applicability:		Emission Factor Derivation:	
Emission Factor Condition:		Emission Factor Source:	WebFIRE FACTORID 8047
FA - Fuel ash content:	25		
Emission Factor Numerator UoM:	LB	Emission Factor Denominator UoM:	E3GAL
Overall Control %:			
Total Emissions:	3800	Emissions UoM:	LB
<input checked="" type="checkbox"/> I prefer to calculate the total emissions of this pollutant.			
Description of Calculation:	Currently the EPA factor is unusable for my report because		
Comments:			

Cancel Save

5 Reporting Emissions and Facility Information Using Bulk Upload

5.1 The Bulk Upload Excel Template

If you will have relatively few changes between your previous year report and your current year report, we encourage you to use the user interface instead of bulk upload (BU) because this may save you time. If you have a variety of changes, and/or your facility is very large, BU may be the best choice for you. You should familiarize yourself with this section of the instructions before beginning any data entry. There is a special template for bulk upload in Excel format. You should use extreme care when entering data into the spreadsheet making sure you have not created an error in the template inadvertently. This section will help you avoid time consuming errors. You should also consult the checklist in Appendix D at the back of this user guide before submitting your data.

To use this feature click on “Create New Report”, and before you download your excel template we strongly encourage you to go into the user interface and ensure that all your facility data is accurate. Then, run the Quality Checks via the user interface. Doing so will alert you to any new QA checks that have come online since your previous report, and you will be able to address these errors while creating your new report. Failing to do so may result in rework of your template and more than one upload attempt. Also, if this is your first time using CAERS for reporting, we encourage you to enter a few items in the UI first to familiarize yourself with CAERS.

Click on “Download as Template”(Figure 4-2) next to the current inventory year to download your pre-populated report in the current excel template. You are encouraged to open and save the template and click on “Enable Editing” in Excel if it appears. Then save a copy of what you just downloaded to ensure

you may revert to it if needed. *You won't be able to download your previous year report and edit it in an older version of the template for upload for this year's report.*

When you open the excel template, you should see any items you edited in the UI appear in the version of the template you just downloaded. This may help you understand how data fields are related from one data tab to the next. Even if you plan to do all your work in the BU template, having the UI open to specific screens you can reference and where you can test data entry, may be extremely helpful in understanding what and how to enter data in each tab and cell. However, be advised that whatever you enter in the BU template *will override data in the UI*, except for any components that were removed or relabeled in the template and the facility data from the first tab that was not editable. Therefore, you should take care *not to attempt to enter data in the BU template and the User Interface at the same time*.

Also, tips and tools for data entry under the “important additional considerations”, that have been explained throughout the User Interface portion of this guide (Section 4) will be helpful for bulk upload. We strongly encourage you to review those sections before attempting to use the template, as this may save you time and a potential rejection of your report after you've submitted it.

The template contains several tabs (Figure 5-1). The first tab in the excel file is legal language. The second tab is an “Information” tab. This worksheet shows the version of your template, the date the version of the template was updated, some general instructions, as well as a list of recent changes from a previous version. You should make sure that you download your previous year data in the most recent version of the workbook available in CAERS. Using a workbook from a previous year report, for example, will cause errors in upload, further QA checks, and a potential rejection due to an incomplete submission further down the process. Versioning of workbooks is kept at a minimum during reporting, but updates do happen. When they do, it is recommended you upload your report with changes you have already made, and then download your report again, in the new template, to continue reporting. This helps ensure that you have an updated version of the template, which may prevent errors in future. It also helps ensure that if there is any updated reference information, you may be able to use it.

In general, the template contains two sets of tabs:

Reference tabs are highlighted in gray. These are an Information tab, Worksheet Map and lists of codes for entry of different data fields. Please do not attempt to edit these lists as they are part of the data validation for the data entry tabs. The list of tabs is as follows:

- Information Tab
- Worksheet Map (containing JSON Keys)
- Aircraft Engine Type Code (for airport SCCs only)
- Calculation Material Code
- Calculation Method Code
- Calculation Parameter Type Code
- Contact Type Code
- Control Measure Code
- Emission Factor Code
- Emission Formula Variable Code
- Emissions Operating Type Code
- Facility Category Code
- Facility Source Type Code

- FIPS County Code
- FIPS State Code
- HAP Facility Category Code
- NAICS Code
- Operating Status Code
- Pollutant
- Program System Code
- Release Point Type Code
- Reporting Period Type Code
- Source Classification Code
- Tribal Code
- Unit of Measure Code
- Unit Type Code

Data entry tabs are highlighted in blue. Each tab contains specific types of data to be submitted. Drop-down menus help you avoid errors when entering codes, by displaying the allowed choices. The data entry tabs are:

- Facility
- Facility Contacts
- NAICS
- Release Points
- Emission Units
- Emission Processes
- Controls
- Control Paths
- Control Assignments
- Control Pollutants
- Apportionment
- Reporting Period
- Operating Details
- Emissions
- Emission Formula Variables

The blue data entry worksheets have the same entities that are presented in the web application, for example: facility level data, release points, and emissions units. There are several fields that are required in the spreadsheet so that it can be used in CAERS successfully. These fields are denoted by an asterisk in the column header (row 10). Be sure to enter values or select an option from the dropdown menu in each of the required fields.

You should enter data in the order of the tabs. For example, enter release points first, enter unit information before entering any process or emissions information. This is because the blue data entry worksheets reference one another. For example, the “Emission Processes” worksheet will ask for the corresponding Unit ID for each process row. The options in the “Unit ID” dropdown menu on the “Emission Processes” worksheet are based on the units that are available on the “Emission Units” worksheet. As new units are added on the “Emission Units” worksheet, they will be automatically added to the “Unit ID” dropdown menu on the “Emission Processes” worksheet. Therefore, you need to

enter your emission units *before* they are available in the “Emission Processes” worksheet. Other instances where fields are dependent on other worksheets include:

- “Control Assignments” worksheet:
 - Path ID relies on entries from the “Control Paths” worksheet,
 - Control ID relies on entries from the “Controls” worksheet,
 - Control Path (Child) relies on entries from the “Control Paths” worksheet
- “Control Pollutants” worksheet: Control ID relies on entries from the “Controls” worksheet
- “Apportionment” worksheet:
 - Release Point ID relies on entries from the “Release Points” worksheet,
 - Process ID relies on entries from the “Emission Processes” worksheet,
 - Control Path ID relies on entries from the “Control Paths” worksheet
- “Reporting Period” worksheet: Process ID relies on entries from the “Emission Processes” worksheet
- “Operating Details” worksheet: Reporting Period relies on entries from the “Reporting Periods” worksheet
- “Emissions” worksheet: Reporting Period relies on entries from the “Reporting Periods” worksheet
- “Emission Formula Variables” worksheet: Reporting Period Name relies on entries from the “Emissions” worksheet

There is special formatting in the bulk upload template, such as hidden fields and reference formulas. Ensure that you are keeping with the correct format for each data field and are using the codes as indicated by the drop-down menus. Many reference formulas that are required for CAERS are hidden from view in the spreadsheet to help avoid uploading mismatched data, for example associating an emissions process to the wrong emissions unit. Use caution when performing certain actions within the bulk upload spreadsheet. **Here are examples of potential risks:**

- **Overriding formulas:** Within Excel, if you copy several horizontally adjacent cells of data and paste them into the CAERS Bulk Upload spreadsheet then you risk overwriting a necessary formula in a hidden field. However, you can safely copy and paste data vertically within a column so long as you follow the formatting precisely as the drop-down menus prescribe.
- **Overriding drop-down menu values:** Pasting data into a field which has a drop-down menu will allow you to enter any data; however, if the value does not precisely match one of the values in the drop-down menu then the upload will return an error. E.g. an operating status of “Operating” should not be entered as “operating”, and there should be no quotes or other characters.
- **Deleting drop-down menu:** Deleting a cell that has a drop-down menu can potentially delete the drop-down menu completely. While deleting the entire cell will cause a problem, deleting the content of the cell is not a problem. For example, if cell E24 has a value of “CAP” then you can delete “CAP” but should not delete cell E24.
- **Overlooking changes to other worksheets:** when an error is fixed in a parent cell, connected cells do not refresh automatically. Be sure to update the connected cells even if the change doesn’t alter the connected cells. For example, when you enter a Unit ID on the “Emission Units” tab, that value will be available as an option in the Unit ID dropdown menu on the “Emission Processes” tab. If you navigate back to the “Emission Units” tab and change a Unit ID then you will need to manually update all of the rows on the “Emission Processes” tab that have the unit chosen. There may be a cascading effect with this example if the process has already

- Skipping or clearing rows:** If a row is skipped or cleared in a worksheet, the identifiers below the cleared or skipped rows may not cascade to subsequent worksheets. For example, if a row of data is cleared in the “Emission Units” worksheet, then the units below the cleared rows do not always appear in the drop down for available units in the “Emissions Process” worksheet.

AutoSave Off | Julia | 99999999-FacilityInc.-2020.xlsx - Last Modified: 4m ago | Search

File Home Insert Draw Page Layout Formulas Data Review View Help Acrobat

Clipboard: Paste, Cut, Copy, Format Painter
Font: Calibri, Size 11, Bold, Italic, Underline, Paragraph styles, Font color, Background color
Alignment: Left, Center, Right, Justify, Indent, Decrease indent, Increase indent, Merge & Center
Number: General, Currency, Accounting, Percentage, Fraction, Decimals, Scientific, Text, Special, Custom
Styles: Conditional Formatting, Format as Table, Cell Styles
Cells: Insert, Delete, Format
Editing: Fill, Clear, Sort & Filter, Find & Select

C24 : X ✓ fx B001-PR001-Annual

	A	B	C	D	E	F	G	H	I
1									
2									
3		Enter all information marked *. Where a drop-down menu exists, select from the list of options in each menu. All field formats are "General" except where specified.							
4		Ensure that data copied into cells is in the correct format and is devoid of spaces, quotation marks and other characters.							
5		Enter all reporting period information before working on this tab.							
6									
7									
8		Tab: Emissions							
		Instruction:	Drop down. The unit, process, and reporting period reference.	Drop down. Pollutant from the process in the reporting year.	Drop down. Select "true" if no emission factor exists, or the units of measure of the denominator of the available emission factor do not match your throughput units of measure.	Total emissions for the pollutant.	Drop down. Units of measure of the emissions.	The overall percent pollutant that is released from the controls in the process release point.	
9									
10		Field	Reporting Period*	Pollutant Name*	I prefer to calculate this emission myself	Total Emissions*	Emissions Unit of Measure*	Overall Control %	
14		example entry	ML05-1-Annual	Acetaldehyde	false	1000 TON			
15			SCR-1-Annual	Benzene	false	1007.75 TON			
16			SCR-2-Annual	Nitrogen Oxides	true	2015.6 TON			
24			B001-PR001-Annual	Volatile Organic Compounds	true	300 LB			
25									
26									
27									
28									
29									
30									
31									
32									
33									
34									
35									
36									
37									
38									
39									
40									
41									
42									
43									

Control Device Pollutants | Control Path Pollutants | Apportionment | Reporting Period | Operating Details | Emissions | Emission Formula

Once your data is ready in the bulk upload template, from the “Emissions Reports” screen (Figure 4-2), click on “Upload Report”. Click on the “Browse” button to find the location of your bulk upload workbook on your computer. Once you have found the workbook, select it and the file name will now appear on your screen. Click the “Upload” button. A pop-up window will appear to show that the workbook is being uploaded. The speed at which this happens will depend on your internet connectivity speed. The upload may take several minutes depending on the size of the file.

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the data file structure and format, whereas QA checks (per Section 7) are run on the data contained in the report itself.

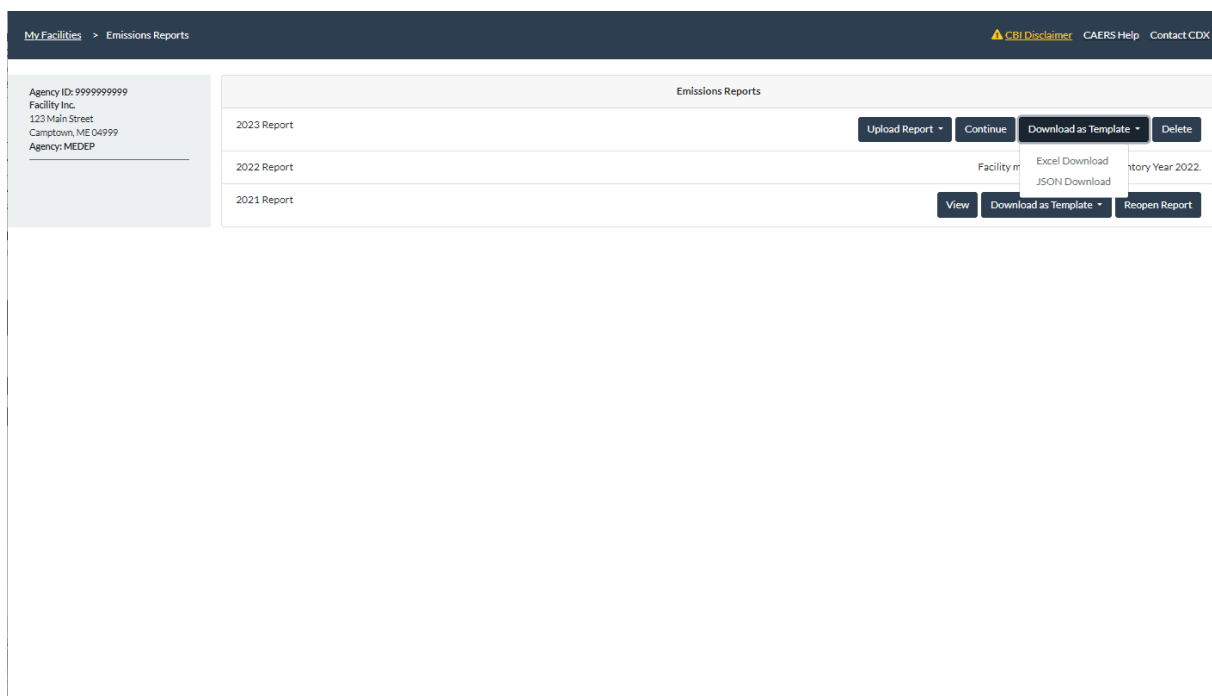
If the file contains errors that prevent it from uploading to CAERS successfully then you will see a list of “Data Errors” on the screen. Each error will indicate the worksheet and row containing the error, as well as a brief message describing it. After all the errors have been resolved, you can attempt to upload the file again. If there are no errors in the file, then you will be brought directly to the “Report Summary” page. At this stage you can navigate the CAER System as described in Section 4.

5.3 JSON

JavaScript Object Notation (JSON) upload is new in CAERS. If you would like to submit your report in JSON format, you will find reference data and instructions to access the API Spec and Data Exchange Template (DET) on the [CAERS website](#).

If you would like to upload your file in this format, you should select that option from the drop-down menu on the “Download as Template” button. To upload the report, you will similarly use the “Upload Report” button. For reference data, you can use the gray tabs in the BU template, as explained in Section 5.15.1 above.

Figure 5-2. JSON Upload Option in CAERS



6 Reporting Emissions Using Bulk Entry

If there are few to no changes in the facility inventory data, the reporter may benefit from bulk entry. Note that to use bulk entry, facility data will have to be present in the system beforehand. If you need to add a unit, process, release point, or controls information, refer to the sections in this guide for reporting through the user interface. All facility components must be present before attempting to use the bulk entry screens. Also note that if your emission factor changed, you will have to go to that

pollutant’s screen to change the factor and will need to recalculate the emissions in that screen. If you have many changes, you may prefer to use the bulk upload capability.

Click on “Bulk Entry” from the left-hand side menu. There are two tabs to work on for bulk entry. The first one is for “Process Information”. Here, you should enter the throughput value information that has changed since your previous year report. Click on the “Save and Update” button at the bottom right of the tab to save your changes. See Figure 6-1.

Figure 6-1. Bulk Entry Process Information Tab

My Facilities > Emissions Reports > 2023 Emissions Report

Agency ID: 999999999
 Facility Inc.
 123 Main Street
 Camptown, ME 04999
 2023 Emissions Report
 Agency: MEDEP

Report Summary
 Report History
 Annual Report Quality Checks
 Report Creation Log
 Data Bulk Entry
 Facility Inventory
 Facility Information
 Emissions Units
 Release Points
 Control Devices
 Control Paths
 Emissions Inventory
 A012
 B101
 B102
 B201
 B301

Report Facility & Emissions Information Perform Quality Checks Submit to SLT Authority Received by SLT Authority

Data Bulk Entry

Process Information Emission Information

Unit ID	Process ID	Throughput Material	Throughput Value	Fuel Material	Fuel Value	Previously Reported Throughput Value	% Change in Throughput
B101	123	100% Sulfuric Acid	34 DAY			N/A	N/A
B101	123	100% Sulfuric Acid	34 DAY			N/A	N/A
B101	P101	Anthracite	200 TON	Anthracite	200 TON	200 TON	0.000
B102	P102	Waste Oil	50 E3GAL	Waste Oil	50 E3GAL	50 E3GAL	0.000
B102	P102-1	Pellets	2 E2LB			2 E2LB	0.000
B201	P201	Feed	40000 TON			40000 TON	0.000
B301	Engine	Natural Gas	100 E6BTU	Natural Gas	100 E6BTU	N/A	N/A
B301	P301	Coke Oven Gas	110 E3FT3SD	Coke Oven Gas	110 E3FT3SD	110 E3FT3SD	0.000

Save Processes

The second page for Bulk Entry is the “Emissions Information” tab (Figure 6-2), which you can click on from the “Process Information” tab after entering your throughput data. Note that after changing throughputs, any pollutant emissions that can be recalculated with those throughput changes will appear as having been recalculated with green checks next to them. Certain calculation methods will require that you enter the total emissions by hand, or that you edit information in the pollutant screen. Once you have completed the emissions data entry click on the “Save and Update” button at the bottom right of the tab to save your changes. Again, in this tab, note that any changes to the calculation method, or units of measure must be entered in the relevant pollutant page. To go to that page, click on the pollutant and this will re-direct you to the relevant page. Those changes cannot be done in the Bulk Entry screens.

Figure 6-2. Bulk Entry Emissions Information Tab

Unit ID	Process ID	Pollutant	Calculation Method	Emission Factor	Total Emissions	Previously Reported Total Emissions	% Change in Emissions
B101	123						
B101	123						
		Nitrogen Oxides	USEPA Emission Factor (no Control Efficiency used)	3 LB/TON	600	LB ✓ N/A	N/A
		PM10 Filterable	Manufacturer Specification	2 LB/TON	68.56	LB N/A	N/A
		PM2.5 Filterable	Manufacturer Specification	1 LB/TON	34.28	LB N/A	N/A
		Sulfur Dioxide	Other Emission Factor (pre-control) plus Control Efficiency	3 LB/TON	600	LB ✓ N/A	N/A
		Volatile Organic Compounds	Continuous Emission Monitoring System	6 LB/TON	1200	LB N/A	N/A
		PM10 Filterable	USEPA Emission Factor (no Control Efficiency used)	127.5 LB/E3GAL	6375	LB ✓ N/A	N/A
		PM2.5 Filterable	USEPA Emission Factor (no Control Efficiency used)	72 LB/E3GAL	1.8	TON ✓ N/A	N/A
		Carbon Monoxide	Engineering Judgment		400	TON N/A	N/A
		PM2.5 Primary (Filt + Cond)	S/LT Emission Factor (no Control Efficiency used)	5 LB/TON	200000	LB ✓ N/A	N/A
		Sulfur Dioxide	Manufacturer Specification		4050	LB N/A	N/A

7 Performing Quality Checks

When you have finished entering or uploading your data, the next step is to run the quality checks. Before doing so, please consult the checklist in Appendix D of this user guide. When you are ready to perform the quality checks, click on “Annual Report Quality Checks” link on the left-hand side menu. You may also run checks from the “Report Summary” page by clicking on the “Run Quality Checks” button below and to the right of the summary table (Figure 4-3). After clicking on the button, CAERS will take you to a “Quality Review” page where you will see two types of errors listed (Figure 7-1):

- **Critical Errors** will appear in red. These errors must be addressed for the report to go through.
- **Warnings** will appear in purple. These errors will not prevent you from submitting the report, but they will alert you to potential issues you may want to address before submitting. Your SLT will be able to review these warnings so if you have questions about them, you should reach out to them before you certify and submit.
- **Facility Inventory Changes** are simply warnings ensuring that you and the SLT are aware of any facility inventory changes that were made in the report and do not necessarily constitute an error.

Broadly speaking, error messages fit in one of the following categories:

- **Calculation errors** - Data calculated outside the form that doesn’t match what CAERS is calculating, for example:
 - Your reported emissions for a process and pollutant are not within 1% (warning) or 5% (critical) of the emissions CAERS is calculating.

- **Inconsistent data entries** - Data entered is not possible given some physical or temporal constraint, for example:
 - 100% of annual emissions for 52 weeks of operation have been entered as occurring during the Winter season.
 - The latitude for a release point has been reported but is too far from the facility (outside of its facility latitude threshold).
 - An emission factor was provided, but its denominator is in different units of measure than throughput, so a simple conversion is not possible, and
 - The reported emissions previous year reported emissions are identical to the previous inventory year reported emissions.
- **Expected information is missing** - Data are expected to be entered, but the data field is empty. This includes data fields that are conditional on the entry of others. Examples include:
 - In the EPA emission factor, the "I prefer to calculate the total emissions of this pollutant" has been checked but the "Description of Calculation" box has not been populated.
 - Existing controls have not been assigned to a path, and
 - If a release point stack diameter is reported, then exit gas flow rate and exit gas velocity should also be reported.
- **Incorrect format** - Data must be entered in a specific format, for example:
 - Postal code must be in five-digit or nine-digit format, and
 - Value for a year must be four digits.
- **Data is not allowed** – Data entered is not allowed, for example:
 - Duplicate ID was entered for the same component (unit, release point, process, or control), but IDs for sub-facility components must be unique within the facility.
 - Units of measure that are not supported are being used, and
 - SCC entered has been retired in a year prior to the inventory year being reported.

In the case of data that are not allowed, some legacy data may have been carried into CAERS for new system users. While the old data will be displayed, the system will require you to update it. For example, in a previous submission you used a unit of measure code "Million BTUS", but the system now requires you to enter the new code "E6BTU". Be sure to update the information by selecting a valid code from the drop-down list.

Figure 7-1. Quality Review Page

Yazoo City, MS 12345
2024 Emissions Report
Agency: MSDEQ

Report Summary
Report History
Annual Report Quality Checks
Report Creation Log
Data Bulk Entry

▼ Facility Inventory
Facility Information
Emissions Units
Release Points
Control Devices
Control Paths

▼ Emissions Inventory
► U001
► U002
► U003
► U004

Annual Report Quality Review

[Run Quality Checks](#)
QA Checks were last run 1/3/25, 12:42 PM

Errors

- Attachments - An attachment describing the calculation methods is required if your facility has at least one non-emission factor calculation method utilized, or when using an emission factor and choosing to perform the calculations yourself.

Warnings

- Emissions Unit: U001, Emissions Process: P001, Pollutant: Carbon Monoxide - The total emissions for this Emissions Process and Pollutant are exactly the same as your 2023 submission. Please check to ensure that the emissions for this year are correct and have not changed.
- Emissions Unit: U001, Emissions Process: P001, Pollutant: PM2.5 Primary (Filt + Cond) - The total emissions for this Emissions Process and Pollutant are exactly the same as your 2023 submission. Please check to ensure that the emissions for this year are correct and have not changed.
- Emissions Unit: U001, Emissions Process: P001, Pollutant: Volatile Organic Compounds - The total emissions for this Emissions Process and Pollutant are exactly the same as your 2023 submission. Please check to ensure that the emissions for this year are correct and have not changed.
- Emissions Unit: U001, Emissions Process: P001, Pollutant: Sulfur Dioxide - The total emissions for this Emissions Process and Pollutant are exactly the same as your 2023 submission. Please check to ensure that the emissions for this year are correct and have not changed.
- Emissions Unit: U001, Emissions Process: P001, Pollutant: PM10 Primary (Filt + Cond) - The total emissions for this Emissions Process and Pollutant are exactly the same as your 2023 submission. Please check to ensure that the emissions for this year are correct and have not changed.
- Emissions Unit: U001, Emissions Process: P001, Pollutant: Nitrogen Oxides - The total emissions for this Emissions Process and Pollutant are exactly the same as your 2023 submission. Please check to ensure that the emissions for this year are correct and have not changed.
- Emissions Unit: U001, Emissions Process: P001, Pollutant: Lead - The total emissions for this Emissions Process and Pollutant are exactly the same as your 2023 submission. Please check to ensure that the emissions for this year are correct and have not changed.
- Emissions Unit: U001, Emissions Process: P002, Pollutant: Sulfur Dioxide - The total emissions for this Emissions Process and Pollutant are exactly the same as your 2023 submission. Please check to ensure that the emissions for this year are correct and have not changed.
- Emissions Unit: U002, Emissions Process: P001, Pollutant: Sulfur Dioxide - The total emissions for this Emissions Process and Pollutant are exactly the same as your 2023 submission. Please check to ensure that the emissions for this year are correct and have not changed.
- Emissions Unit: U002, Emissions Process: P001, Pollutant: Volatile Organic Compounds - The total emissions for this Emissions Process and Pollutant are exactly the same as your 2023 submission. Please check to ensure that the emissions for this year are correct and have not changed.

Note: Example errors here are not comprehensive in this figure.

To address each error on the quality review page, click on the name of the error (underlined), to be taken to the screen where the error is occurring (Figure 7-2). You will see a red bar at the top of your screen containing the error to be addressed. Click on the “Edit” button of the relevant box to make your edits, then click “Save”. You can now click on the “x” at the top right of the error message in the red box to remove it from view.

Figure 7-2. Correcting an Error

My Facilities > Emissions Reports > 2023 Emissions Report

[CBI Disclaimer](#)
[CAERS Help](#)
[Contact CDX](#)

Agency ID: 9999999999
Facility Inc.
123 Main Street
Camptown, ME 04999
2023 Emissions Report
Agency: MEDEP

Report Summary

Report History

Annual Report Quality Checks

Report Creation Log

Data Bulk Entry

▼ Facility Inventory

Facility Information
Emissions Units
Release Points
Control Devices
Control Paths

▼ Emissions Inventory

A012
B101
B102
B201
B301

Report Facility & Emissions Information

Perform Quality Checks

Submit to SLT Authority

Received by SLT Authority

1. The total apportionment for all release points associated with this process must equal 100%.
2. The Emissions Process is not associated with a Release Point. A process must go to at least one Release Point.

Add Alternative Throughput for this Process

Process Information

Unit ID: B301

Process ID: Engine

Process Description: Engine

Operating Status: Operating

Year Op Status Changed: 2021

SCC: 20200201

SCC Description: Internal Combustion Engines > Industrial > Natural Gas > Turbine

Comments:

Edit

Operating Details

Avg. Days per Week: 5

Hours per Reporting Period: 125

Avg. Hours per Day: 5

Winter Operating Percent: 25

Avg. Weeks per Reporting Period: 5

Spring Operating Percent: 25

Summer Operating Percent: 25

Fall Operating Percent: 25

Edit

Reporting Period

Reporting Period: Annual

Operating Type: Routine

Throughput Parameter: Input

Throughput Material: Natural Gas

Throughput Value: 100

Throughput UoM: MILLION BTUS

Fuel Material: Natural Gas

Fuel Value: 100

Fuel UoM: MILLION BTUS

Heat Content Ratio: 111

Heat Content Ratio: MILLION DRY STANDARD CUBIC FEET

Heat Content Ratio: MILLION BTUS

Denominator: MILLION BTUS

Comments:

Edit

Click on “Quality Checks” link on the left-hand side of your screen to return to the “Quality Review” page. When you return to the “Quality Review” screen the error if you re-run the checks, the error will have disappeared. Once you have addressed all errors you will see the “Quality Review” screen devoid of error messages. Note that warnings may still appear. (Figure 7-3). You should review all blue warnings to ensure they are not actual errors. For example, you may want to check that you have updated throughputs and emissions calculations for all your units and processes. This will ensure that you no longer see the warning that states that your reported emissions are the same as last year’s.

Figure 7-3. Completing Quality Checks

My Facilities > Emissions Reports > Report Validation

Agency ID: 999999
My Facility Inc.
123 My Facility Road
Washington, DC 99999
2023 Emissions Report
Agency: DOE

Report Summary
Report History
Annual Report Quality Checks
Report Creation Log
Data Bulk Entry
▼ Facility Inventory
Facility Information
Emissions Units
Release Points
Control Devices
Control Paths
▼ Emissions Inventory
▼ B201
P201
▼ B202
123
P202
P202-1
▼ B301
P301
▼ B401
P401

Report Facility & Emissions Information Perform Quality Checks Submit to SLT Authority Received by SLT Authority

Annual Report Quality Review

Quality checks were completed with warnings. Please review the following warnings and make any necessary updates before submitting your report from the Report Summary screen.

[Proceed to Report Summary](#)

Warnings

- [Emissions Unit: B201, Emissions Process: P201](#) - Material and UoM are the same for both throughput and fuel, so the value for each is also expected to be the same.
- [Emissions Unit: B202, Emissions Process: 123, Pollutant: Carbon Monoxide](#) - The total emissions for this Emissions Process and Pollutant are exactly the same as your 2022 submission. Please check to ensure that the emissions for this year are correct and have not changed.
- [Emissions Unit: B201, Emissions Process: P201](#) - Reported throughput is 20% higher than the value reported in your previous report. Please check your calculations.
- [Emissions Unit: B201, Emissions Process: P201](#) - Reported fuel is 20% higher than the value reported in your previous report. Please check your calculations.
- [Emissions Unit: B202, Emissions Process: P202](#) - Reported throughput is 20% higher than the value reported in your previous report. Please check your calculations.
- [Emissions Unit: B202, Emissions Process: 123, Pollutant: Carbon Monoxide](#) - You have reported zero emissions and may want to revise this value.

Facility Inventory Changes

- [Emissions Unit: B401](#) - You have added a unit for your facility. Please ensure that you have checked with your SLT that the data entered is correct, before you certify this report, to avoid having the report returned to you.
- [Emissions Unit: B401, Emissions Process: P401](#) - You have added a process for your facility. Please ensure that you have checked with your SLT that the data entered is correct, before you certify this report, to avoid having the report returned to you.
- [Emissions Unit: B301](#) - You have added a unit for your facility. Please ensure that you have checked with your SLT that the data entered is correct, before you certify this report, to avoid having the report returned to you.
- [Emissions Unit: B301, Emissions Process: P301](#) - You have added a process for your facility. Please ensure that you have checked with your SLT that the data entered is correct, before you certify this report, to avoid having the report returned to you.

Once you’ve cleared all red critical errors, you will also see the blue line has advanced on the top of your screen to show that the quality checks step has been completed. Preparers are now ready to move the report to certification. By clicking on report summary, you will see a “Ready to Certify” button at the bottom right-hand side of your screen (Figure 7-4). When you click on that button, the system will automatically send an email alerting the certifier that the report is ready to be certified.

Figure 7-4. Report Ready to Certify

Report Creation Log

Data Bulk Entry

▼Facility Inventory

Facility Information

Emissions Units

Release Points

Control Devices

Control Paths

▼Emissions Inventory

▶ U001

▶ U002

▶ U003

▶ U004

Manganese	HAP	0.000017545	0.000233955	Tons	0.0002515	0.0002515	2023
Nitrogen Oxides	CAP	0.026775	0.865725	Tons	0.8925	0.8925	2023
PM10 Primary (Filt + Cond)	CAP	0.073725	6.983775	Tons	7.0575	7.0575	2023
PM2.5 Primary (Filt + Cond)	CAP	0.037713	3.519387	Tons	3.5571	3.5571	2023
Sulfur Dioxide	CAP	0.19740528	6.38347272	Tons	6.580878	6.580878	2023
Volatile Organic Compounds	CAP	1.610430014742	55.432571459458	Tons	57.0430014742	57.0430014742	2023
Total Emissions (Tons)	--	--	--	--	75.1579416262	75.1579416262	--

Download Report Summary
Download Process Emissions Summary

Preparer/NEI Certifier Attachments

Date	Role	User Name	Comments	Attachments	
1/3/25	NEI Certifier	Julia Gamas-Buentello		2024 Report Attachment.xlsx	

Attach Report Document

Certify and Submit to SLT
Annual Report Quality Checks

8 Certifying and Submitting to your State, Local, or Tribal (SLT) Authority

As an NEI Certifier, you will log into CAERS and chose the “certifier” role from the “My CDX” page (Figure 3-14). You will see the same screens as the preparer. However, when you are in the “Report Summary” page, you will see an additional button “Certify and Submit to SLT”. When you are ready to certify that your submission is complete and accurate, click on that button.

You will see a window stating that you can download and review the copy of record of your report (Figure 8-1) and indicating the date and time since the last time the report was updated. Note that this step ensures that you, as certifier, know the contents of the report you are about to certify.

If in a final review of your report, you find an error, please correct it before certifying and submitting, to avoid delaying your submission further (see Section 8.2 for instructions on how to correct a report after it has been certified).

Figure 8-1. Submission Review Screen

The screenshot displays the 'Submission Review' modal window. The modal contains the following information:

- Facility Name:** Facility Inc
- Facility ID:** 99999999
- Report Year:** 2024
- Emissions Report Last Updated:** January 3, 2025 at 12:58:14 PM GMT-5

Below the details, there is a message: "Before submitting your report, you should view a copy and review it for accuracy." followed by a green "View Report" button.

Under "Download Report Attachments", there is a link: "2024 Report Attachment.xlsx".

At the bottom of the modal, there is a checkbox: "I acknowledge that I have had the opportunity to download and review the data in this report." and two buttons: "Proceed" (green) and "Cancel" (dark blue).

The background shows a sidebar with navigation options like "Report Creation Log", "Data Bulk Entry", "Facility Inventory", "Emissions Inventory", and a table with columns for various pollutants (Manganese, HAP, etc.) and their values.

8.1 Certification and Submission of Report

If you are satisfied with the report, you can click “Proceed”. This will take you to a three-stage ([CROMERR](#)) certification process. First, it will request your password, then it will ask you to answer a security question. Finally, it will ask you to click certify and verify you are submitting correct information (Figure 8-2). You will see a “please wait” sign while you are waiting. Once the submission has been certified, a message will appear in green at the top right of your screen. The progress bar at the top of your screen will have changed and “Submit to SLT Authority” will now be highlighted in blue.

Figure 8-2. Submission Certification

The screenshot shows a certification statement in a white box with a green border. The text reads:

I certify under penalty of law that I have personally examined and am familiar with the information I submitted in this and all attached documents, and that based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the submitted information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

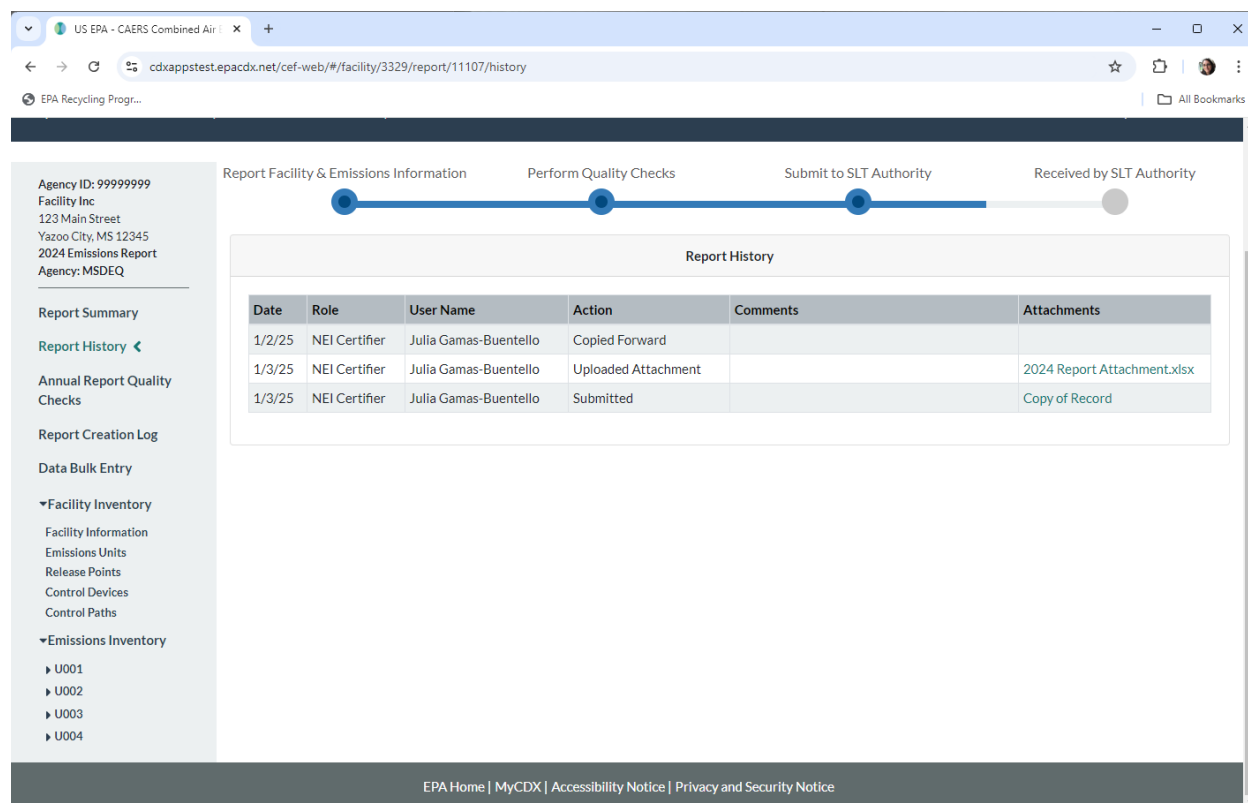
Below the statement are two green buttons: "Accept" and "Decline".

The background shows a table with columns for "Name", "Preparer/NEI Certifier", and "Attachments".

Once you have submitted your report, the screen will prompt you to wait for the submission and you will then be returned to the Emissions Report screen where a green pop-up window will indicate the report has been certified and submitted.

To retrieve a copy of record, go back to “View” report and click on the “Report History” link. The last entry on the list of actions will show you a link to your facility’s copy of record. You will be able to download it as a zip file that will contain a copy of record in html format and the attachments to the report. You will be able to print and save the file to PDF if desired, via your browser.

Figure 8-3. Obtaining a Copy of Record



8.2 Correcting Reports with Errors after Submission to SLTs

Once your report has been certified and submitted to your SLT you will receive an email from the system notifying you that your report has been successfully submitted. You may still reopen and edit the report until the time your SLT has marked it as being in review at which point it will be locked and in “view only” mode. Once your report is locked for SLT review, you will now only be able edit the report if your SLT pushes it back to you. This may happen if your SLT has found errors and would like you to correct them. If so, you will receive an email with an explanation of what the SLT would like you to change.

However, if you have already certified your report and realize it contains an error, you should reach out to your SLT immediately, and have them reject the report and push it back to you so you may edit the report. The point of contact information for your SLT can be found by clicking on the “Help” tab and is also listed in this document in Section 11.2.

8.3 Disputing or Repudiating a Report

In the unlikely event that you receive an email notifying you that your report has been submitted but:

- you did not perform this submission,

- you have any reason to dispute or repudiate this submission, or
- you determine there is a discrepancy between the electronic document you signed and submitted, and the record received by CDX,

please reach out to the Help Desk immediately, and ideally within the first 24 hours of realizing there is an issue with your report, so that the relevant action may be taken promptly. The email notification from the original submission will contain instructions for how to proceed as well as the Help Desk information. Please do not reach out to your SLT first for this issue, as this will only further delay solving the problem. If you do, your SLT will have to direct you back to the Help Desk to start the repudiation process. Your Help Desk staff will take the necessary steps to address the matter. The Help Desk information can also be found in the Help tab at the top right of your screen, and in Section 11.1 of this document.

8.4 CDX Submission History

You can obtain copies of record for your submissions by going to the CDX "Submission History" page. From your MyCDX screen (Figure 3-14), at the top of your screen you will see the "Submission History" tab. By clicking on that tab, you will find your submission history.

Figure 8-4. CDX Submission History Page

The screenshot displays the EPA Central Data Exchange (CDX) interface. At the top, the EPA logo and navigation tabs (Home, About, Recent Announcements, Terms and Conditions, FAQ, Help) are visible. The user is logged in as JULIAGAMAS. The 'Submission History' tab is selected, showing a list of recent submissions. The table below contains the following data:

Submission ID	Dataflow	Description	Created	Download
dae8be6a-3464-45e8-999c-b3795a6fa25e	CAER	Combined Air Emissions Reporting Submission	Sep 16, 2021 11:42:11 AM	Link (.zip)
4ab61a39-80ed-4312-91a0-9a6bfe16977d	CAER	Combined Air Emissions Reporting Submission	Mar 31, 2021 2:02:45 PM	Link (.zip)
7f54b307-1869-4134-8b56-ee0b5fc22649	CAER	Combined Air Emissions Reporting Submission	Mar 23, 2021 3:53:09 PM	Link (.zip)
e4a6c5aa-a8f9-423c-8361-de2c12c967e6	CAER	Combined Air Emissions Reporting Submission	Jan 6, 2021 1:54:05 PM	Link (.zip)
b5e4b2fa-f94e-40cc-bd61-eefd97c9d269	CAER	Combined Air Emissions Reporting Submission	Jan 6, 2021 1:43:33 PM	Link (.zip)
cb697a54-fced-49a6-a988-c011a2c76760	CAER	Combined Air Emissions Reporting Submission	Jan 6, 2021 1:35:15 PM	Link (.zip)
22f52454-a103-4134-bf62-91236fce8b19	CAER	Combined Air Emissions Reporting Submission	Jan 6, 2021 1:27:57 PM	Link (.zip)
41b1d212-d562-435f-ade9-1a98cc74aef7	CAER	Combined Air Emissions Reporting	Jan 6, 2021 1:14:18 PM	Link (.zip)

9 Submission Approval

Once the report has been submitted, your SLT staff will review the report. The person listed as preparer, certifier, and the "Emissions Inventory" contact for your facility, will be notified of whether the report was approved or rejected.

Once your SLT staff have reviewed your report, they will send it to EPA. While every effort has been made to provide preparers with quality assurance checks that will help you submit the highest quality data, both your SLT staff and EPA's Emissions Inventory System (EIS) may present additional checks (either new or checks that are not possible to include in CAERS given their nature). These checks may require you to make corrections to your report after you have certified it. In that case your SLT will return your report for revisions. These revisions usually take place in the Fall. To avoid some of these issues, we encourage you to review the "Additional Considerations" sections after each section and chapter.

If rejected, comments in the email will explain the issue(s) to be addressed. At that point you should re-open and correct your report, as indicated by your SLT Authority. If your preparer or certifier contact person will change at any time after the report was submitted, please let staff at your SLT know so the new contact person can be approved to enter CAERS and issue any corrections as needed.

10 Using Data Reported in CAERS for a TRI-MEweb submission

If you are an NEI-TRI facility reporter, you may start a TRI and NEI reportable chemical Reporting Year (RY) 2023 Form R in TRI-MEweb at anytime before the July 1 TRI reporting deadline. You must have submitted and certified your CAERS data before you start your TRI Form R in the TRI-MEweb application to use the API web service call to populate CAERS data into Section 5.1 and 5.2. You should follow these steps to use data reported to CAERS in TRI-MEweb to save time reporting to both systems.

Note that currently in CAERS, for your data to be usable in TRI, you must have a one-to-one match between your NEI and TRI facility, and pollutant. Your emission types should also match; in your emissions inventory report you typically enter an emission operating type "routine" and can also enter shutdown, startup and upset. Your TRI report also includes a category of non-routine (catastrophic events not associated with normal or routine production processes which can apply to air emissions releases) in Form R, Section 8.8. You must ensure that your routine emissions in your annual inventory report in NEI matches your routine emissions in TRI.

1. Upon arriving to Section 5 of the RY 2024 TRI Form R, an application to application (Application Programming Interface or API) call between CAERS and TRI-MEweb will verify if your EPA Facility Registration ID and CAS number match any data point in the CAERS database. Data in the CAERS database must be certified for it to be used in TRI-MEweb. See Figure 10-1.

Figure 10-1. Example of Section 5 Form R Screen in TRI-MEweb

TRI-ME web

JS#RESHA - CERTIFIER - jersha.shresha@cgl.com (Log out)

My TRI Facility Management Forms Submission History Help

Tutorials Preferences Help Chat

Part I > 34: Activities and Uses/Max On-site > 5: On-site Releases > 6: Off-site Transfers > 7: On-site Waste Management > 8: Waste Management > 9: Misc. Information

On-site Releases and Disposal
Form R, Part II, Section 5 [Need Reporting Help?](#)

RY 2019
TEXPAR BAINBRIDGE TERMINAL - 317171TXPRN263IN
1.2.4.Trimethylbenzene...

Hover your cursor over this icon for more information. Enter data using detailed worksheet.

Form Section	Not Applicable	Total Quantity (lbs)	Numeric Basis	Basis of Estimate
Air Releases				
Section 5.1 Fugitive or Non-Point Air Emissions	<input type="checkbox"/>	<input type="text"/> or <input type="text"/> Select a Range Code	<input type="text"/>	Select a Basis of Estim...
Section 5.2 Stack or Point Air Emissions	<input type="checkbox"/>	<input type="text"/> or <input type="text"/> Select a Range Code	<input type="text"/>	Select a Basis of Estim...
Land Releases				
Section 5.4.1 On-site Underground Injection: Class I Wells	<input type="checkbox"/>	<input type="text"/> or <input type="text"/> Select a Range Code	<input type="text"/>	Select a Basis of Estim...
Section 5.4.2 On-site Underground Injection: Class II-V Wells	<input type="checkbox"/>	<input type="text"/> or <input type="text"/> Select a Range Code	<input type="text"/>	Select a Basis of Estim...
Section 5.5.1A On-site Landfills: RCRA Subtitle C	<input type="checkbox"/>	<input type="text"/> or <input type="text"/> Select a Range Code	<input type="text"/>	Select a Basis of Estim...
Section 5.5.1B On-site Landfills: Other	<input type="checkbox"/>	<input type="text"/> or <input type="text"/> Select a Range Code	<input type="text"/>	Select a Basis of Estim...
Section 5.5.2 On-site Land Treatment and Application Farming	<input type="checkbox"/>	<input type="text"/> or <input type="text"/> Select a Range Code	<input type="text"/>	Select a Basis of Estim...
Section 5.5.3A On-site Surface Impoundments: RCRA Subtitle C	<input type="checkbox"/>	<input type="text"/> or <input type="text"/> Select a Range Code	<input type="text"/>	Select a Basis of Estim...
Section 5.5.3B On-site Surface Impoundments: Other	<input type="checkbox"/>	<input type="text"/> or <input type="text"/> Select a Range Code	<input type="text"/>	Select a Basis of Estim...
Section 5.5.4 Other On-Site Disposal	<input type="checkbox"/>	<input type="text"/> or <input type="text"/> Select a Range Code	<input type="text"/>	Select a Basis of Estim...

A facility that manages waste rock piles may elect to indicate that at least some of the quantities entered above for Section 5.5 were managed in waste rock piles.
☐ Select the checkbox if you would like to indicate that quantities reported in Section 5.5 were managed in waste rock piles.

Prev (Activities and Uses) Save Next (Water Bodies) Check for Errors

Version: 2019.0.11 GPS Home HACOS TRI Program Home TRI Program Contacts

2. After a few seconds, if there is a match between the TRI-MEweb facility and chemical profile with the CAER database, a green icon titled "NEI data available" will appear (Figure 10-2).
3. As the preparer of the TRI Form R, click on the green button to call the NEI widget to appear on the Section 5 page of TRI-MEweb.

Figure 10-2. Example of "NEI Data Available" Screen

4. A pop-up will appear (Figure 10-3). It contains the most recent active record that is found in the CAERS database: Reporters for large NEI facilities will see the most recent annual submission that is available in the CAER system.

Figure 10-3. Example NEI Data Availability Pop-Up Window

5. If you decide, for whatever reason, not to transfer the amount that was shown in the pop-up or the facility information in the pop-up is inaccurate, a comment box will appear so that you can provide a rationale for why the NEI data point was not used (Figure 10-4). This comment will be collected in Section 9.1 of the TRI Form R. We would like to make the submission process easier

for you, and we appreciate knowing how we can improve this process for you from the feedback you provide in this step.

Figure 10-4. Example Pop-Up Window for Comment

NEI Data Available

You have detected that your facility has filed a National Emission Inventory (NEI) report in CY 2019. The data below represents the most recent NEI data submitted in last three year. Click Yes to copy your NEI Point and Non-point source emission data into Section 5.1 and 5.2 on your TRI form R.

NEI Submission Calendar Year: 2019
 NEI Submission Status: SUBMITTED
 NEI Submission Certification Date: 01/21/2020
 Facility Name Reporting to NEI: Texcar Energy LLC
 EPA Registry ID (E): 10002102368
 TRI Facility ID (TRIFID): 31717TXPRN0268N
 Non-Point Source release amount reported in CY 2019 to NEI (lbs): 0
 Point Source release amount reported in CY 2019 to NEI (lbs): 6,992

Provide Optional Information Related to NEI data
 (Please provide any optional information related to why you are not using the available NEI data for this chemical. Information provided here will appear in Section 9.1.)

(0000/4000 characters remaining)

Buttons: Save and Continue, Use Available NEI Data, Cancel

Background Form: On-site Releases and Disposal
 Form R, Part II, Section 5
 Have your cursor over the ? icon for more information. Enter data using detailed instructions.

Air Releases
 Section 5.1 Fugitive or Non-Point Air Emissions
 Section 5.2 Stack or Point Air Emissions

Land Releases
 Section 5.4.1 On-site Underground Injection: Class I Wells
 Section 5.4.2 On-site Underground Injection: Class II V Wells
 Section 5.5.1A On-site Landfills: RCRA Subtitle C
 Section 5.5.1B On-site Landfills: Other
 Section 5.5.2 On-site Land Treatment and Application Farming
 Section 5.5.3A On-site Surface Impoundments: RCRA Subtitle C
 Section 5.5.3B On-site Surface Impoundments: Other
 Section 5.5.4 Other On-Site Disposal

A facility that manages waste rock piles may elect to indicate that at least some of the quantities entered above for Section 5.5 were managed in waste rock piles.
☐ Select the checkbox if you would like to indicate that quantities reported in Section 5.5 were managed in waste rock piles.

Buttons: Prev (Activities and Uses), Save, Next (Water Bodies), Check for Errors

- If you select “Yes, copy my CY [year] NEI emission data into Section 5.1 and 5.2”, the quantities will be copied into the TRI form R. You will then need to complete Form R, validate, and certify to complete their TRI reporting requirement.

11 Where to Go for Help

You can get help and more resources by clicking on the “CAERS Help” tab on the top right side of your screen (see Figure 11-1).

Figure 11-1. Help Screen in CAERS

Help Resources

Data Collection Authority

OMB Control No	Title
2060-0580	Air Emissions Reporting Requirements (AERR) (Renewal)
2070-0212	Toxic Chemical Release Reporting (Renewal)
2060-0003	Prevention of Significant Deterioration and Non-Attainment New Source Review (Renewal)

Application Support

For the most recent version of the CAERS user guide and its appendices (including the glossary and default heat content ratios), NEI-TRI pollutant crosswalk, and video trainings navigate to the [CAERS Resources for Industry Reporters](#) webpage.

CAERS Helpdesk Support

The CDX Helpdesk Support is also your CAERS Helpdesk Support. Please contact the CDX Helpdesk by using one of the options listed at <https://cdx.epa.gov/Contact>.

Program Support

Note: Questions relating specifically to emissions reporting and facility data should be directed to your SLT Authority.

- Arizona Department of Environmental Quality (AZDEQ): EmissionInventory@azdeq.gov, (602) 771-2373
- Georgia Department of Natural Resources (GADNR): Emissions.Inventory@dnr.ga.gov, (470) 524-0723
- Idaho Department of Environmental Quality (IDDEQ): erin.danenberg@deq.idaho.gov, (208) 373-0236
- Maine Department of Environmental Protection (MEDEP): DEP-EmissionsInventory@maine.gov, (207) 815-7684
- Mississippi Department of Environmental Quality (MDEQ): caers@mdeq.ms.gov, (601) 961-5164
- Pima County Department of Environmental Quality (PCDEQ): kristen.randall@pima.gov, (520) 724-7341
- Rhode Island Department of Environmental Management (RIDEM): Alexi.Mangili@dem.ri.gov, (401) 537-4384
- Washington, D.C. Department of Energy & Environment (DOEE): air.quality@dc.gov, (202) 535-2600

11.1 Help with the CAERS application itself

Reach out to the help desk for questions about how to enter data into CAERS by clicking on the “[Contact CDX](#)” link at the top right of your screen at any time while you are in the User Interface.

Questions for the CDX help desk include the following types of issues:

- Questions about logging into your CDX account
- Unexplained errors while using the application
- How to enter a specific piece of data
- How to navigate from one screen to another

Note that the help desk above is not the right resource for questions about the data itself. Those questions should be referred to your SLT Authority.

11.2 Help with program-related questions:

Reach out to your SLT for questions related to the content of your submission, such as:

- Resolving critical errors (appearing in red that must be addressed for the report to go through)
- Ensuring warnings are understood and have been addressed, where appropriate
- Selecting an appropriate SCC and/or emission factor
- Finding out the unit capacity measure of a unit
- The appropriateness of a specific type of unit of measure conversion for a specific kind of process

Points of contact from your SLT are as follows. Please refer to the CAERS Help Page for the most updated list of POCs, as staff at SLTs may have changed since this user guide was published:

- Arizona Department of Environmental Quality (AZDEQ): EmissionInventory@azdeg.gov, (602) 771-2373
- Georgia Department of Natural Resources (GADNR): Emissions.Inventory@dnr.ga.gov, (470) 524-0723
- Idaho Department of Environmental Quality (IDDEQ): erin.danberg@deg.idaho.gov, (208) 373-0236
- Maine Department of Environmental Protection (MEDEP): DEP-EmissionsInventory@maine.gov, (207) 815-7684
- Mississippi Department of Environmental Quality (MDEQ): caers@mdeg.ms.gov, (601) 961-5768
- Pima County Department of Environmental Quality (PCDEQ): kristen.randall@pima.gov, (520) 724-7341
- Rhode Island Department of Environmental Management (RIDEM): Alexi.Mangili@dem.ri.gov, (401) 537-4384
- Washington, D.C. Department of Energy & Environment (DOEE): air.quality@dc.gov, (202) 535-2600
- Facilities on Tribal Lands in EPA Region 10 (EPA_R10): brown.carl@epa.gov, (208) 378-5747

Please do not contact EPA directly, or EPA contractors for any questions, or this will only delay getting you help further. Please reach out to the CDX help desk (registration, and CAERS application-related) or your SLT first. This will ensure the right help gets to you as quickly as possible.

Appendix A Control Devices in Facility Emissions Inventories

In this section, we introduce concepts regarding controls to help you understand how to set the controls up for your facility in the CAERS.

It is important to enter accurate controls information so that your facility's emissions may be calculated and interpreted correctly by inventory developers.

CAERS captures controls information as follows:

- A list of controls can exist for the facility as those controls exist in the real world.
- A control device entered in CAERS represents a single piece of control equipment.
- Only the pollutants impacted by this piece of equipment will be listed with the control.
- The percent reduction for the pollutant will be the amount of pollutant emissions reduced due to this one piece of equipment.
- The controls configuration can be described with the data:
 - Single control device
 - More than one control device in series
 - More than one control device in parallel
 - Combinations or complex control device configurations

The following are important concepts for reporters to understand as they enter control device-related data, examples follow to illustrate these concepts, and a detailed training can be found on the [CAERS website](#):

1. **Control Path:** Allows the user to represent how one or more controls at a facility are configured (how they relate to each other). The path allows users to define multiple kinds of control configurations. It can control devices as well as child paths. A path cannot refer to itself (or another path that contains it). Ultimately, there should be a primary or main path that will define the controls that are encountered from the emissions generation point of a unit-process to one or more release points.
2. **Control Apportionment:** defined as the percentage of the emissions that are being directed to the next control or path within a control device configuration. The emissions stream must be apportioned so that all control apportionments add up to 100%. For example:
 - a. If the emissions stream moves into a single control from the previous control or path in a sequence, then the control apportionment is 100%.
 - b. if the emissions stream is split and is moving to two control devices in equal amounts, then the control apportionment for those two devices will be 50%.
3. **Control Path Assignment:** defines the sequence or order in which controls are configured within a path. The first control in a path would have sequence number 1, the second control would have sequence number 2, and so forth. If there is a child path within a parent path, that path will also have a sequence number. If, for example, two controls run in parallel, they will have the same sequence number.
4. **Path Effectiveness:** The combined effectiveness of the controls in that path. Must be present on a main or primary path.
5. **Path Pollutant Percent Reduction Efficiency:** The combined percent reduction efficiency of the pollutant for the entire path. Must be present on a main or primary path.

A. 1 Example of a Facility with No Controls

A reporter for a facility that has no controls does not need to create any paths. The user must provide a release point apportionment(s) for the process(es). Figure A. 1 shows a graphic example of a facility with no control devices. The red arrow represents emissions that ultimately move from the process to both a stack and a fugitive release point. Assume that in this case, the entire emissions stream emitted from P102 is directed so that 95% of the emissions are sent to the stack, and 5% are fugitive emissions. Table A. 1 shows how the data would be entered into the CAERS for this example.

Figure A. 1. Example of a Facility with No Control Device

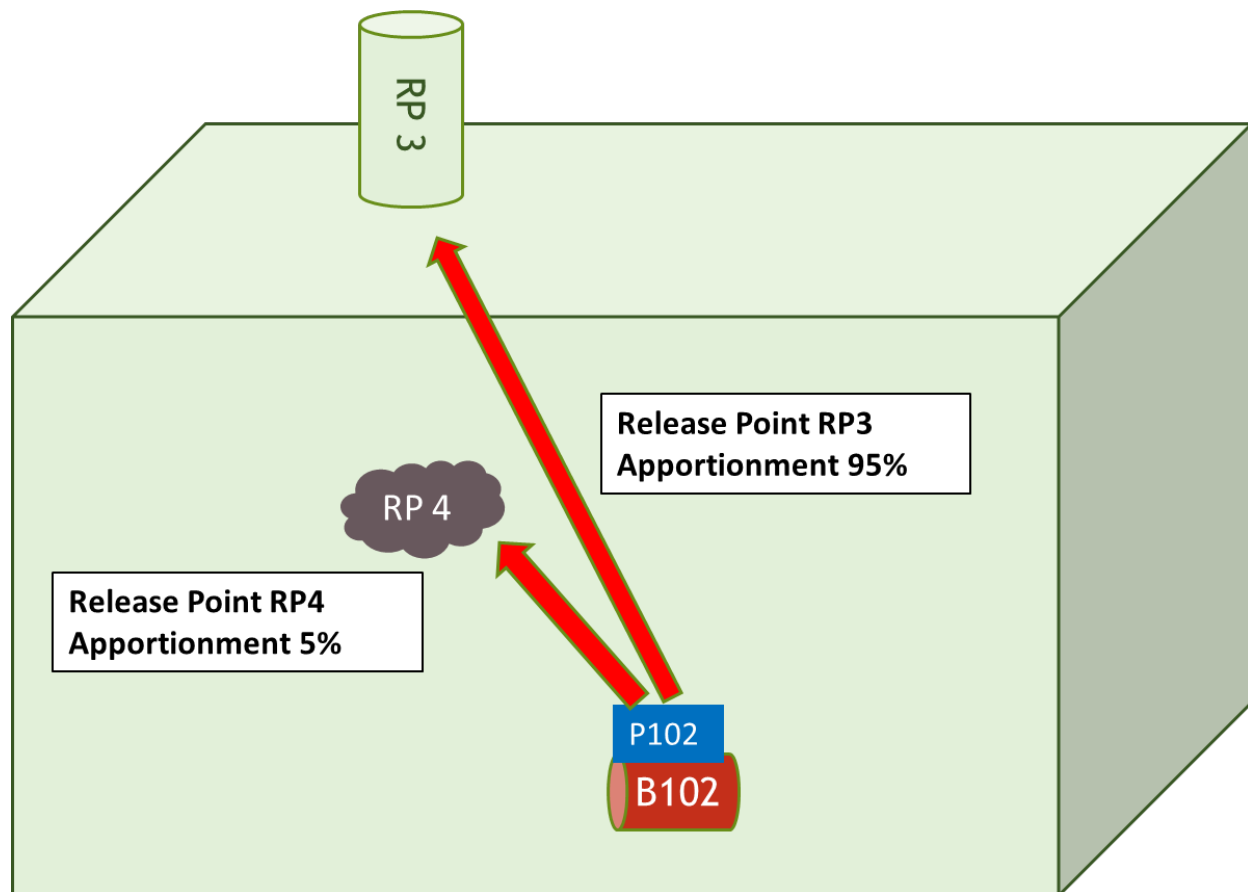


Table A. 1. Example Associations for a Facility with No Controls

Unit ID	Process ID	Path ID	Release Point ID	Release Point Apportionment
B102	P102	<i>None is entered.</i>	RP3	95%
B102	P102	<i>None is entered.</i>	RP4	5%

A. 2 Example of a Facility with a Single Control

Figure A. 2 shows the example of a facility with a single control. The yellow arrow indicates emission moving from the process to the control device. The red arrow shows the emissions moving to the release point. In this scenario, assume there is one process, Process 1. The Control 1 is placed in

Path 1. The control apportionment is 100% and the control assignment sequence number is 1. Table A. 3 shows the assignment of the control. Table A. 4 shows the associations for that control and the other relevant sub-facility components. Note that if the emissions stream from more than once process or units-processes share the same route through the control device to the release points, you may use the same path to associate those unit-processes to the release points. You would not have to create a primary path for each unit-process and release point.

Figure A. 2. Example of a Facility with a Single Control

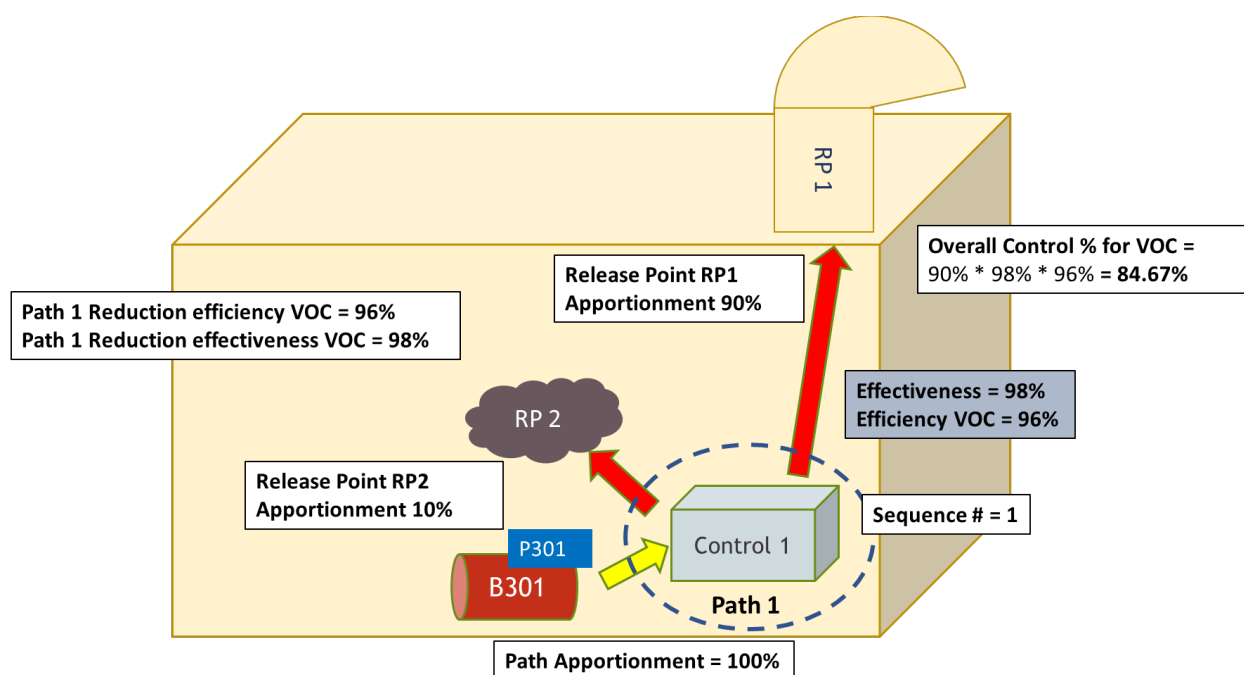


Table A. 2. Example Path Data for a Facility with a Single Control

Path ID	Sequence Number	Assignment (Control of Path)	Apportionment (Control or Path)
Path 1	1	Control Device 1	100%

Table A. 3. Example Associations for a Facility with a Single Control

Unit ID	Process ID	Path ID	Release Point ID	Release Point Apportionment
B301	P301	Path 1	RP1	95%
B301	P301	Path 1	RP2	5%

A. 3 Example of a Facility with Controls in Series

Figure A. 3 shows an example of a facility with control devices in series. Assume there is one process per unit, Process 1 and Process 2 for Boiler 1 and Boiler 2 respectively. In this case, there are three control devices plus a fourth on one of the stacks. Controls 2 and 3 have been placed in Path 1. Parent Path 2 contains Control Device 1 and Child Path 1.

How you configure your controls into paths depends on how your controls are configured in the facility, bearing in mind that in some cases there may be more than one way to create paths and main paths. There should ultimately be one main path between a process and a release point. In this case, that primary path is Path 2. If more than one process is being run from the unit to the release point, then all the processes would be associated with the same control path in the same manner as Process 1.

Figure A. 3. Example of a Facility with Controls in Series

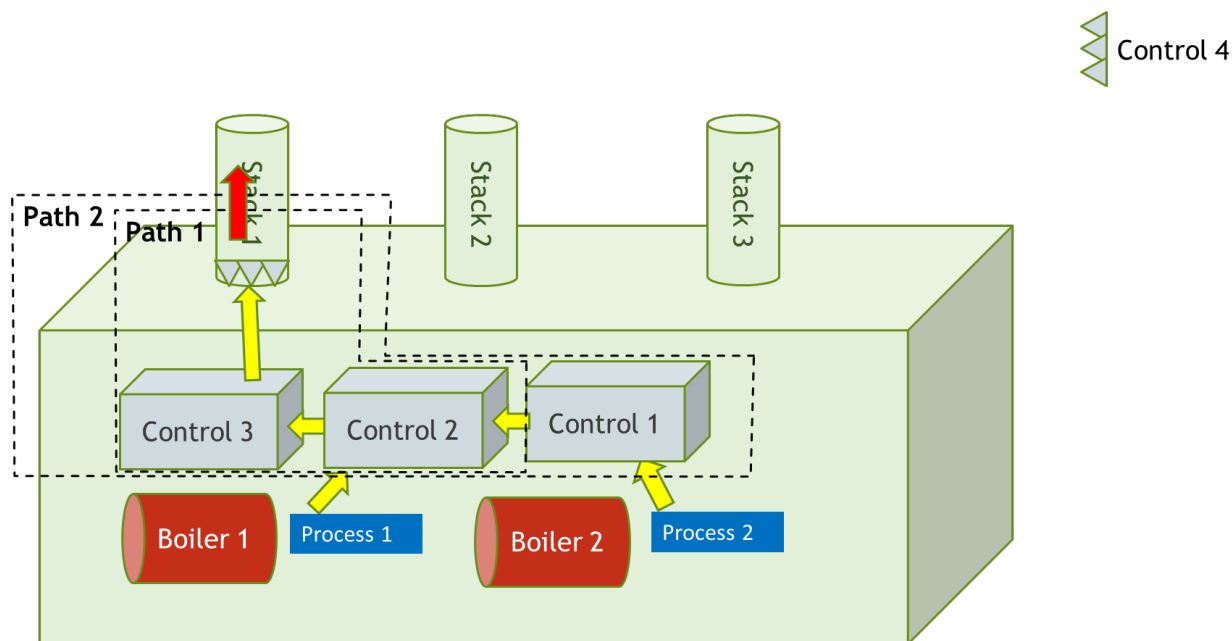


Figure A. 4 shows the conceptual configuration of the facility in this example. The emissions flow directly from one control to the other. Thus, the control apportionment for Control 1 to Path 1 is 100%, and the control apportionment for each control within Path 1 is 100%. In Path 1, Control 2 is first in the sequence, Control 3 is second. In Path 2, Control 1 is first in the sequence, Path 1 is second in the sequence, and, and Control 4 is third. Table A. 4 shows s control devices and some examples of values for the relevant data fields. Table A. 5 shows the assignment for this facility.

Table A. 6 shows the associations for the different sub-facility components. Also, note that all emissions enter Stack 1 after leaving Path 2 (as indicated by the red arrow). Finally, 100% of emissions from Process 1 move to Stack 1, and 100% of emissions from Process 2 are also routed to Stack 1. In this example, we have assumed that capture is 100% (there are no fugitive emissions).

Figure A. 4. Conceptual Configuration for a Facility with Controls in Series

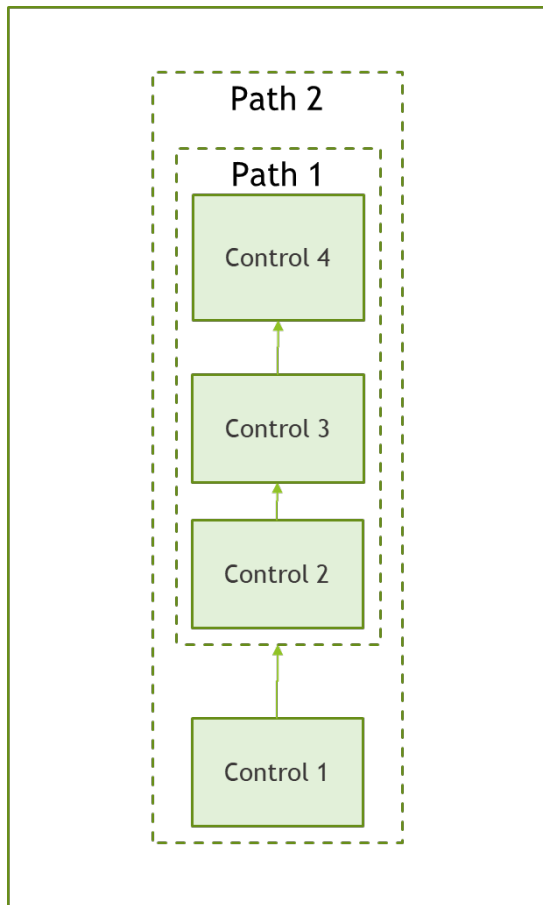


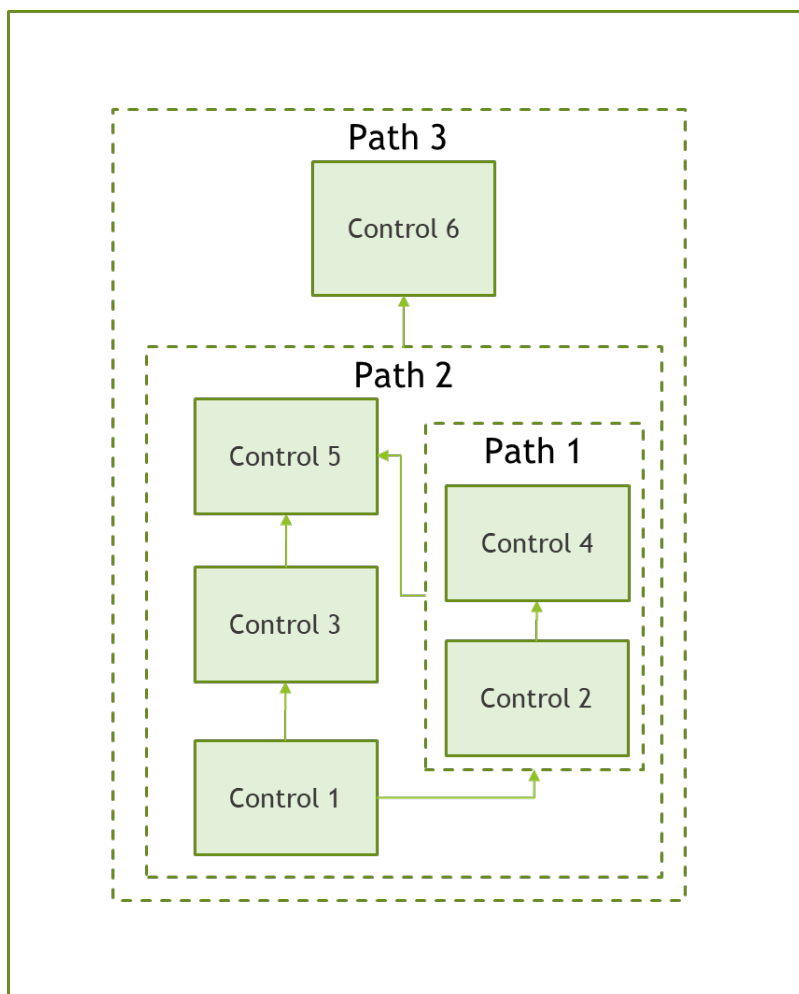
Table A. 4. Example Control Device Data for a Facility with Controls in Series

Control ID	% Effectiveness	Pollutant	% Efficiency	Overall % Reduction
Control 1	95%	VOC	80%	76%
Control 1	-	CO	95%	90%
Control 2	90%	PM10-PRI	90%	81%
Control 2	-	PM-CON	100%	90%
Control 3	90%	NOX	90%	81%
Control 4	90%	SO2	90%	81%

Table A. 5. Example Path Data for a Facility with Controls in Series

Path ID	Sequence Number	Assignment (Control of Path)	Apportionment (Control or Path)
Path 1	1	Control 2	100%
Path 1	2	Control 3	100%
Path 1	3	Control 4	100%
Path 2	1	Control 1	100%

Figure A. 6. Path Assignment for a Facility with Complex Controls



Example values for the different data fields for the control devices in this example are shown in Table A. 8. How the different sub-facility components are associated is shown in Table A. 9. Note that 50% of emissions from Process 1 go to Stack 1, and 50% of emissions from Process 1 went to Stack 3 (as indicated by the red arrows in Figure A. 5).

Table A. 7. Example Control Device Data for a Facility with Complex Configuration

Control ID	% Effectiveness	Pollutant	% Efficiency	Overall % Reduction
Control 1	95%	VOC	80%	68%
Control 2	90%	PM10-PRI	90%	81%
Control 2	-	PM-CON	100%	90%
Control 3	90%	CO	95%	86%
Control 4	95%	NOX	99%	75%
Control 5	90%	Pb	95%	81%
Control 6	98%	SO2	97%	95%

Table A. 8. Example Path Data for a Facility with Complex Configuration

Path ID	Sequence Number	Assignment (Control of Path)	Apportionment (Control or Path)
Path 1	1	Control 2	100%
Path 1	2	Control 4	100%
Path 2	1	Control 1	100%
Path 2	2	Control 3	40%
Path 2	2	Path 1	60%
Path 2	3	Control 5	100%
Path 3	1	Path 2	100%
Path 3	2	Control 6	100%

Table A. 9. Example Associations for a Facility with Complex Configuration

Unit ID	Process ID	Path ID	Release Point ID	Release Point Apportionment
Boiler 2	Process 1	Path 2	Stack 3	47%
Boiler 2	Process 1	Path 3	Stack 1	47%
Boiler 2	Process 1	Path 2	Fugitive	3%
Boiler 2	Process 1	Path 3	Fugitive	3%

A. 5 Additional Examples of Control and Path Assignments

The following are examples that further illustrate unique situations and how reporters may handle them in CAERS.

Example 1: Planer Mill Cyclofilter (single control)

Figure A. 7 shows an example of a single control where a Planer Mill Cyclofilter is used. In this case there is only one control, and it should be placed in one path. All processes (planer and planer trim block hog) should be associated with that path and the corresponding release point. Table A. 9 and Table A. 10 show path and association data respectively.

Figure A. 7. Planer Mill Cyclofilter Path Assignment

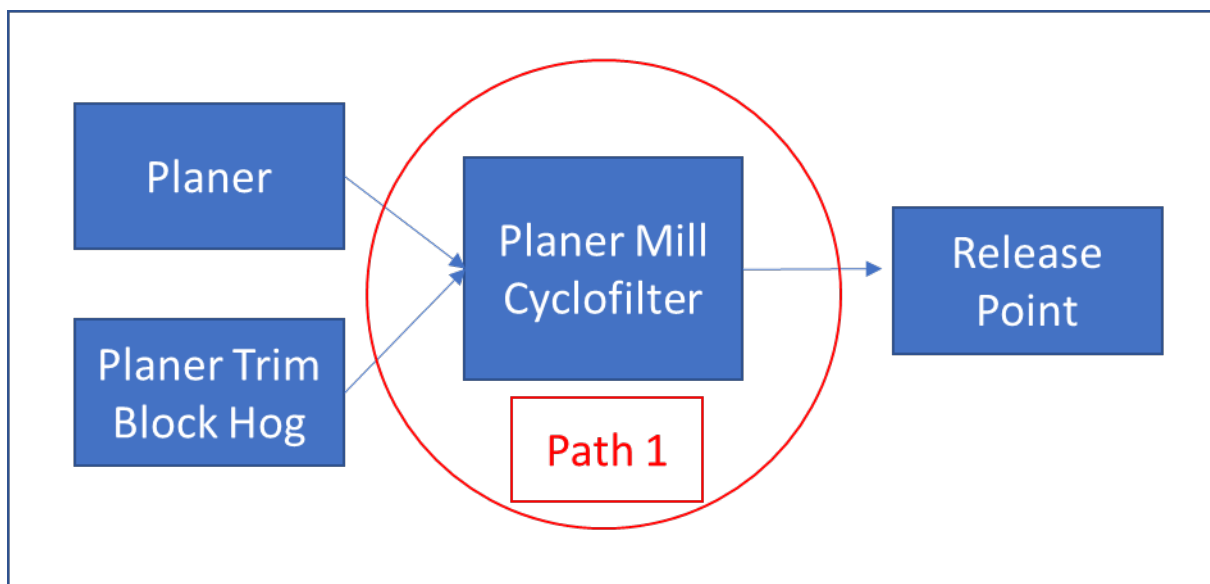


Table A. 10. Path Data for Planer Mill Cyclofilter

Path ID	Sequence Number	Assignment (Control of Path)	Apportionment (Control or Path)
Path 1	1	Planer Mill Cyclofilter	100%

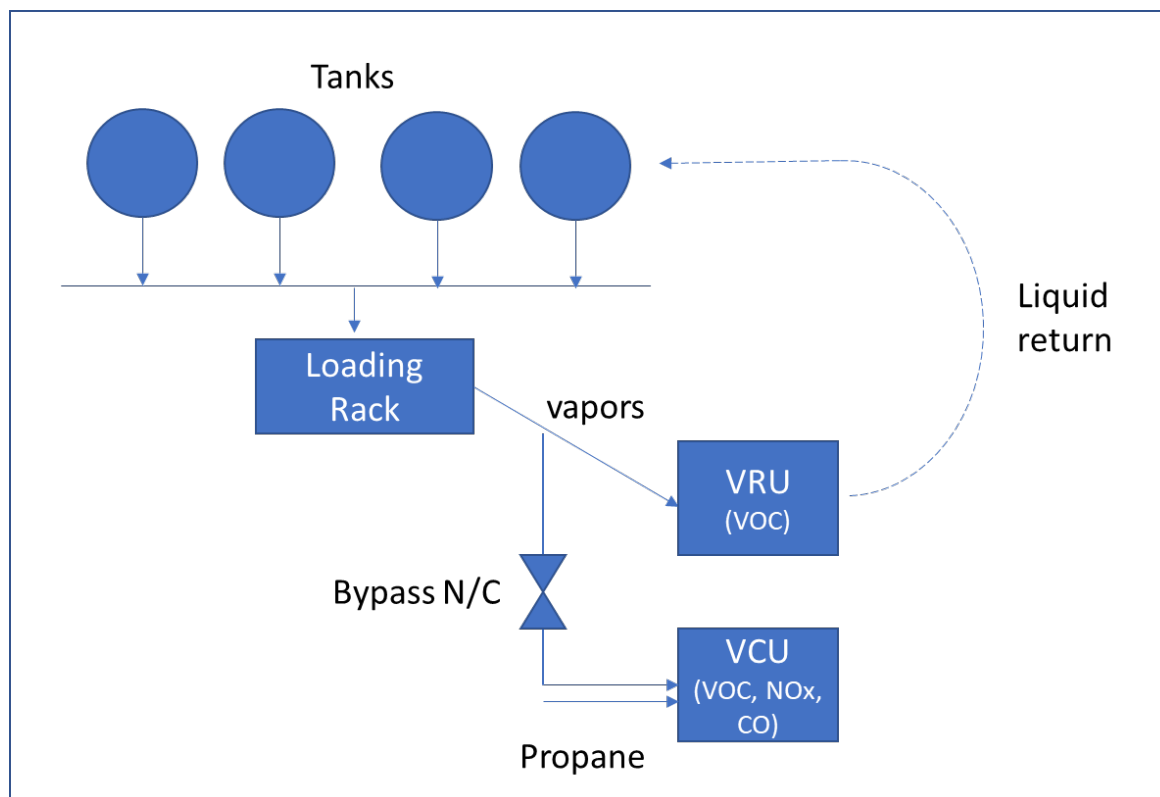
Table A. 11. Associations for Planer Mill Cyclofilter

Unit ID	Process ID	Path ID	Release Point ID	Release Point Apportionment
Planer	Process 1	Path 1	Stack 1	100%
Planer Trim Block Hog	Process 2	Path 1	Stack 1	100%

Example 2: Controls Working Alternately Example

In this example, emissions go from a loading rack to a vapor combustor unit (VCU) or a vapor recovery unit (VRU), but not to both. There are VOC emissions from the VRU. When the VRU is used, the emissions go to a stack. The VCU works when the VRU is not working. The VCU is a backup to the VRU, and in this example, assume it only works 1% of the time. However, when each one of these controls is working, it takes in 100% of the emissions. When the VCU is operating, the emissions are flared. The VCU uses propane, so its emissions are VOC as well as NOX and CO. See Figure A. 8

Figure A. 8. Example for Controls Working Alternately



In this case, while the vapors could go to either the VRU or the VCU, because of the use of propane in the VCU, we effectively have two different processes with two different SCCs (Figure A. 9). Furthermore, each process is going to a different release point. Specific information about the number of hours each component is working would be entered in with the process information. For example, the number of hours that each is run. Note that because in this case the original process has been divided in two processes to run through each of the two control devices, effectiveness for each would be 100% and you would enter the hours that each control runs. Table A. 11 and Table A. 12 show path and association data respectively.

Figure A. 9. Path Assignment for Controls Working Alternately

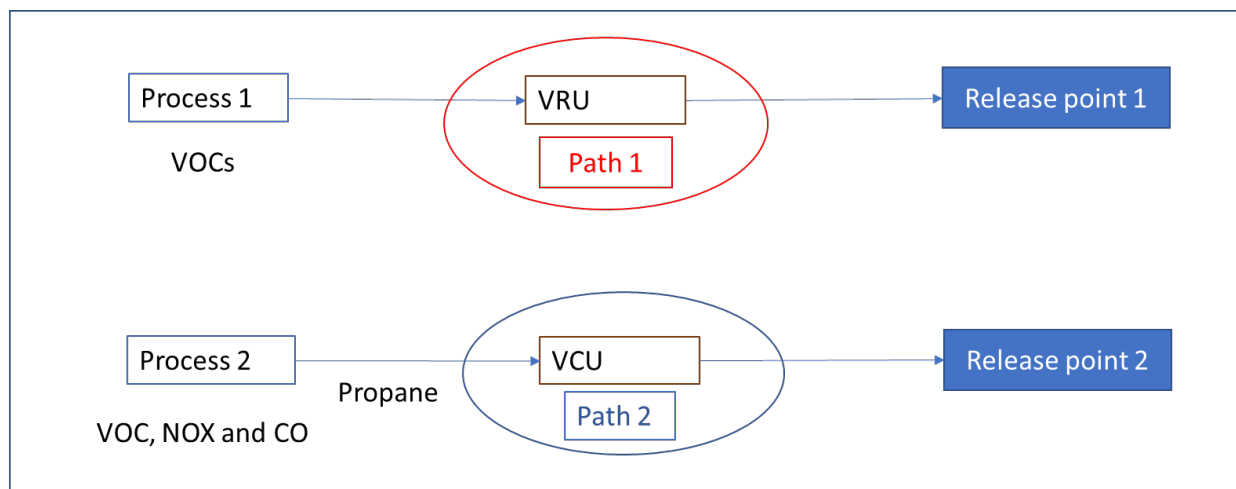


Table A. 12. Path Data for Controls Working Alternately

Path ID	Sequence Number	Assignment (Control of Path)	Apportionment (Control or Path)
Path 1	1	VRU	100%
Path 2	1	VCU	100%

Table A. 13. Associations for Controls Working Alternately

Unit ID	Process ID	Path ID	Release Point ID	Release Point Apportionment
Unit 1	Process 1	Path 1	Release Point 1	100%
	Process 2	Path 2	Release Point 2	100%

A. 6 Example of Controls Calculations

The following example may help you understand how the different percentages involved in controls calculations are related. This example may help you estimate your “Overall Control %” for your individual control and/or control path. The example is illustrative, you should work with your SLT authority to determine the best way to do these calculations for your specific control device configuration.

The following definitions are used in this example:

Percent Release Point Apportionment: The percent of an exhaust gas stream moving from a process to a release point (stack or fugitive) and routed through controls when they are present. This value could be obtained from the vendor or measured at the facility. The percent apportioned to stack release points is also referred to as *capture efficiency*. Any emissions that are not captured by the device and routed to stack release points should be apportioned to a fugitive release point.

Percent Control Effectiveness: The percentage of time or activity throughput that a control approach is operating as designed, including the capture and pollutant reduction devices. This percentage accounts for the fact that controls typically are not 100 percent effective because of equipment downtime, upsets and decreases in control efficiencies. This value could be estimated from the amount of time the control is operational, versus down for maintenance or repairs. For example, assume that an emissions process ran for 2,000 hours and the control was down for 200 hours, then the Control Effectiveness = $(2000-200) / (2000) * 100 = 90\%$.

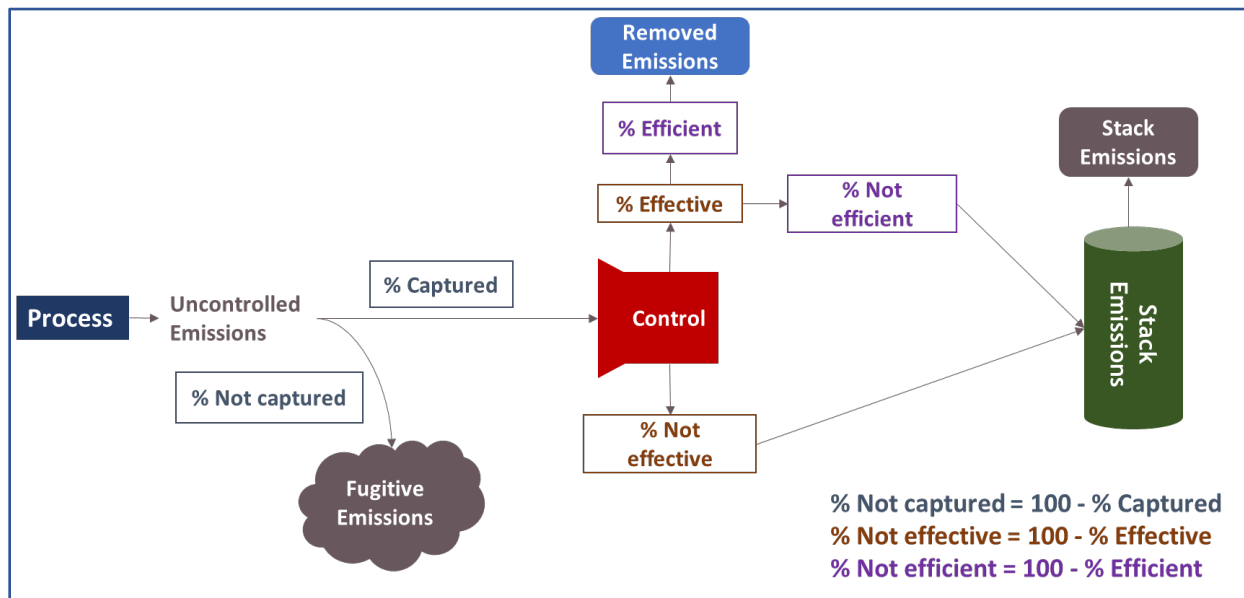
Percent Pollutant Reduction Efficiency: The percent reduction achieved for the pollutant when all control measures are operating as designed. This could be obtained from the vendor. For example, the device, when fully operational as intended, removes 95% of the pollutant, so its pollutant reduction efficiency is 95%.

Controlled emissions are post-control emissions: the emissions that remain, vented through stack release points, after emissions have been captured by the device, the device has operated at its effectiveness, and efficiency.

Assume you have a control or control path for Particulate Matter with the following:

- Stack Release Point Apportionment (cap) is 90%,
- Control effectiveness (effect) is 80%,
- Control efficiency (effic) is 95%, and
- Uncontrolled (unc) or pre-control emissions total 100 tons.

Figure A. 10. Flow of Uncontrolled Emissions



Then:

Total uncontrolled emissions = captured emissions + fugitive (non-captured emissions) = $[unc \times cap] + [unc \times (1-cap)]$.

Captured emissions= emissions when control is not effective + emissions when control is effective = $[\text{unc} \times \text{cap} \times (1-\text{effect})] + [\text{unc} \times \text{cap} \times (\text{effect})]$

Emissions when control is effective = emissions reduced from control efficiency (removed emissions) + emissions from control inefficiency = $[\text{unc} \times \text{cap} \times (\text{effect}) \times \text{effic}] + [\text{unc} \times \text{cap} \times (\text{effect}) \times (1-\text{effic})]$

Emissions going to stacks = emissions when control is not effective + emissions from effective control inefficiency = $[\text{unc} \times \text{cap} \times (1-\text{effect})] + [\text{unc} \times \text{cap} \times \text{effect} \times (1-\text{effic})] = \text{unc} \times \text{cap} [(1-\text{effect}) + \text{effect} \times (1-\text{effic})] = \text{unc} \times \text{cap} (1-\text{effect} + \text{effect} \times \text{effic}) = \text{unc} \times \text{cap} \times (1-\text{effect} \times \text{effic})$

Fugitive emissions = $100 \times (1-0.9) = 10$

Stack emissions = $100 \times 0.9 \times (1-0.8 \times 0.95) = 21.6$

Removed emissions = $\text{unc} \times \text{cap} \times \text{effect} \times \text{effic} = 100 \times 0.9 \times 0.8 \times 0.95 = 68.4$

Controlled emissions = $[\text{unc} \times (1-\text{cap})] + [\text{unc} \times \text{cap} \times (1-\text{effect} \times \text{effic})] = \text{unc} \times (1-\text{cap} + \text{cap} - \text{cap} \times \text{effect} \times \text{effic}) = \text{unc} \times (1-\text{cap} \times \text{effect} \times \text{effic}) = 100 \times (1-(0.9 \times 0.8 \times 0.95)) = 31.6$

Total uncontrolled emissions = Removed emissions + Stack emissions + Fugitive emissions = $68.4 + 21.6 + 10 = 100$

Appendix B Types of Fugitive Release Points

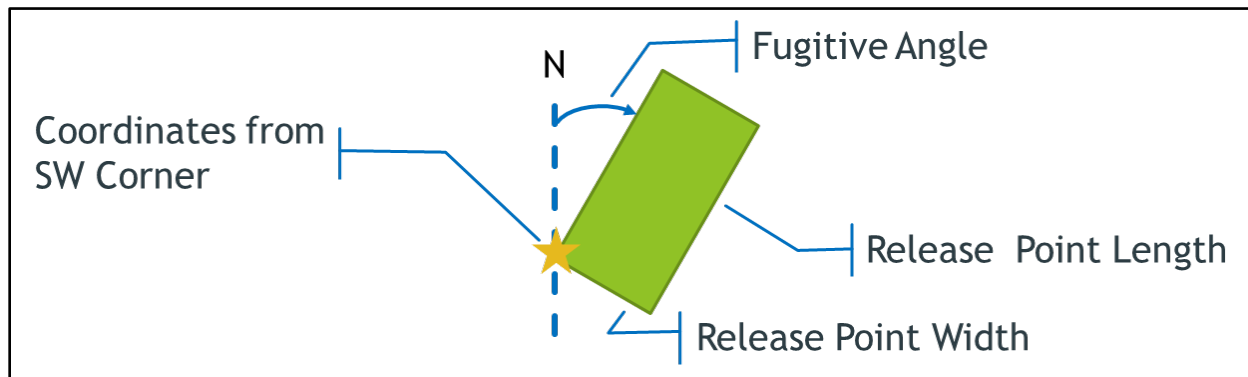
EPA is moving to have more detailed representations of fugitive emissions. While in the past data has only been entered using the “Fugitive – Area” format, there are now two new ways that you can enter your fugitive emissions data, in addition to the current form of representation. When you choose the format you will use, you will only need to enter data required by that format. Below are the three types of fugitives for the reporter to select.

1. Fugitive – Area

This is the current format for entering fugitive release point data. The reporter is asked to enter:

1. Fugitive “Area” Release Point
 - Width
 - Length
 - Height
 - Latitude from South-West corner of the facility blueprint
 - Longitude from South-West corner Longitude
 - Angle of Measure

Figure B. 1. Graphical Representation of Current "Area" Fugitive Release Points



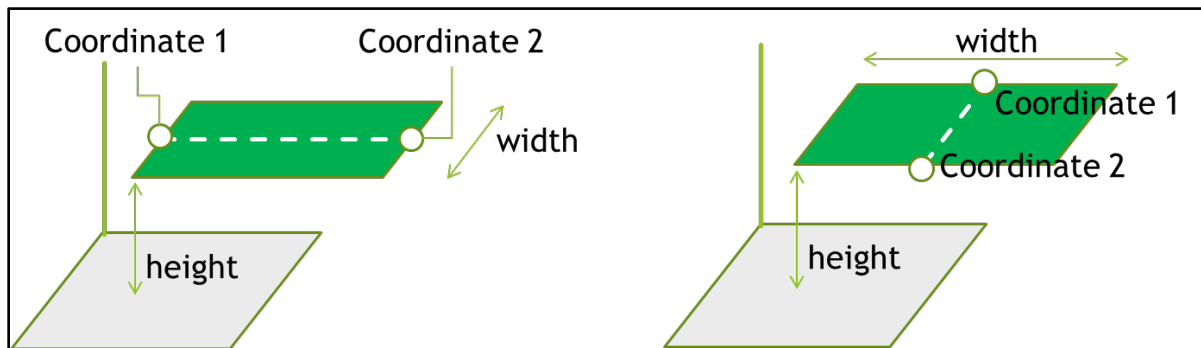
2. 2-Dimensional Fugitive Release Points

This is an updated version of a Fugitive “Area” representation as described above. Examples of 2-Dimensional release points include: a single elongated roof (horizontal) vent, opening, or window, typically greater than or equal to 10 square feet, or a wastewater holding pond for building fugitives, typically greater than 10 square feet. Data fields to be reported for this type of release point are:

- Height
- Width
- Two Sets of Coordinates (Latitude/Longitude of the Midpoints of Opposing Sides of Source). These should be within a default tolerance of 0.003, from the facility latitude and longitude. If you feel your fugitive coordinates should be allowed beyond the default tolerance, please contact your SLT as soon as possible.
 - Coordinate 1 Latitude
 - Coordinate 1 Longitude
 - Coordinate 2 Latitude

- Coordinate 2 Longitude

Figure B. 2. Graphical Representation of 2-Dimensional Fugitive Release Points

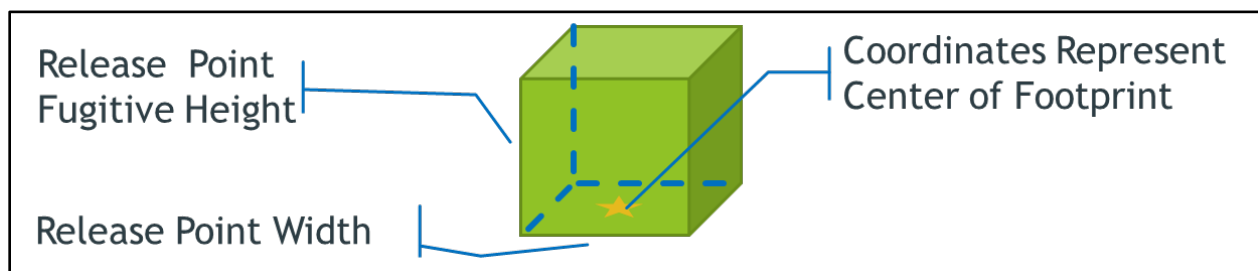


3. Graphical Representation of 3-Dimensional Fugitive Release Points

Unlike two-dimensional release points that emit only at a specific height, the emissions from three-dimensional release points are emitted across the entire height of the release point. Typically, a single vertical window should be reported as a “low flow vent” type of release point, unless there are multiple windows of that nature in which case the 3D fugitive type is more appropriate.

Examples of this type of release point include: an entire building with multiple release point on walls and/or roof where each release point could not be easily identified by using many low-flow-vent release points, and an outdoor storage pile. The assumption is that the base of the release point is square. While the shape of a storage pile, for example, is unlikely to be a shape with a square base, reporters should simply set the width and length so that the horizontal dimension represents or encompasses, as best as possible, the actual shape and set the height to represent the height span of the release. If the release is not a square shape, the length and width must be set as best as possible to represent the actual shape of the source, since width and length are required to be the same.

Figure B. 3. Graphical Representation of 3-Dimensional Fugitive Release Points



Data fields to be reported for this type of release point are:

- Height
- Width
- Latitude of the footprint center
- Longitude of the footprint center

Additional Considerations: Dimensions for height, width, and length (as the case may be) are expected to be greater than 0. Also, latitude and longitude values are expected to be within a 0.003 tolerance of

the facility latitude and longitude coordinates. If you feel that the release point coordinates for your facility should be allowed beyond that default tolerance, please get in touch with your SLT as soon as possible.

Appendix C Additional Resources

C. 1 Heat Content for Energy Conversions

The following is a list of default heat content values for energy conversions for a variety of fuels. You should reach out to your SLT to determine the best approach for your specific fuel type and fuel use, as these default values may not be appropriate for you to use under your specific circumstances.

Table C. 1. Default Heat Values for Fuels

Fuel Name	Default High Heat Value	Units of Measure	Source
Anthracite	25.09	Million BTU/Short Ton	GHGRP
Anthracite Culm	11.513	Million BTU/Short Ton	EIA A5
Bagasse at 50% moisture	4000	BTU/Pound	AP42 AA
Bark at 50% moisture	4,500	BTU/Pound	AP42 AA
Bituminous Coal	24.93	Million BTU/Short Ton	GHGRP
Bituminous/Subbituminous Coal	17.25	Million BTU/Short Ton	GHGRP
Butane	0.103	Million BTU/Gallon	GHGRP
Coal	19.292	Million BTU/Short Ton	EIA A5
Coal Mixed (Commercial sector)	21.39	Million BTU/Short Ton	GHGRP
Coal Mixed (Industrial coking)	26.28	Million BTU/Short Ton	GHGRP
Coal Mixed (Industrial sector)	22.35	Million BTU/Short Ton	GHGRP
Coal Mixed (Electric Power sector)	19.73	Million BTU/Short Ton	GHGRP
Coke	24.8	Million BTU/Short Ton	EIA A5
Coke Mixed (Commercial sector)	21.39	Million BTU/Short Ton	GHGRP
Coke Mixed (Industrial coking)	26.28	Million BTU/Short Ton	GHGRP
Coke Mixed (Industrial sector)	22.35	Million BTU/Short Ton	GHGRP
Coke Mixed (Electric Power sector)	19.73	Million BTU/Short Ton	GHGRP
Coke Petroleum Coke	30	Million BTU/Short Ton	GHGRP
Coke Oven Gas	590	BTU/Dry Standard Cubic Feet	AP42 AA
Crude Oil	0.138	Million BTU/Gallon	GHGRP
Digester Gas	0.619	Million BTU/Thousand Dry Standard Cubic Feet	EIA RNW
Distillate Oil Average	5.771	Million BTU/Barrel	EIA A3
Distillate Oil 15ppm sulfur and under	5.7	Million BTU/Barrel	EIA A1

Fuel Name	Default High Heat Value	Units of Measure	Source
Distillate Oil > 15 ppm to 500 ppm sulfur	5.817	Million BTU/Barrel	EIA A1
Distillate Oil >500 ppm sulfur	5.825	Million BTU/Barrel	EIA A1
Distillate Oil Diesel (15 ppm sulfur and under)	137381	BTU/Gallon	EIA CC
Distillate Oil No. 1	0.139	Million BTU/Gallon	GHGRP
Distillate Oil No. 2	0.138	Million BTU/Gallon	GHGRP
Distillate Oil No. 4	0.146	Million BTU/Gallon	GHGRP
Gas Blast Furnace Gas	0.092 × 10 ⁻³	Million BTU/Dry Standard Cubic Feet	GHGRP
Gas Coke Oven Gas	0.599 × 10 ⁻³	Million BTU/Dry Standard Cubic Feet	GHGRP
Gas Fuel Gas 4	1.388 × 10 ⁻³	Million BTU/Dry Standard Cubic Feet	GHGRP
Gas Other Biomass Gases	0.655 × 10 ⁻³	Million BTU/Dry Standard Cubic Feet	GHGRP
Gasoline	5.222	Million BTU/Barrel	EIA A1
Gasoline Natural Gasoline	0.11	Million BTU/Gallon	GHGRP
Gasoline Motor Gasoline	0.125	Million BTU/Gallon	GHGRP
Gasoline Aviation Gasoline	0.12	Million BTU/Gallon	GHGRP
Kerosene-Type Jet Fuel	0.135	Million BTU/Gallon	GHGRP
Kerosene-Type Jet Fuel	5.67	Million BTU/Barrel	EIA A1
Special Naphtha	0.125	Million BTU/Gallon	GHGRP
Naphtha Type Jet Fuel	5.355	Million BTU/Gallon	EIA A1
Kerosene	0.135	Million BTU/Gallon	GHGRP
Landfill Gas	0.485 × 10 ⁻³	Million BTU/Dry Standard Cubic Feet	GHGRP
Lignite	14.21	Million BTU/Short Ton	GHGRP
Liquid Waste Rendered Animal Fat	0.125	Million BTU/Gallon	GHGRP
Liquid Waste Vegetable Oil	0.12	Million BTU/Gallon	GHGRP
Liquid Waste Ethanol	0.084	Million BTU/Gallon	GHGRP
Liquid Waste Biodiesel (100%)	0.128	Million BTU/Gallon	GHGRP
Liquid Waste Black Liquor	11.758	Million BTU/Short Ton	EIA RNW
Liquid Waste Waste Alcohol	3.800	Million BTU/Barrel	EIA RNW
Liquified Petroleum Gas (LPG)	0.092	Million BTU/Gallon	GHGRP
Natural Gas (Weighted U.S. Average)	1.026 × 10 ⁻³	Million BTU/Dry Standard Cubic Feet	GHGRP

Fuel Name	Default High Heat Value	Units of Measure	Source
Natural Gas Methane	0.841	Million BTU/Thousand Dry Standard Cubic Feet	EIA RNW
Propane Gas	2.516×10^{-3}	Million BTU/Dry Standard Cubic Feet	GHGRP
Natural Gas Liquids Ethane 1	0.068	Million BTU/Gallon	GHGRP
Natural Gas Liquids Isobutane 1	0.099	Million BTU/Gallon	GHGRP
Natural Gas Liquids Natural Gasoline	0.11	Million BTU/Gallon	GHGRP
Oil Used Oil	0.138	Million BTU/Gallon	GHGRP
Oil Unfinished Oils	0.139	Million BTU/Gallon	GHGRP
Oil Heavy Gas Oils	0.148	Million BTU/Gallon	GHGRP
Oil Lubricants	0.144	Million BTU/Gallon	GHGRP
Oil Asphalt and Road Oil	0.158	Million BTU/Gallon	GHGRP
Petroleum Liquid Other Oil (>401 deg F)	0.139	Million BTU/Gallon	GHGRP
Petroleum Liquid Pentanes Plus	0.11	Million BTU/Gallon	GHGRP
Petroleum Liquid Petrochemical Feedstocks	0.125	Million BTU/Gallon	GHGRP
Petroleum Liquid Butylene 1	0.105	Million BTU/Gallon	GHGRP
Petroleum Liquid Ethylene 2	0.058	Million BTU/Gallon	GHGRP
Petroleum Liquid Isobutylene 1	0.103	Million BTU/Gallon	GHGRP
Petroleum Liquid Still Gas	0.143	Million BTU/Gallon	GHGRP
Naphtha (<401 deg F)	0.125	Million BTU/Gallon	GHGRP
Propylene	0.091	Million BTU/Gallon	GHGRP
Blast Furnace Gas	0.092×10^{-3}	Million BTU/Dry Standard Cubic Feet	GHGRP
Process Gas	0.599×10^{-3}	Million BTU/Dry Standard Cubic Feet	GHGRP
Landfill Gas	0.485×10^{-3}	Million BTU/Dry Standard Cubic Feet	GHGRP
Methane	0.841	Million BTU/Thousand Cubic Feet	EIA RNW
Propane	0.091	Million BTU/Gallon	GHGRP
Residual Oil No. 5	0.14	Million BTU/Gallon	GHGRP
Residual Oil No. 6	0.15	Million BTU/Gallon	GHGRP
Sludge Waste	7.512	Million BTU/Short Ton	EIA RNW
Sludge Wood	10.071	Million BTU/Short Ton	EIA RNW
Solid Waste Municipal Solid Waste	9.95 3	Million BTU/Short Ton	GHGRP
Solid Waste Agricultural Byproducts	8.25	Million BTU/Short Ton	GHGRP
Solid Waste Peat	8	Million BTU/Short Ton	GHGRP
Solid Waste Solid Byproducts	10.39	Million BTU/Short Ton	GHGRP
Solid Waste Tires	28	Million BTU/Short Ton	GHGRP

Fuel Name	Default High Heat Value	Units of Measure	Source
Solid Waste Plastics	38	Million BTU/Short Ton	GHGRP
Solid Waste Agricultural Byproducts	8.248	Million BTU/Short Ton	EIA RNW
Solid Waste MSW Biogenic	9.696	Million BTU/Short Ton	EIA RNW
Solid Waste Paper Pellets	13.029	Million BTU/Short Ton	EIA RNW
Solid Waste Railroad Ties	12.618	Million BTU/Short Ton	EIA RNW
Solid Waste Solid Byproducts	25.830	Million BTU/Short Ton	EIA RNW
Solid Waste Spent Sulfite Liquor	12.720	Million BTU/Short Ton	EIA RNW
Solid Waste Utility Poles	12.500	Million BTU/Short Ton	EIA RNW
Subbituminous	17.25	Million BTU/Short Ton	GHGRP
Wood and Wood Residuals (dry basis)	17.48	Million BTU/Short Ton	GHGRP

Energy Conversion Sources:

- EIA CC: <https://www.eia.gov/energyexplained/units-and-calculators/energy-conversion-calculators.php>
- EIA A1-A5: <https://www.eia.gov/totalenergy/data/monthly/#appendices>
- EIA RNW: https://www.eia.gov/renewable/annual/trends/pdf/table1_10.pdf
- GHGRP: Table C-1 to Subpart C of part 98'; <https://www.epa.gov/sites/production/files/2015-06/documents/ghg-mrr-finalrule.pdf>
- AP42 AA: <https://www3.epa.gov/ttnchie1/ap42/appendix/appa.pdf>

C. 2 Unit Conversions in the CAER System

The following is a list of simple conversions that the CAER system can perform on units of measure to the level of detail (decimal values) that the form is performing them:

Table C. 2. List of Simple Unit of Measure Conversions in CAERS

Type of conversion:	Amount to convert from:	Units to convert from:	Amount to convert to (application conversion):	Units to convert to:
Area	1	ACRES	43560	SQUARE FEET
Area	1	SQUARE YARDS	9	SQUARE FEET
Area	1	ACRES	4840	SQUARE YARDS
Length	1	MILES	5280	FEET
Mass	1	KILOGRAMS	1000	GRAMS
Mass	1	POUNDS	0.45359237	KILOGRAMS

Type of conversion:	Amount to convert from:	Units to convert from:	Amount to convert to (application conversion):	Units to convert to:
Mass	1	GRAMS	0.000001	MEGAGRAMS
Mass	1	KILOGRAMS	.001	MEGAGRAMS
Mass	1	POUNDS	.00045359237	MEGAGRAMS
Mass	1	GRAMS	1000000	MICROGRAMS
Mass	1	KILOGRAMS	1000000000	MICROGRAMS
Mass	1	POUNDS	453592370	MICROGRAMS
Mass	1	MEGAGRAMS	1E+12	MICROGRAMS
Mass	1	MILLIGRAMS	1000	MICROGRAMS
Mass	1	NANOGRAMS	0.001	MICROGRAMS
Mass	1	TONS	907,184,740,000	MICROGRAMS
Mass	1	GRAMS	1000	MILLIGRAMS
Mass	1	KILOGRAMS	1000000	MILLIGRAMS
Mass	1	POUNDS	453592.37	MILLIGRAMS
Mass	1	MEGAGRAMS	1000000000	MILLIGRAMS
Mass	1	GRAMS	1000000000	NANOGRAMS
Mass	1	KILOGRAMS	1E+12	NANOGRAMS
Mass	1	POUNDS	453592370000	NANOGRAMS
Mass	1	MEGAGRAMS	1E+15	NANOGRAMS
Mass	1	MILLIGRAMS	1000000	NANOGRAMS
Mass	1	GRAMS	.0022046226218488	POUNDS
Mass	1	TONS	2000	POUNDS
Mass	1	GRAMS	.000001102311310924388	TONS
Mass	1	KILOGRAMS	.0011023113109244	TONS
Mass	1	MEGAGRAMS	1.102311310924388	TONS
Mass	1	MILLIGRAMS	.000000001102311310924388	TONS
Mass	1	NANOGRAMS	.000000000000001102311310924388	TONS
Volume	1	DRY STANDARD CUBIC FEET	.028316846592	DRY STANDARD CUBIC METERS
Volume	1	GALLONS	.00378541178	DRY STANDARD CUBIC METERS
Volume	1	DRY STANDARD CUBIC FEET	.037037037037037	CUBIC YARDS
Volume	1	GALLONS	.004951131682011	CUBIC YARDS
Volume	1	CUBIC METERS	1.307950619314392	CUBIC YARDS
Volume	1	DRY STANDARD CUBIC FEET	7.480519488424055	GALLONS

C. 3 Volume Conversions for Natural Gas

Volumetric conversions of natural gas depend on the physical conditions of the natural gas as follows.

To convert the volume of natural gas below 60 psia:

Under these conditions the Ideal Gas Law can be applied. Subscript 1 indicates gas at one set of conditions of absolute temperature (T) in degrees Rankine (°R), and absolute pressure (P) in pounds per square inch absolute (psia), subscript 2 indicates the same gas at a different set of conditions for the gas.

$V_1 = T_1/P_1 (P_2 V_2/T_2)$, to get V1 in cubic feet (cf).

A dry standard cubic foot (scf) of gas is defined as a cubic foot at a temperature of 21 °C (70 °F or 530 °R) and a pressure of 101.325 kilopascals [kPa] (14.696 psia), except for liquefied petroleum gas.

Therefore, if converting from a gas with volume V2 at standard cubic feet of gas to V1, the formula to apply would be:

$$V_1 = T_1/P_1 (14.696 \times V_2)/530$$

To convert the volume of natural gas above 60 psia:

Natural gas does not behave like an ideal gas in this case. The formula requires a compressibility factor (Z).

$V_1 = V_2(Z_1 T_1 P_2)/(Z_2 T_2 P_1)$, to get V1 in cf,

where Z1/Z2 is the compressibility ratio.

For example: If converting from a gas with volume V2 at 60 °F (or 520 °R) and 14.73 psia to another volume, the formula would be:

$$V_1 = V_2(Z_1 \times T_1 \times 14.73)/(Z_2 \times 520 \times P_1)$$

Sources:

Paul R. Ludtke, Natural Gas Handbook, National Bureau of Standards, U.S. Department of Commerce, Boulder, CO, August 1986. p 14.

NIST, Uniform Laws and Regulations in the Areas of Legal Metrology and Engine Fuel Quality (2017 ed.). National Institute of Standards and Technology (NIST). November 2016. p. 120.
doi:10.6028/NIST.HB.130-2017. Retrieved 21 November 2017.

C. 4 State Emission Factor Compendium

If your SLT Authority allows it, you may use emission factors available from other states. To browse the Emission Factor Compendium, go to the [CAER website](#) and look under the “Development of a State-Local-Tribal Emission Factors Compendium”. You will find three spreadsheets (from Minnesota, Michigan and South Carolina), that may contain an emission factor your SLT deems appropriate for you to use.

Appendix D CAERS Submission Checklist

While CAERS is equipped with many QA checks designed to prevent you from sending incorrect data to EPA and your SLT, there are still some checks that CAERS cannot run. You are encouraged to check this list to remove as many issues as possible that may delay your submission, and/or cause your report to be rejected by EPA's Emissions Inventory System if it finds additional errors. EPA reserves the right to send a report back to your SLT even if all these steps have been taken, if additional issues that are not listed here, appear in your report.

Before Entering CAERS

Item #	Before Entering CAERS, make sure you have:
1	Checked with your SLT that your facility should be reporting and that you have followed the process to register the relevant certifier for your facility.
2	Registered and have an account with CDX as preparer or certifier
-	Before Starting a Report or Downloading the Bulk Upload Template
3	Checked that your facility is listed in "My Facilities" page, or you have requested access to your facility
4	Checked that your facility information is correct in the User Interface before certifying the report and have reached out to the SLT to help with corrections only the SLT can make
5	Run the QA checks in the User Interface to see any new QA checks that need to be addressed in your report
6	Made any edits or corrections in the UI that you would prefer to do there, to have them appear in your Bulk Upload template
7	Set your facility's operating status as "Operating", and that the status year is not in conflict with a previously reported status year. E.g., you have not reported your facility as "TS" in 2024 but are now reporting it as "Operating" also in 2024
-	While Creating a Report
-	Bulk Upload Template
8	Not deleted entire rows in the template
9	Not replaced entire rows in the template
10	Not attempted to enter component IDs in columns where you must select them from the drop-down menu
-	All Reporting Methods
	Not deleted a component (e.g., unit, control) that existed in a previous report, but rather, have marked it as "PS" or "TS"
	Not re-labeled a component without marking the original with the original ID as "PS".
	Not created a brand-new component and then marked it as "TS" or "PS". Any new components must be operating
	For any components you have marked "PS" or "TS" you have also provided an "year operating status changed" that is greater than the last year you reported the component as operating
	For any process you have marked as "PS" or "TS" you have also provided a "year operating status changed" that is consistent with the operating status of its unit
	Not marked as "PS" or "TS" a component for the same year when that component operated and had emissions and is reporting emissions
	Put all controls in their respective paths and have no empty paths
	Cleared all critical quality checks and ensured all warnings are not an issue

Appendix E Monthly Reporting for Washington, D.C. Department of Energy and Environment Preparers and Certifiers

E. 1 Introduction

This section only applies to facilities reporting to Washington, D.C. Department of Energy and Environment (DOEE) as their SLT. Per DOEE requirement, facility reporters will be able to enter process and emissions data for specific processes on a monthly basis. Monthly reports are done during the calendar year of the inventory year they are reporting. At the beginning of the following year, data in monthly reports is used to populate the annual report in CAERS. Therefore, you should not attempt to start reporting monthly data until after you have completed your previous year inventory report to avoid inconsistencies in the two reports. For example, you would submit your 2023 inventory year annual report, and only after that would you start your 2024 monthly reports. Similarly, you would only begin your 2025 monthly reports after submitting the annual 2024 report.

E. 2 Entering Information for a Monthly Report

To start, look for the “Monthly Reporting” link on the left hand side of your screen (Figure E. 1.).

Figure E. 1. Monthly Reporting Link for DOEE Facilities

[My Facilities](#) > [Emissions Reports](#) > 2023 Emissions Report

Agency ID: 999999
My Facility Inc.
123 MyFacility Road
Washington, DC 99999
2023 Emissions Report
Agency: DOEE

Report Summary <
Report History
Quality Checks
Report Creation Log
Monthly Reporting
Data Bulk Entry
▼Facility Inventory
Facility Information
Emissions Units
Release Points
Control Devices
Control Paths
▼Emissions Inventory
▶ B201
▶ B202
▶ B301

Report Facility & Emissions Information

Pollutant	Type
Carbon Monoxide	CAP
Nitrous Oxide	GHG
PM2.5 Filterable	CAP
PM2.5 Primary (Filt + Cond)	CAP
Volatile Organic Compounds	CAP
Total Emissions (Tons)	--

Date	Role
------	------

<https://cdxappstest.epacdx.net/cef-web/#/facility/2070/report/2781/monthlyReporting>

That link will take you to a screen containing tabs for each month of the year, and tabs for the Semiannual Report and Annual Review (see Figure E. 2). Each month of the year has a “Process Information” tab, and an “Emissions Information” tab (for example, as shown in Figure E. 2 and Figure E. 3 for January). As you enter monthly data in these screens, the data will be saved and tallied up to the semiannual totals, and then the annual totals.

Figure E. 2. Monthly Reporting Process Information Tab

MyFacilities > Emissions Reports > 2023 Emissions Report

Agency ID: 999999
My Facility Inc.
123 MyFacility Road
Washington, DC 99999
2023 Emissions Report
Agency: DOE

Report Summary
Report History
Quality Checks
Report Creation Log
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Data Bulk Entry

Facility Inventory
Facility Information
Emissions Units
Release Points
Control Devices
Control Paths

Emissions Inventory
B201
B202
B301

Report Facility & Emissions Information Perform Quality Checks Submit to SLT Authority Approved by SLT Authority

Monthly Reporting

January February March April May June Semi-Annual Review July August
September October November December Annual Review

Process Information Emission Information

Unit ID	Process ID	SCC	Throughput Material	Throughput Value	Fuel Material	Fuel Value	Hours per Reporting Period	Avg. Hours per Day	Avg. Days per Week	Avg. Weeks per Reporting Period
B201	P201	10300101	Anthracite	2 TON	Anthracite	2 TON	100	5	5	4
B202	P202	10201302	Waste Oil	50 GAL	Waste Oil	50 GAL	40	8	5	1
B202	P202-1	10201302	Cans	10 E3EACH		50	40	8	5	1

Save Processes

Figure E. 3. Monthly Reporting Emissions Information Tab

MyFacilities > Emissions Reports > 2023 Emissions Report

Agency ID: 999999
My Facility Inc.
123 MyFacility Road
Washington, DC 99999
2023 Emissions Report
Agency: DOE

Report Summary
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Emissions Inventory
B201
B202
B301

Report Facility & Emissions Information Perform Quality Checks Submit to SLT Authority Approved by SLT Authority

Monthly Reporting

January February March April May June Semi-Annual Review July August
September October November December Annual Review

Process Information Emission Information

Unit ID	Process ID	Pollutant	Calculation Method	Monthly Rate	Emission Factor	Total Emissions
B201	P201	Carbon Monoxide	Continuous Emission Monitoring System	0.2	3 TON/TON	0.6 TON
		Nitrous Oxide	Other Emission Factor (no Control Efficiency used)		390 LB/TON	780 LB ✓
		Volatile Organic Compounds	Engineering Judgment			700 TON
B202	P202	PM2.5 Filterable	USEPA Emission Factor (no Control Efficiency used)		748.8 LB/E3GAL	37.44 LB ✓
		PM2.5 Primary (Filt + Cond)	Manufacturer Specification			20 LB
B202	P202-1	Carbon Monoxide	Site-Specific Emission Factor (no Control Efficiency used)		0.5 TON/E3EACH	5 TON ✓

Save Emissions

The first step in monthly reporting, is to ensure all unit, process, and pollutant information is present so that it will appear on the monthly reporting screens. Any processes in your facility that require monthly reporting will appear listed on the “Process Information” tab.

E. 3 Entering Process Information

If you have reported for DOEE in CAERS in previous years, the list of previously reported processes will be prepopulated for you. To edit existing units, process, and/or emissions information, you may click on the ID's for that unit, process, or pollutant. Once you have edited these in their respective screens, you may go back to the "Process Information" tab and enter the values for total throughput, fuel, hours, days, and weeks of operation. Once you have entered all relevant process information, click the "Save Processes" button and the system will update.

If you are adding a new unit, process, and/or pollutant on any given month, you will have to enter those in their own screens before you can proceed to enter monthly values for them (see Section 4.3 Emissions inventory for details about entering unit, process, and emissions data). You will not be able to enter a new unit, process, or pollutant directly in the monthly reporting screens.

Note that a new unit (Figure E. 4) and process (Figure E. 5) can be added for any month of the year when it first begins to operate. If the unit or process existed in a previous year, the initial reporting month for that inventory year will automatically appear as "January".

Figure E. 4. Initial Reporting Month for a Unit

My Facilities > Emissions Reports > 2023 Emissions Report

Agency ID: 999999
My Facility Inc.
123 MyFacility Road
Washington, DC 99999
2023 Emissions Report
Agency: DOEE

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▼ Facility Inventory
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▼ Emissions Inventory
► B201 ◀
► B202
► B301
► Mike

Report Facility & Emissions Information Perform Quality Checks Submit to SLT Authority Approved by SLT Authority

Emissions Unit Information

Unit ID: B201
Unit Type Code: Boiler
Unit Description: Boiler Building A
Unit Design Capacity: 200
Operating Status: Operating
Operating Status Year: 2017
Initial Reporting Month for 2023: January
Unit Design Capacity Unit: HP

Comments:

Cancel Save

Processes Associated with this Emissions Unit

Process ID	SCC	
P201	10300101	

Controls Associated with this Emissions Unit

Control	Description	Control Path
CTRLB		PTHB

EPA Home | MyCDX | Accessibility Notice | Privacy and Security Notice

Figure E. 5. Initial Reporting Month for a Process

My Facilities > Emissions Reports > 2023 Emissions Report

Agency ID: 999999
My Facility Inc.
123 MyFacility Road
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2023 Emissions Report
Agency: DOE

Report Facility & Emissions Information | Perform Quality Checks | Submit to SLT Authority | Approved by SLT Authority

Process Information

Unit ID: B201

Process ID: P201

Process Description: Power Anthracite

SCC: 10300101

SCC Description: External Combustion Boilers > Commercial/Institutional > Anthracite Coal > Pulverized Coal

Operating Status: Operating

Operating Status Year: 2017

Search for Source Classification Code

Initial Reporting Month for 2023: January

Comments:

Cancel Save

Operating Details

Edit

Avg. Days per Week: 2 Hours per Reporting: 574

Note that if you have an “alternative throughput” process (see 4.3.2) you will not need to re-enter fuel information for that process. Also note that if your facility has multiple processes that are listed in several screens, you will be prompted by a yellow pop up to enter all relevant data and save your work.

E. 4 Entering Emissions Information

You can then enter emissions information in the Emissions Information tab (Figure E. 3). You can enter emissions directly, or, if the calculation method you are using is based on an emission factor or rate, the system will calculate the emissions for you when you click “Save Emissions”. Some calculation methods, such as CEMS, may have a different rate every month, and you should enter that rate in this screen. Note that you may also enter an emission factor in the emissions calculation screen for that process and pollutant, in which case that factor will be used for all months of the inventory year.

E. 5 Submitting a Semiannual Report

After entering data from January to June for the year, you will be able to prepare and submit your Semi-Annual fuel report. The semiannual report you submit will include all monthly values, as well as totals for the six-month period. Click on the “Semi-Annual Report” tabs (Figure E. 6 and Figure E. 7). These tabs show the summary for the first six months of the year where values have been aggregated. When you are ready, run the QA checks from either of the Semi-Annual Report tabs.

Figure E. 6. Semi-Annual Process Tab

My Facilities > Emissions Reports > 2023 Emissions Report

[CBI Disclaimer](#)
[CAERS Help](#)
[Contact CDX](#)

Agency ID: 999999
My Facility Inc.
123 MyFacility Road
Washington, DC 99999
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▼ Facility Inventory

Facility Information
Emissions Units
Release Points
Control Devices
Control Paths

▼ Emissions Inventory

B201
B202
B301
Mike

Report Facility & Emissions Information

Perform Quality Checks

Submit to SLT Authority

Approved by SLT Authority

Monthly Reporting

Run Semi-Annual QA Checks for Submission

January

February

March

April

May

June

Semi-Annual Review

July

August

September

October

November

December

Annual Review

Process Information

Emission Information

Unit ID	Process ID	SCC	Throughput Material	Throughput Value	Fuel Material	Fuel Value	Hours per Reporting Period	Avg. Hours per Day	Avg. Days per Week	Avg. Weeks per Reporting Period
B201	P201	10300101	Anthracite	14.5 TON	Anthracite	14. TON	574	3.2	4	22
B202	P202	10201302	Waste Oil	300 GAL	Waste Oil	300 GAL	513	2.8	5.5	12
B202	P202-1	10201302	Cans	58 E3EACH			513	2.8	5.5	12
B301	P301	20201002	Butane	191 E3GAL	Butane	191 E3GAL	460	2.5	2.8	11
Mike	mike1	10100101	Anthracite	TON	Anthracite	TON				

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Figure E. 7. Semi-Annual Emissions Tab

My Facilities > Emissions Reports > 2023 Emissions Report

[CBI Disclaimer](#)
[CAERS Help](#)
[Contact CDX](#)

Agency ID: 999999
My Facility Inc.
123 MyFacility Road
Washington, DC 99999
2023 Emissions Report
Agency: DOE

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Data Bulk Entry

▼ Facility Inventory

Facility Information
Emissions Units
Release Points
Control Devices
Control Paths

▼ Emissions Inventory

B201
B202
B301
Mike

Report Facility & Emissions Information

Perform Quality Checks

Submit to SLT Authority

Approved by SLT Authority

Monthly Reporting

Run Semi-Annual QA Checks for Submission

January

February

March

April

May

June

Semi-Annual Review

July

August

September

October

November

December

Annual Review

Process Information

Emission Information

Unit ID	Process ID	Pollutant	Calculation Method	Monthly Rate	Emission Factor	Total Emissions
B201	P201	Carbon Monoxide	Continuous Emission Monitoring System	0.26667	3 TON/TON	39.8 TON
		Nitrous Oxide	Other Emission Factor (no Control Efficiency used)		390 LB/TON	5655 LB
		Volatile Organic Compounds	Engineering Judgment			2680 TON
B202	P202	PM2.5 Filterable	USEPA Emission Factor (no Control Efficiency used)		748.8 LB/E3GAL	224.64 LB
		PM2.5 Primary (Filt + Cond)	Manufacturer Specification			203 LB
B202	P202-1	Carbon Monoxide	Site-Specific Emission Factor (no Control Efficiency used)		0.5 TON/E3EACH	29 TON
B301	P301	Volatile Organic Compounds	Stack Test (no Control Efficiency used)			5 TON
Mike	mike1					

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E-6

When your Semi-Annual report has passed all critical QA checks, you will be able to certify it and submit it, per the same process as for the annual report (see Section 8).