



P I N A L • C O U N T Y

Wide open opportunity

INSTRUCTIONS FOR REPORTING ANNUAL EMISSIONS INVENTORY

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**Copies of this document, related forms
and other reference materials are available online at our web site:
<http://pinalcountyz.gov/Departments/AirQuality/Pages/IndustrialPermits.aspx>**

WHO IS REQUIRED TO SUBMIT AN ANNUAL EMISSIONS INVENTORY?

The Pinal County Code of Regulations, §3-1-103, requires that all permitted sources complete and submit an annual emissions inventory questionnaire. The Control Officer has waived certain permitted sources from having to submit all the information listed in this packet, and instead they only submit information as required in their semi-annual/annual compliance reports.

Sources that must complete this packet are Title V sources, sources that are allowed to emit 80% of the major source threshold, and some other complex sources.

All sources that receive this packet from PCAQCD must complete it and return it by March 31 or ninety days after receipt of the package.

Following are the steps to complete the Emissions Inventory packet:

STEP 1

Complete all 6 SECTIONS of the Pinal County Air Quality Control District Emissions Inventory packet:

SECTION 1. Facility Identification and Mailing Information

- 7. NAICS Code:** This 5- or 6-digit North American Industrial Classification System (NAICS) code has been introduced to replace the 4-digit Standard Industrial Classification (SIC) codes. Please list the primary and secondary NAICS codes for your business, if known. These codes can be found within the following website:

[2007 NAICS--North American Industry Classification System](#)

SECTION 2. Data Certification

For each pollutant listed on the table, total up all the emissions recorded on Section 6 and enter these numbers, ensuring that the totals are in Tons per Year.

Title V Billable Emissions: In accordance with §3-7-590, Class I sources must pay an emission-based fee for actual emissions of regulated pollutants. Per the definition of regulated pollutant of such section, PCAQCD will not count the following for purposes of the final invoice:

- Carbon Monoxide OR Ammonia
- Emissions of a regulated pollutant from the source in excess of 4,000 tons per year
- Emissions of any regulated pollutants that are already included in the fee calculation for the source, such as a HAP that is already accounted for as a VOC or PM10
- Emissions from Insignificant Activities excluded from the permit for the source pursuant to §3-1-050.E
- Fugitive emissions of PM10 from activities other than crushing, belt transfers, screening or stacking
- Fugitive emissions of VOC from solution-extraction units

To ensure Title V sources are not billed incorrectly, they must fill out the Billable Emissions boxes in Section 2 of the Emissions Inventory packet.

Confidentiality of Data: Information submitted in annual emissions reports must be made available to the public unless it meets certain criteria of the Arizona State Statutes and Pinal County Air Quality Code:

ARS § 49-487.D...the following information shall be available to the public:

2. The chemical constituents, concentrations and amounts of any emission of any air contaminant.

PCAQCD Code § 3-1-120

Any records, reports or information obtained from any person under this Code...shall be made available to the public, except that the information or any part of the information shall be considered confidential on either of the following:

1. A showing, satisfactory to the Control Officer, by any person that the information or a part of the information if made public would divulge the trade secrets of the person...
2. A determination by the County Attorney that disclosure of the information or a particular part of the information would be detrimental to an ongoing criminal investigation or to an ongoing contemplated civil enforcement action under this Code in Superior Court.

For emissions inventory to be considered confidential, the following steps must be followed:

1. Specific data which you request to be held confidential must be identified with an “X” in the corresponding gray confidentiality box(s) on the relevant report forms.
2. Provide a written explanation which gives factual information satisfactorily describing why releasing this information could cause substantial harm to the business’ competitive position.

Certification: The certification must be signed by a responsible company official (i.e., the proprietor, a general partner, the president, secretary, treasurer or vice-president of the corporation, or such other person as may be approved by the Control Officer as an administrative amendment to this permit).

SECTION 3. Stack and Vent Information

1. **Stack ID:** A number which identifies a specific stack.
4. **Exit Gas Temperature:** Should represent average operating conditions, in degrees Fahrenheit. DO NOT report “ambient”.
5. **Exit Gas Velocity OR Gas Flow Rate:** Provide **EITHER** the exit velocity (in feet per second) **OR** the flow rate of gas as (in actual cubic feet per minute) exiting the stack during normal operations.
- 6a. **Inside Stack Diameter:** For round stacks, provide the Inside Stack Diameter in inches.
OR
- 6b and c. **Inside Stack Length and Width:** For square or rectangular stacks, provide inside Length and inside Width in inches.
- 7 and 8. **Latitude and Longitude:** Provide coordinates of the stack in decimal degrees.

EXAMPLE: Stack and Vent Information Form

1	2	3	4	5a OR 5b	6a OR 6b and 6c	7	8	9		
Stack ID	Stack Type Code*	Stack Height (feet)	Exit Gas Temperature (°F)	Velocity (feet/sec)	Flow Rate (acfm)	Inside Diameter (feet)	Length/Width (feet)	Latitude	Longitude	Stack Name/Description
1	V	25	75		25,000	28		N33.0315	W111.3860	Abrasive Blast Booth
2	W	15	75		20,000	30		N33.0315	W111.3799	Paint Booth

SECTION 4. Equipment and Control Device Information

1. **ID:** A unique ID that you assign to identify the specific equipment or control device.
4. **Rated Capacity:** You can use the capacity unit codes listed at the bottom of the form, or for control equipment, report the air or water flow rate in cubic feet per minute (cfm).
5. **Equipment Type:** Indicate the type of equipment (generator, heater, boiler, crusher...) or control equipment (scrubber, paint booth, baghouse...).

EXAMPLE: Equipment and Control Device Information Form

1	2	3	4	5	6	7	8
ID	Quantity	Rated Capacity	Capacity Units*	Equipment Type	Installation/Modification Year	Equipment Name/Description	Manufacturer Name
1	1	50,000	cfm	thermal oxidizer	1983	RTO#1	Smitty
2	3	0.25	MMBtu/hr	ovens	2002	North oven, East oven, West oven	Easybake

SECTION 5. Process Identification Information

This form is used to record data on all emissions-producing processes. One page is to be used per process.

1. **Process ID:** A number to identify your process. This Process ID can not be used for any other process at this facility.
- 2/ 3. **Equipment ID and Stack ID:** These numbers should correspond to the equipment used in this process from Section 4 and the stack from Section 3 through which the pollution created by this process is vented.
7. **SCC Code:** The Standard Classification Codes are 8-digit numbers used to identify emissions data from different industrial processes. An updated list of the SCC codes can be downloaded from EPA's Technology Transfer Network at:

[Technology Transfer Network | Factors Information Retrieval System \(FIRE\) | WebFIRE](#)

8. **Process Material:** Provide the name of the material used, fuel used, product produced, or whatever was measured for the purposes of calculating emissions, such as "natural gas", "hours of operation", or "vehicle miles traveled".
9. **Processed/Produced/Existing:** Indicate whether calculated emissions are based on a material type or fuel used (such as "lacquer thinner" or "diesel"), or an output (such as "finished product"). Use "existing" if the parameter reported is not directly used or produced (such as "vehicle miles traveled").
10. **Normal Operating Schedule:** These reflect the normal daily, weekly, and annual operating parameters for this process during the reporting year.
11. **Seasonal Throughput Percent:** Enter the percent of total annual operating time that occurred per season, rounded to the nearest percent. The total of all 4 seasons must equal 100%.
12. **Annual Throughput:** Enter the amount of material used, fuel combusted, product produced, hours of operation, vehicle miles traveled, or acres.

SECTION 6. Pollutant Information

1. **Process ID:** Indicate the process from Section 5 that generates the pollutant on this line.
3. **Pollutant:** The following pollutants must be reported:
Carbon Monoxide (CO)
Nitrogen Oxides (NOx)
Particulate Matter less than 2.5 microns (PM2.5)
Particulate Matter less than 10 microns (PM10)
Sulfur Oxides (SOx)
Volatile Organic Compounds (VOC)
Hazardous Air Pollutants (HAP)
Ammonia and ammonium compounds (NHx)
Lead (Pb)
4. **Emission Factor:** The number to be multiplied by the annual amount in Section 5 (Process) to determine how much of the pollutant was emitted.
5. **Emission Factor Units:** Enter the appropriate Emission Factor Units in pounds (lb) per unit; e.g., lb/ton, lb/MMCF, lb/gal.
6. Indicate the Control Device from Section 4 where emissions are generating, if any.
7. **Control Efficiency:** Enter the total capture/control efficiency used in the calculations for this pollutant.
8. **Estimated Actual Emissions:** Calculate as follows:
 - For emissions with no controls or controls are already reflected in the emissions factor, multiply the annual throughput from Section 5 by the Emission Factor from Section 6. Please ensure the Throughput Units correlate with the Emission Factor units, by applying a Unit Conversion Factor (Section 5, Line 14), if needed.
$$\text{Column 8} = [\text{Section 5, Line 12}] \times [\text{Section 5, Line 14}] \times [\text{Section 6, Column 4}]$$
 - For emissions after controls, calculate emissions as indicated in the previous bullet, and multiply by “1 minus the percent efficiency” from Column 7. Use the decimal equivalent for Column 7. Example: 99% = 0.99
$$\text{Column 8} = [\text{Section 5, Line 12}] \times [\text{Section 5, Line 14}] \times [\text{Section 6, Column 4}] \times [\text{Section 6, (1-Column 7)}]$$
10. **Emissions Method:** Choose from the list at the bottom of the form which method was used to determine the emissions factor. In accordance with §3-7-590.C.a.1, acceptable methods for calculating actual emissions include the following:
 - Emissions from Continuous Emission Monitors (CEMS) certified pursuant to 40 CFR Part 75, Subpart C;
 - Emissions from source performance tests;
 - Emissions calculated from material balance using engineering knowledge of a process;
 - Emissions calculated using AP-42 emission factors;
 - Emissions calculated by equivalent methods approved by the Control Officer.
11. **Efficiency Method:** Choose from the list at the bottom of the form which method best describes how you determined your control device efficiency.

SECTION 7. Sample Calculations

A sample calculation should be provided for each different type of process.

STEP 2

Make sure that all pages are numbered, and the year of the Emissions Inventory as well as a reference to the Company and Facility are written on top, to ensure that if pages become separated our staff can put the packet back together.

STEP 3

Make sure that the Data Certification form is signed by a responsible official as defined in §3-1-030.18. Submit the original, signed copy of the annual emissions report to: Pinal County Air Quality Control District, P.O. Box 987, Florence, AZ 85132, by the date required.