South Coast Air Quality Management District

Annual Emissions Reporting (AER)

Guidelines on Rule 317.1 Reporting:

Architectural Coatings
Certified Clean Air Solvents
Charbroilers and Deep Fat Fryers
PERP

December 2024

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Rule 317.1 Overview

The federal Clean Air Act requires major stationary sources in the South Coast Air Basin to pay fees on emissions of nitrogen oxides (NOx) and volatile organic compounds (VOC) exceeding 80% of their baseline amount. [1]

In November 2024, notices of applicability were sent to facilities subject to Rule 317.1. Notices will be sent as needed based on future findings. For more information on applicability, please contact the Rule 317.1 team at Rule317.1@aqmd.gov.

Emissions Reporting for Rule 317.1 Facilities in AER

Adopted in June 2024, Rule 317.1 is being implemented through the AER program. All facilities subject to Rule 317.1 are required to submit an AER and file emissions in accordance with Rule 301 (e).[2] Facilities subject to Rule 317.1 reporting can view this identification in the Facility Information section in the AER Webtool (see following discussion).

In addition to reporting requirements of Rule 301 (e), these facilities must also include NOx and VOC emissions from:

- architectural coatings
- Certified Clean Air Solvents
- Unpermitted charbroilers and deep fat fryers[3]
- Equipment registered under the state's Portable Equipment Registration Program (PERP)

Emissions from these sources are used to calculate baseline and actual emissions under Rule 317.1 only and are not subject to Rule 301 (e) emission fees. Data Year 2024 (DY24) will determine the baseline emissions and will be subject to applicable AER emissions fees (as detailed in Rule 301(e)). Subsequent data years will be compared to DY24. If emissions have not decreased by at least 20% facilities will be subject to an additional non-attainment fee as determined by Rule 317.1.

This document is to assist facilities subject to Rule 317.1 in submitting an AER. For questions related to Rule 317.1, please see the following webpage and email contact:

https://www.aqmd.gov/home/rules-compliance/compliance/rule-317-1
Rule317.1@aqmd.gov

All other AER-related guidelines, such as for facilities subject to CARB's Regulation for the Reporting of Criteria Air Pollutants and Toxic Air Contaminants (CTR), can be found at:

www.aqmd.gov/aer

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[1] See Rule 317.1 Draft Staff Report for additional information: https://www.aqmd.gov/docs/default-source/rule-book/Proposed-Rules/317.1/pr317-1_dsr_20240507.pdf

[2] See AER FAQ for additional information: https://www.aqmd.gov/docs/default-source/planning/annual-emission-reporting/frequently-asked-questions.pdf

[3] Permitted equipment, including charbroilers and fryers, have always been subject to Rule 301 emissions reporting requirements.

AER-related assistance is also available by telephone and email:

Support Hotline: (909) 396-3660
Support Email: aer@aqmd.gov

Architectural Coatings

Architectural coatings are defined in Rule 1113 as any coating applied to a stationary structure or its appurtenances, or to field and lawns. Reporting of VOC emissions from architectural coatings only are required for Rule 317.1.

Emission Factors

To simplify reporting, the AER Webtool provides default VOC emission factors (EFs) for various architectural coating categories. The defaults were developed using the sales-weighted average from reports that manufacturers submit to South Coast AQMD annually as required by Rule 1113. Architectural coatings are categorized as follows:

- Coating Category – Rule 1113 coating categories (Ex: Roof coatings, wood coatings, or traffic coatings, etc.)
- Coating Base – solvent or water based
- Coating Use – Interior, Exterior, or Dual purpose

Users must first select the coating and a default VOC EF, if available, will populate for that selection. If no default is available, the user must enter the appropriate VOC EF by reviewing the specific product information. A user may elect to use their own product-specific EF rather than the default value; however, when using a non-default EF, the user must provide the product information. Sources for EFs include:

- VOC content label
- Manufacturer data
- Rule 1113 limit for the coating category

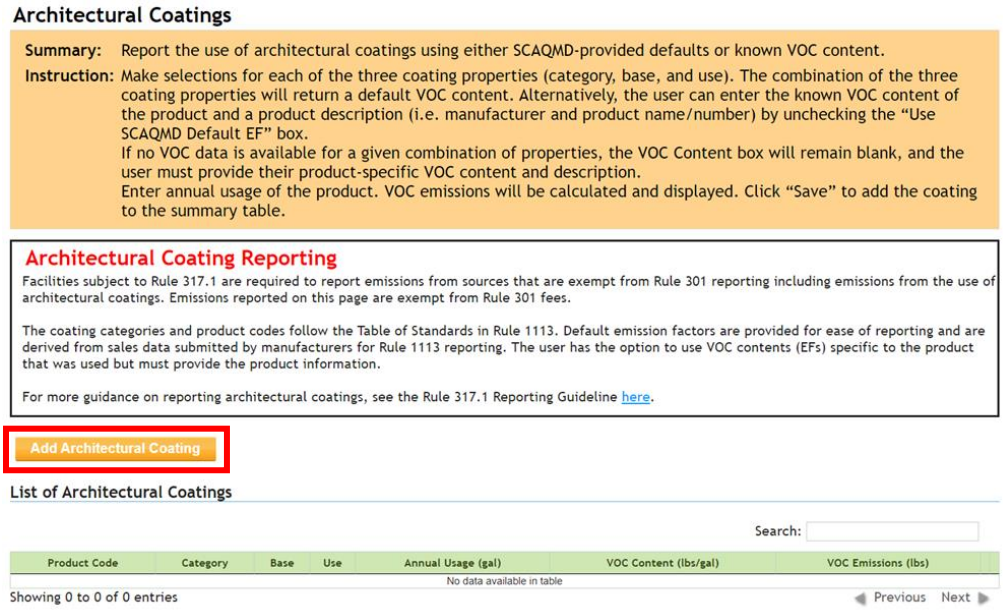
Reporting Architectural Coatings in the AER Webtool Tutorial

Users are advised to have all the following information available before attempting to report architectural coating emissions in the AER Webtool:

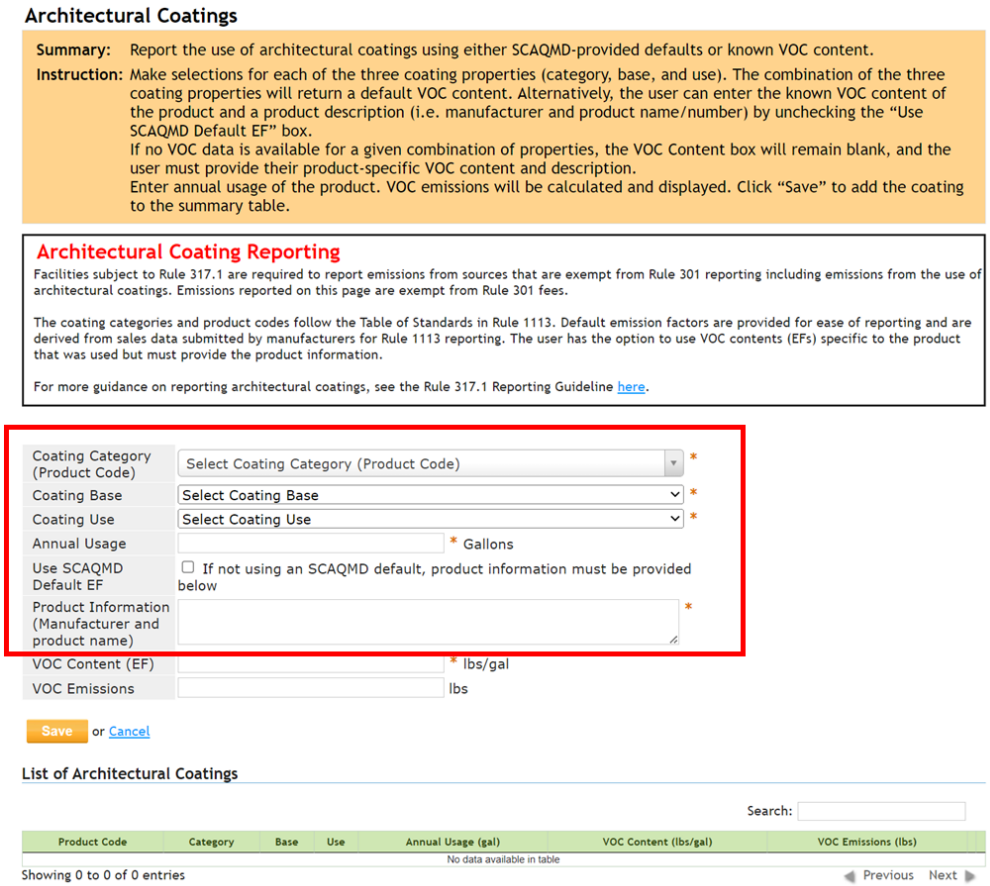
1. List of all coatings used during the reporting period/data year, including the product category (for a list of and definition of product categories please see the Rule 1113 Coating Category Definitions), Coating Base (solvent borne or waterborne), and Coating Use (interior, exterior, or dual).
2. Amount used of each coating during the reporting period/data year.
3. VOC content of each coating (if not using default EFs).

Click “Architectural Coatings” (locate using the Navigation Menu on the left).

The Webtool will display the list of reported architectural coatings in the green table shown at the bottom of the screen, if any. Click on the orange “Add Architectural Coating” button.



Select "Coating Category", "Coating Base", or "Coating Use" using the drop-down menus provided. Note that the first drop-down is searchable by typing in the search bar.



After making the selection, the user will have three options:

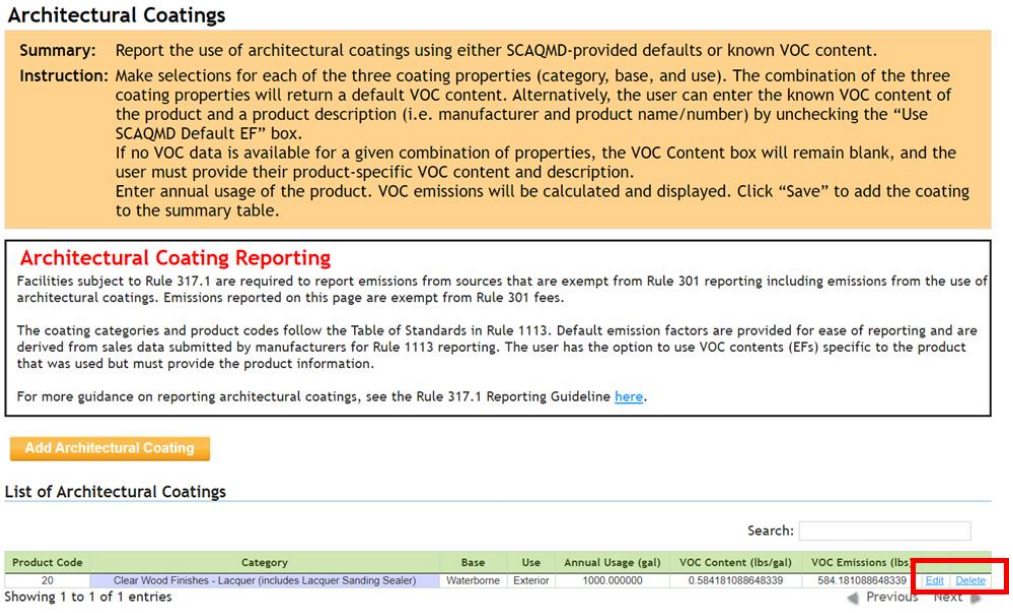
A default EF is available: The default EF will be automatically displayed in the VOC Content (EF) field. The "Use SCAQMD Default EF" check box will be automatically checked. The user can continue and enter the usage.

No default EF is available: The VOC Content (EF) field will remain empty. The "Use SCAQMD Default EF" check box will be unchecked. The user must provide the VOC content and product information. If the VOC content is unknown the user can use the Rule 1113 VOC limit for that category. The user can continue and enter the usage.

A default EF is available, but the reporter wants to use their own EF: The default EF will be automatically displayed in the VOC Content (EF) field and the "Use SCAQMD Default EF" check box will be automatically checked. Uncheck the "Use SCAQMD Default EF" checkbox and enter the VOC content and product information. If the VOC content is unknown the user can use the Rule 1113 VOC limit for that category. The user can continue and enter the usage.

Enter the amount of the coating (in gallons) used in the reporting period/data year.

Once all required fields have been populated, the AER Webtool will automatically calculate the VOC emissions for this coating. Click the orange "Save" button and repeat the above process for any remaining coatings used in the reporting period/data year.



Once saved, all architectural coating records will be displayed in the summary table along with the emissions data.

Users can edit or delete any previously entered information on architectural coatings by simply clicking on the blue "edit" or "delete" links in the green table at the bottom of the Architectural Coatings page.

Certified Clean Air Solvents

South Coast AQMD maintains a list of Certified Clean Air Solvents which meet all the following criteria:

1. VOC concentration is no more than 25 grams of VOC per liter of material, as applied;
2. Composite vapor pressure is no more than 5 mm Hg of VOC at 20°C (68°F);
3. Reactivity is not higher than toluene; and,
4. Contains no compounds classified as Hazardous Air Pollutants (HAPs) by the federal Clean Air Act, Ozone-Depleting Compounds (ODCs), or Global Warming Compounds (GWCs).

For a listing of all Clean Air Solvents currently certified by the South Coast AQMD, please visit the Certified Clean Air Solvents page on the AQMD website.

Products with expired certification dates or not certified by the South Coast AQMD are not eligible to be reported in this section. The use of those products must be reported as a standard solvent (see 'Other Use of Organics', found in the 'Report Process/Emissions' section in the left navigation menu), including any toxic compounds contained in the solvent. Emissions from the use of non-certified products are subject to fees. For guidance on reporting other organic containing materials, refer to the appropriate guidance document on the AER Webpage.

Default Emission Factor

Since all Certified Clean Air Solvents are certified for a VOC content (emission factor) of 25 g/L (0.2086 lb/gal), any product being reported in this section must use this as the default emission factor. Certified Clean Air Solvents are not tested for lower VOC content and so are ineligible for reporting with a lower VOC content. Users will not have the option to use any other emission factor to report Certified Clean Air Solvents.

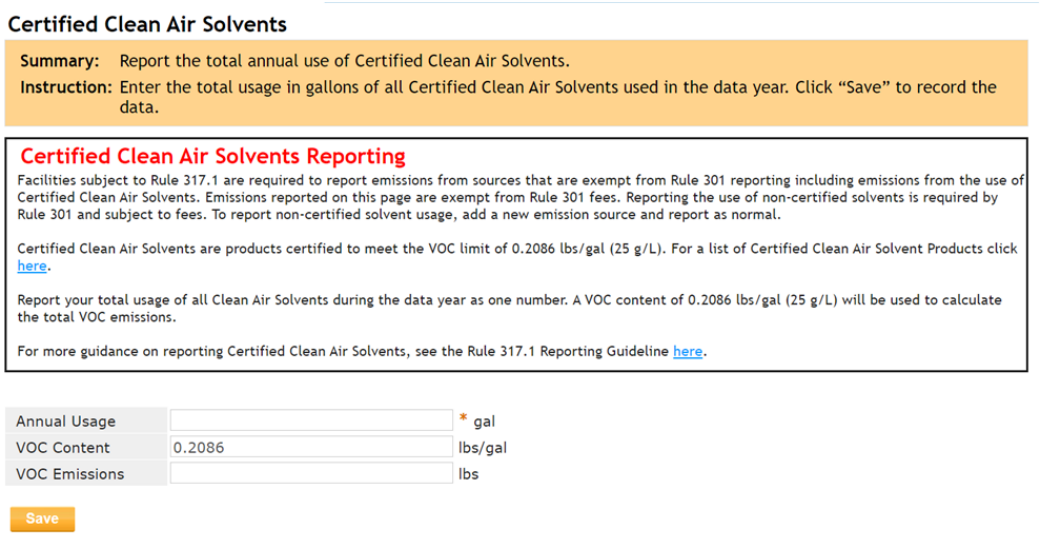
Since all Certified Clean Air Solvents have the same emission factor, the user must report the aggregate use of all Certified Clean Air Solvents as one throughput.

Reporting Certified Clean Air Solvents in the AER Webtool Tutorial

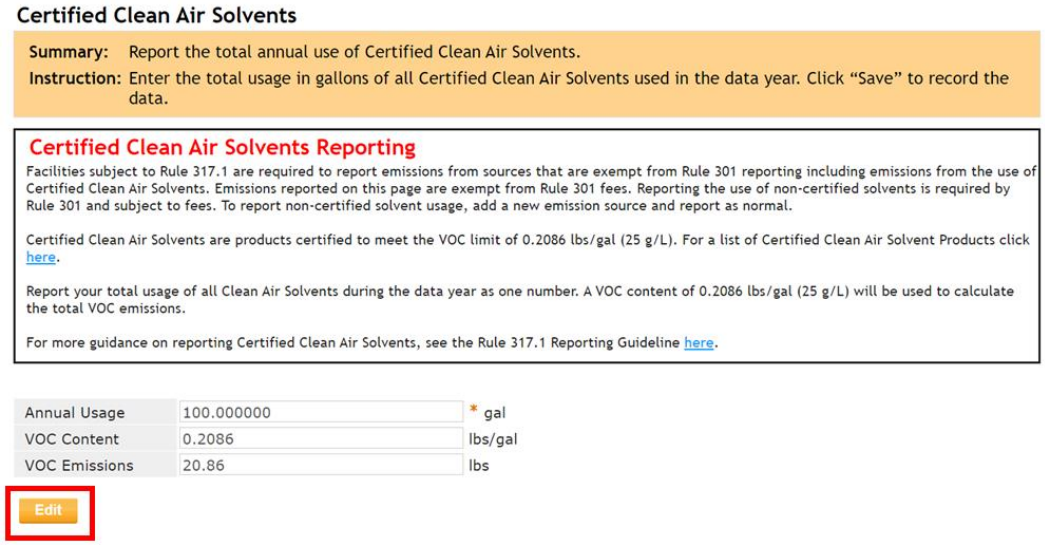
The following information should be prepared and available before attempting to report Clean Air Solvent emissions in the AER Webtool:

1. List of all Certified Clean Air Solvents used during the reporting period/data year (confirm that the solvents are still certified by the AQMD before reporting).
2. Amount used of each coating during the reporting period/data year.

Click "Certified Clean Air Solvents" (item No. 8 in Navigation Menu on the left). Sum the total amount of gallons used across all Certified Clean Air Solvents and enter this total in the Annual Usage input box. Once you have entered the total amount used, click enter and the AER Webtool will automatically calculate the total VOC emissions resulting from the facility's Clean Air Solvents usage. Lastly, click the orange "Save" button.



Users can also edit previously entered data on Certified Clean Air Solvents by simply clicking on the blue "edit" box at the bottom of the Certified Clean Air Solvents page.



Charbroilers and Deep Fat Fryers

The operation of charbroilers and fryers generate the following emissions:

1. Combustion emissions: criteria pollutant emissions and associated TACs generated from fuel combustion.
2. VOC and PM emissions from cooking food:
   - VOC emissions generated from the breakdown of oil and organics contained in the foods cooked at high temperature and oil evaporation when frying.
   - PM emissions generated from rapid evaporation of water which carries oil droplets.

While these activities generate many types of emissions, for the purposes of complying with Rule 317.1, it is *only necessary to report the NOx and VOC emissions*.

IMPORTANT: Only NOx and VOC emissions from these devices are exempt from fees. If the user reports other emissions, the Webtool will show these other emissions as being subject to fees.

Emission Factors

Combustion Emissions:
Reporters can use default combustion emission factors or source test data, if available. The default EFs for NOx and VOC will auto-populate on the AER Webtool.

Cooking Emissions:
Emissions that are generated from cooking can vary depending on the food that is being cooked and the cooking method.

Below are default emission factors that can be used for reporting. Control Efficiency may only be applied if the cooking equipment has dedicated control equipment.

VOC Emission Factors for Frying Operations

Frying Products	**Uncontrolled VOC EF (lbs/ton)**
Snack chips[4]	2.3
Donuts[5]	5.0
Nuts[6]	0.08
Meats[7]	2.14
Others[8]	2.1

VOC Emission Factors for Charbroiling Operations

Equipment type	**Uncontrolled VOC EF (lbs/ton)[9]**
Under-fired or chain-driven broilers	3.7
Griddle	0.3

VOC control efficiency

Control Equipment	**VOC Control Efficiency (%)**
Catalytic oxidizers	83%[10]
Afterburners/ thermal incinerators	90%[10]
Regenerative thermal oxidizers	90%[11]
Activated carbon filters	70%[12]

[4] Average of source test PR07328, PR10198, PR11602, 06-260, 06-261
[5] Source test PR11347
[6] Average of source test PR12663 and PR14083
[7] Average of source test R21108, PR17047 and PR14311A
[8] Average of all source tests referenced above
[9] Average of emission factors from Rule 1138 staff report (October 1997)
[10] Rule 1138 staff report (October 1997)
[11] Average of source test PR14121, PR11374, PR17047, PR11602 and R21108
[12] Source test PR 14311A for activated carbon filters venting a fryer

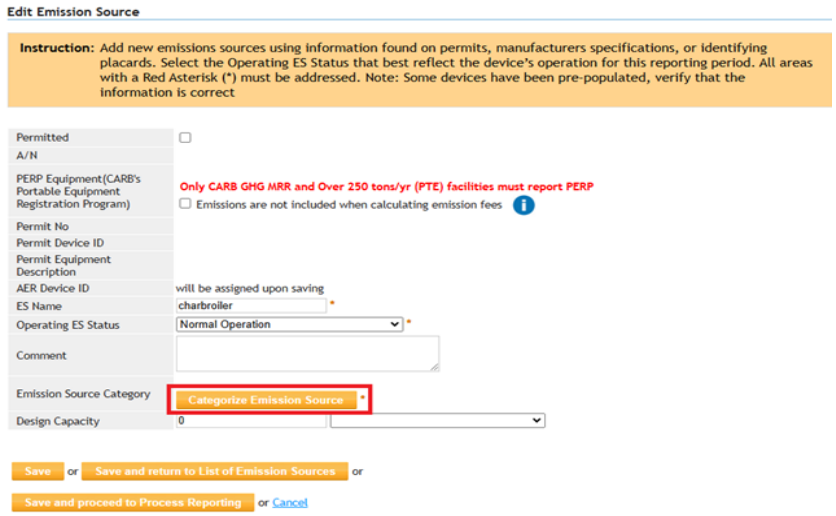
Reporting Charbroilers and Deep Fat Fryers in the AER Webtool Tutorial

The following information should be prepared and available before reporting charbroilers and/or fryer emissions:

1. Annual throughputs of fuel and food products processed in charbroilers and/or fryers.
2. Collect any source test data if available.
3. Emission factors using the instructions above.

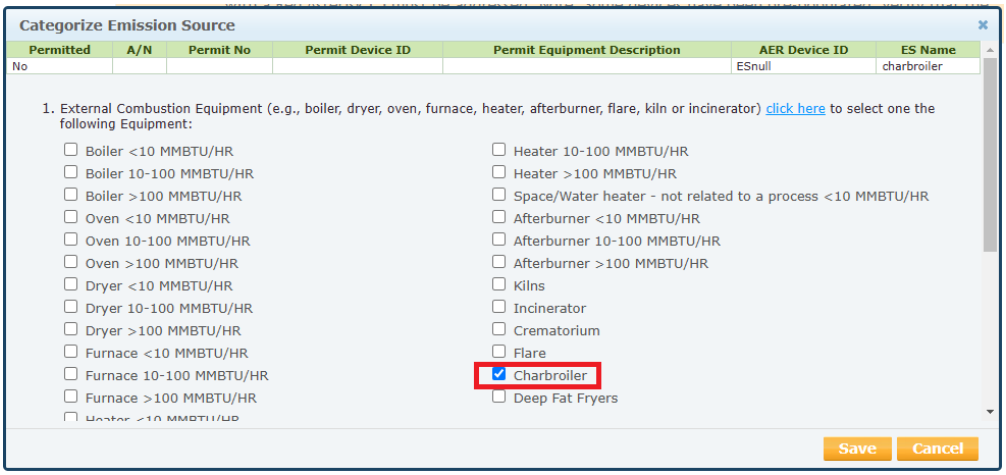
Reporting of these emissions is the same as reporting a regular device. Click on the "Add New Emission Source" link on the Emission Sources (ES) page (item No. 5 in Navigation Menu on the left).

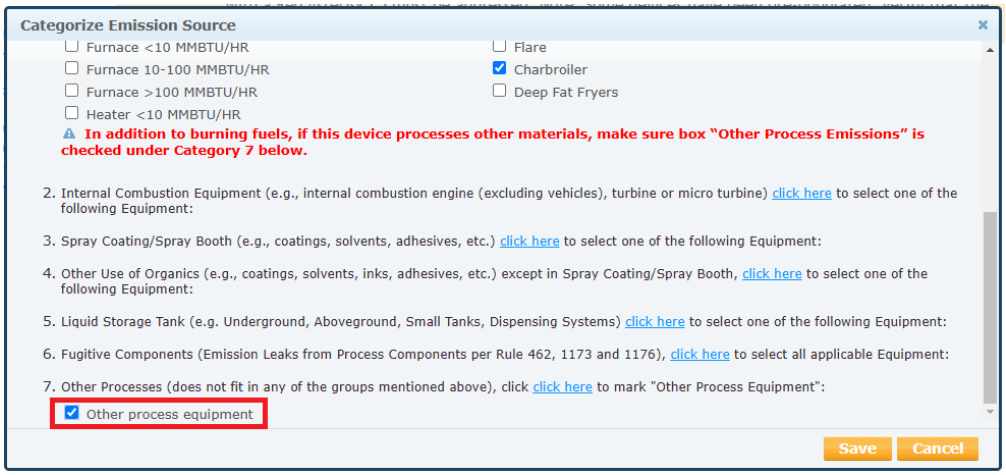
Name the Emission Source in the "ES Name" box and select Normal Operation in the "Operating ES Status" drop-down menu. Click on "Categorize Emission Sources" link, the tool will take user to next screen.



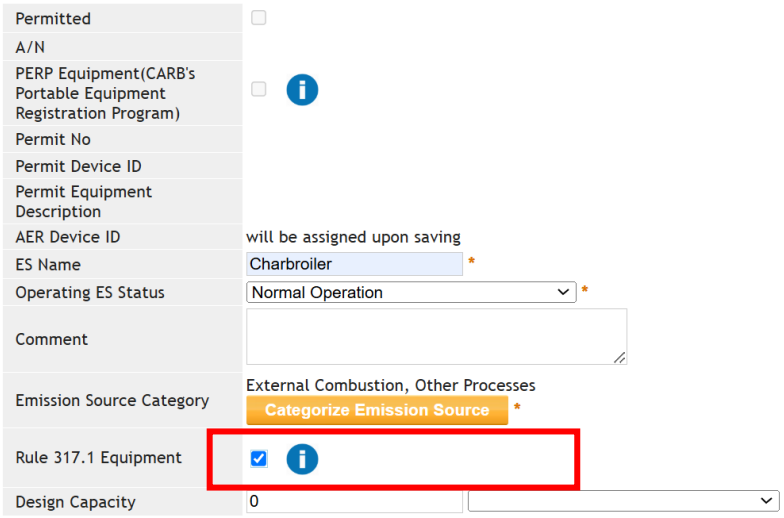
Emissions from charbroilers (or fryers) are reported as two separate processes: "No. 1-External Combustion Equipment" and "No. 7-Other Processes".

Click on No. 1 and select "Charbroiler" or "Fryer", then click on No. 7 and select "Other process equipment". Click on the "Save" button to save the selected processes.



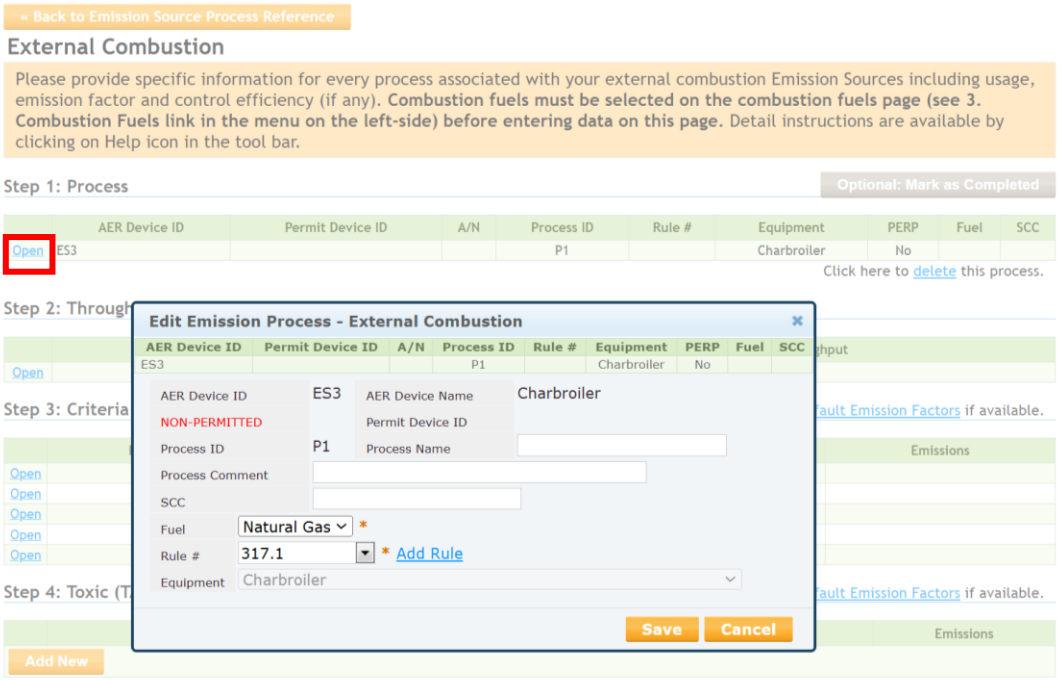


IMPORTANT: Check the "Rule 317.1 Equipment" box. This is what exempts the NOx and VOC emissions in this device from emissions fees. Failure to check this box may result in Rule 301 fees due for these emissions.

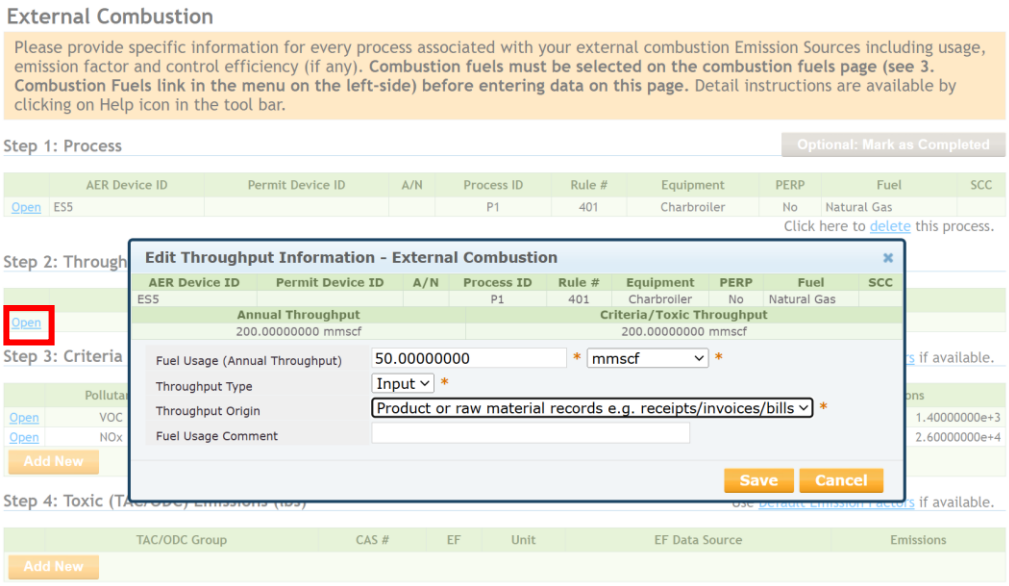


Click on “Save and proceed to Process Reporting”.

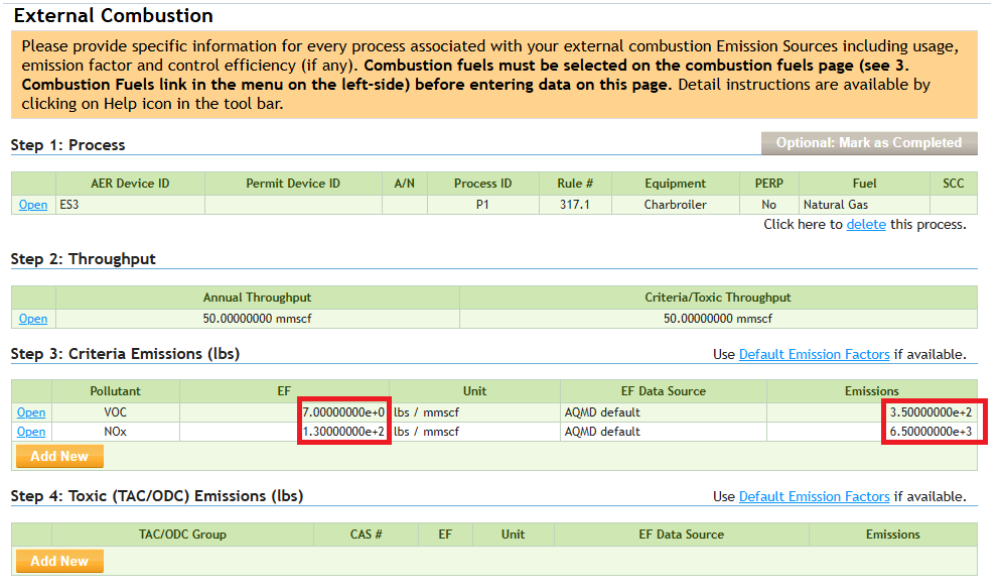
A pop-up window that shows Process IDs P1and P2 will be displayed. Click on the “Open” link for Process P1 for External Combustion Source Group. The process page for P1 will open. Click on the “Open” link under Step 1. Fill out the requested information from the pop-up window. Click “Save”.



The window for Step 1 will be closed after saving. Click on the “Open” link on Step 2. Enter the Fuel Usage (and appropriate unit), Throughput Type, Throughput Origin and Fuel Usage Comment in the pop-up window. Then click on the “Save” button.



Default emission factors for VOC and NOx are automatically entered into step 3. VOC and NOx emissions from combustion are automatically calculated.

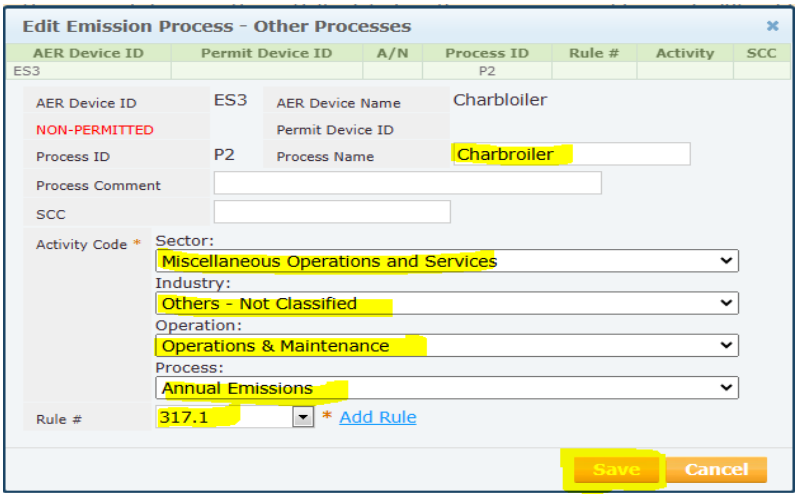


If the reporter wants to use emission factors from a source test, click on the "Open" link for each pollutant. In the pop-up window, uncheck the "Use default" box, enter the new emission factor in the "Emission Factor (EF)" field and select the source of the emission factor in the "Emission Factor Data Source" from the drop-down list. Click save.

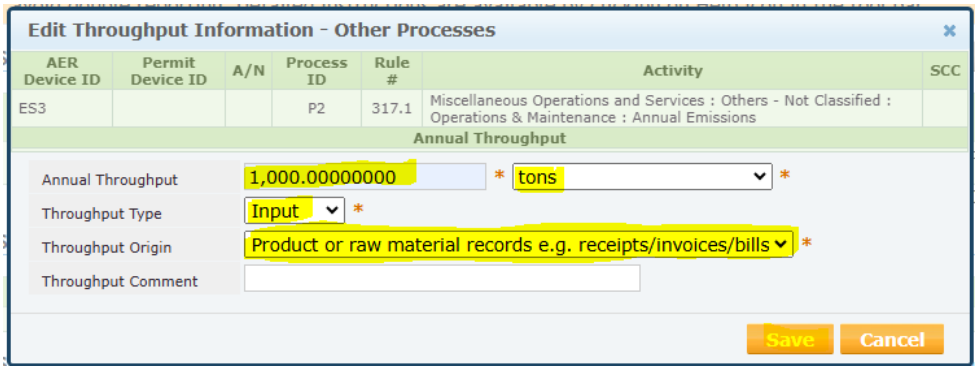
TAC emissions from combustion are not required for Rule 317.1 equipment. No entry is required for Step 4.

Click on the "Back to Emission Source Process Reference" to go back Process Reference and click on "Open" link on P2 (Other Process Emissions).

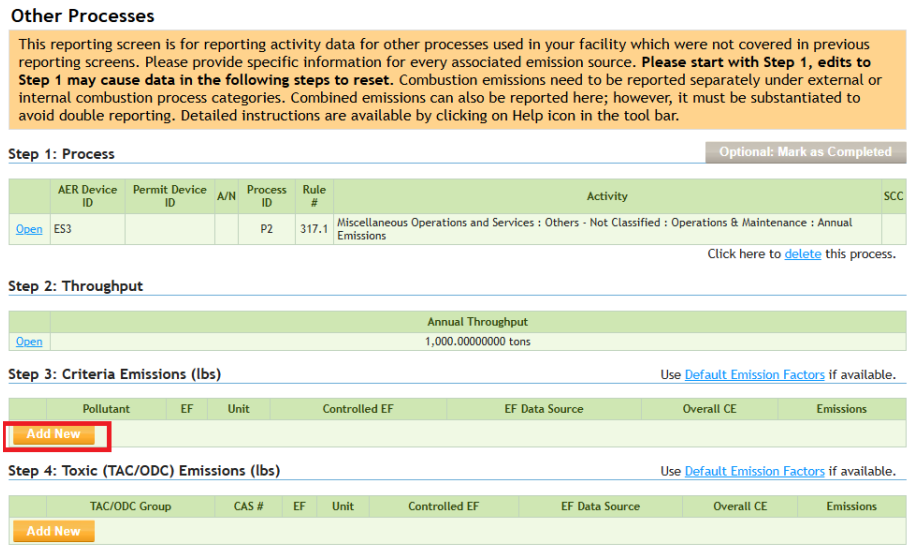
Fill out Process Name, Activity Code and Rule number in the pop-up window for Step 1. Click on "Save" button.



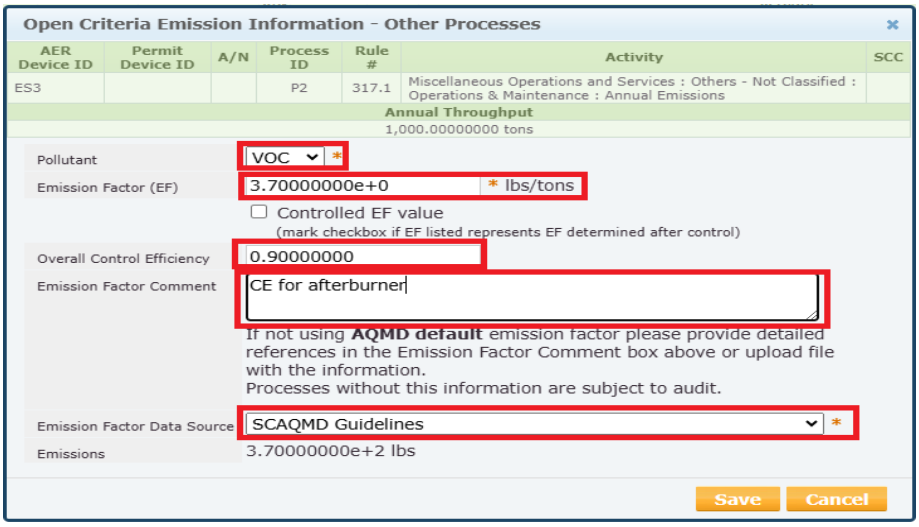
Click "Open" link on the Step 2 (Throughput). Enter the throughput, unit for the throughput, throughput type and the throughput origin in the provide fields. Click "Save" button.



Click on "Add New" button under Step 3 (Criteria Emissions).



Select pollutant, enter Emission Factor and Control Efficiency (using emission factors and control efficiency from SCAQMD Guidelines for Charbroilers and Fryers). Click “Save” button.



TAC emissions from “Other Process” are not required for Rule 317.1 equipment. No entry is required for Step 4.

PERP

Beginning with the 2024 data year, Rule 317.1 requires applicable facilities to report emissions from portable diesel-powered engines rated at 50 brake horsepower (bhp) or above including those registered as PERP equipment, regardless of equipment ownership or permit status, if the engine or device is operated on site at any time during the data year.

Reporting of emissions from PERP and portable equipment, including equipment brought on-site and/or operated by an outside contractor or entity, is the responsibility of the facility where the equipment was operated. In the AER Webtool, reporters can label equipment as PERP so that PERP emissions may be excluded from emissions fees. Only PERP is exempt from emissions fees; non-PERP portable equipment (i.e. various locations permitted equipment) is subject to Rule 301 emissions fees.

If the facility owns the portable equipment, aggregating is NOT allowed. If aggregating multiple contractor devices, users can enter the total fuel consumption for the data year as the annual throughput. Contractor devices should be aggregated consistent with the equipment's emission factors. Users should follow the Portable Guidelines for guidance on aggregation of multiple contractor devices.

For more detailed guidance on PERP and portable equipment reporting, including contractor equipment and aggregation, refer to the Portable Equipment Guideline on the AER Webpage.

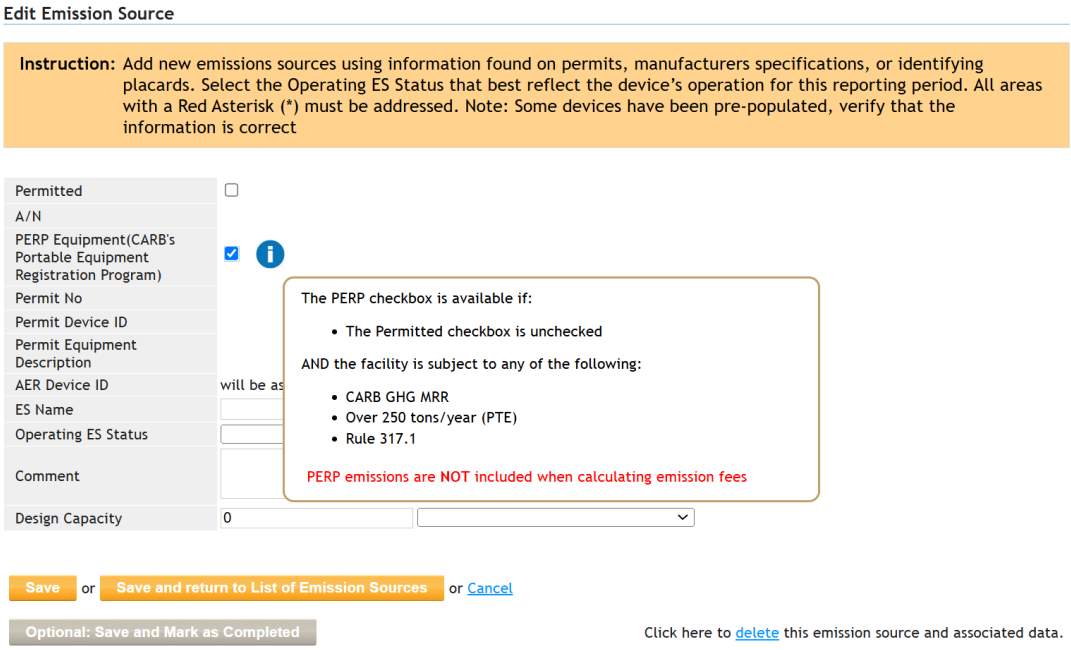
Adding New PERP Equipment

PERP is added to the report using the same process as adding a new device. Non-PERP portable equipment can be added to the device using the same steps but should not be marked as PERP.

Click on Emission Sources (ES) on the left navigation menu. Then click "Add New Emission Source".

This will open the Edit Emission Source page. To identify the device as PERP equipment, the check mark next to PERP Equipment (CARB's Portable Equipment Registration Program) should be checked. The note next to the check mark alerts the user that emissions from PERP equipment are not subject to emission fees.

Note: The user is responsible for verifying that the equipment is registered as PERP. If a device is misidentified as PERP, emissions from the device may result in emission fees and potential surcharges when the AER is amended to correct the error.

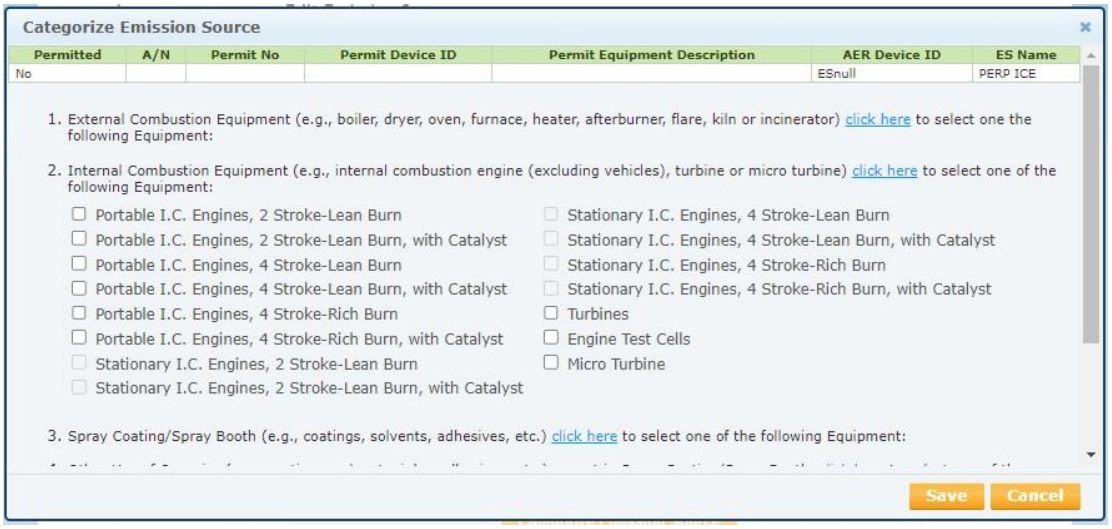


Once the PERP checkbox is checked, the permitted checkbox and Application Number (A/N) checkbox are not available since equipment that require a permit from the South Coast AQMD cannot be registered as PERP.

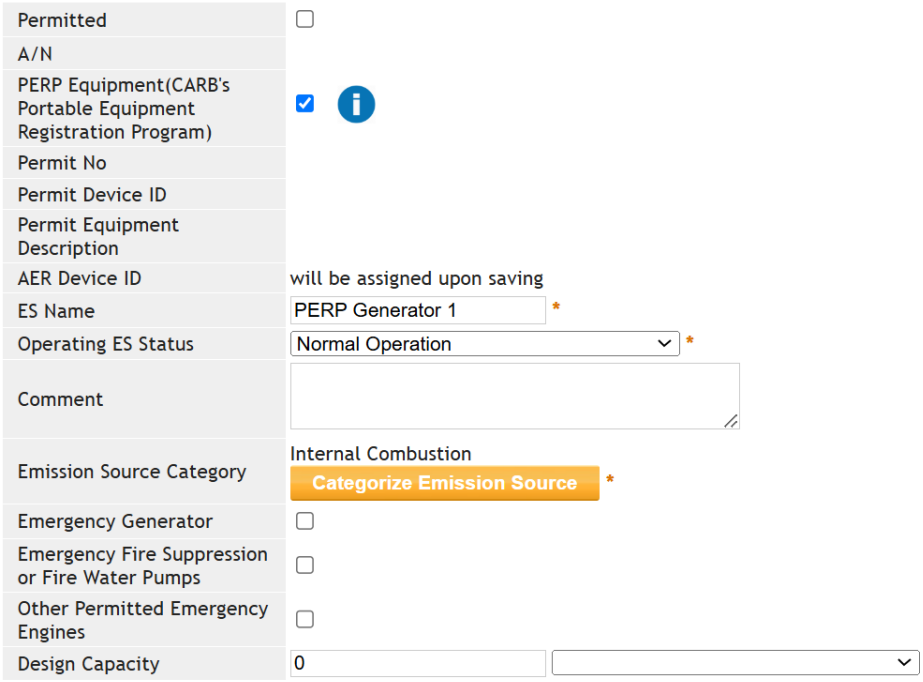
The user should then add a name in the ES Name field and select an option in the Operating ES Status. When "Normal Operation" is selected as the Operating ES Status, the Emission Source Category button is available. To categorize the emission source, click "Categorize Emission Source".

A pop-up box with emission source categories will display, as shown below. Since the PERP checkbox was selected, the webtool has greyed out several categories that cannot be registered as PERP. For example, in the screenshot below, all stationary I.C. engines have been greyed out since stationary equipment cannot be registered as PERP and would instead be permitted.

The user should use the description on the PERP registration document to identify the appropriate category when categorizing the emissions source.



After selecting the appropriate emission source category, the user must click “Save” to continue.

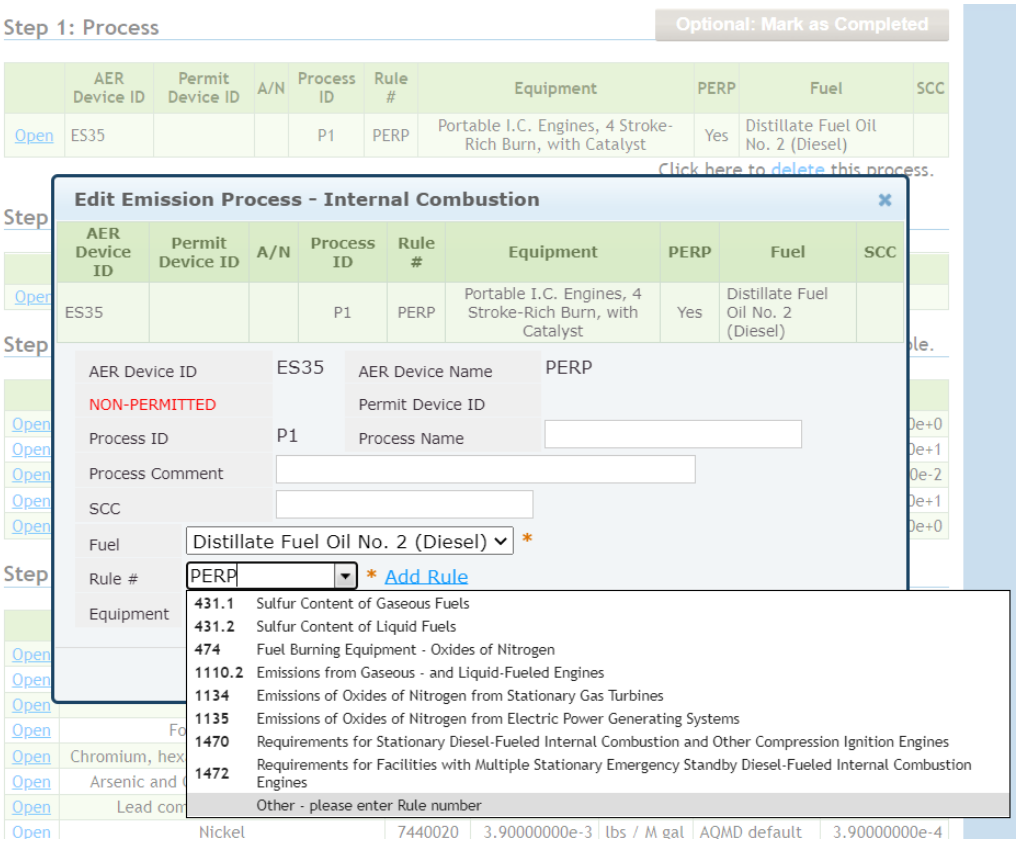


Once the Emission Source page is filled out appropriately, the user can click “Save and proceed Process Reporting” to go to the Process Page.

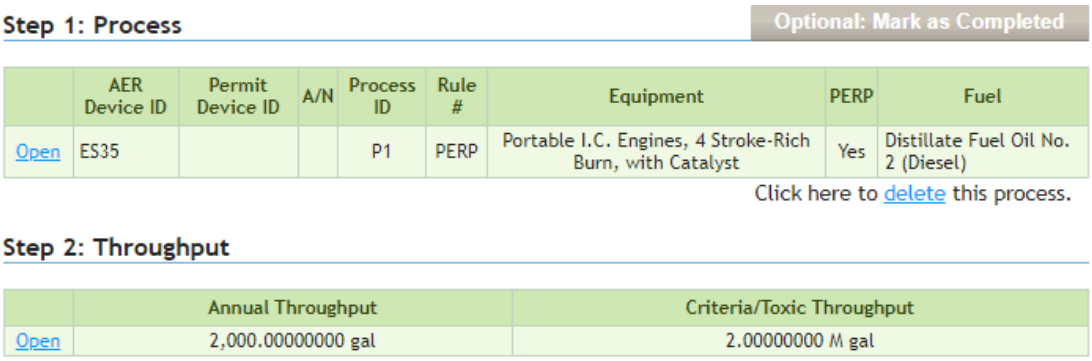
Clicking on any of the orange save buttons will complete the Edit Emission Source page process.

Reporting Usage and Emissions for PERP Equipment

Reporting usage and emissions from PERP equipment in the Process Page is the same as reporting usage and emissions from any other source. Refer to the Help & Support document for a detailed step by step tutorial on entering new equipment. This section will cover what should be done differently for PERP reporting.



To enter PERP as the Rule number in Step 1, users should click Open to open the above dialog box, as shown below. Select the fuel and select "Other – please enter Rule number" in the Rule # drop-down menu. Users can then type "PERP" into the Rule # box.



Emissions Summaries and Fees

Rule 317.1 emissions are summarized in the Criteria Pollutants Summary Page. Clicking the links will return the user to the reporting pages to make any necessary edits.

Rule 317.1 Reporting Emission Summary
Emissions reported as part of Rule 317.1 are not included in fee calculations

	VOC (tons)	NOx (tons)
Charbroilers & Fryers	0.70	13.00
Architectural Coatings	0.49	N/A
Certified Clean Air Solvents	0.52	N/A

Note that all Rule 317.1 emissions are excluded from fee calculations are removed from the total emissions when fees are calculated.

Fees

Total Emissions and Fees

	Total Permitted Emissions (tons)	Total Non-Permitted Emissions (tons)	Total RECLAIM Emissions (tons)	Total Emissions (tons)	PERP Emissions Excluded from Fees(tons)	Rule 317.1 Emissions Excluded from Fees (tons)	Total Emissions Subject to Fees (tons)	Emission Fees Due
Organic Gasses	0.04	0.60	0.00	2.35	0.00	1.71	0	$ 0.00
Specific Organics	0.00	0.00	0.00	0.00	0.00	N/A	0	$ 0.00
Nitrogen Oxides	0.65	20.81	0.00	34.48	0.02	13.00	21	$ 8,291.70
Sulfur Oxides	0.00	0.00	0.00	0.00	0.00	N/A	0	$ 0.00
Carbon Monoxide	0.42	1.62	0.00	2.05	0.01	N/A	0	$ 0.00
Particulate Matter	0.04	0.05	0.00	0.09	0.00	N/A	0	$ 0.00