

AEIQ Instructions

- Please review the instructions below carefully, as some steps have changed.
- If you are completing this questionnaire as a digital spreadsheet workbook, note that each individual form has been given a separate worksheet (which you should be able to navigate between using tabs along bottom of page).
- This is **not** a **Compliance Certification** form. Submitting this Annual Emission Inventory Questionnaire does not fulfill your obligations to submit a Compliance Certification report and vice versa.
- All forms have been locked so that data can only be entered in the appropriate fields.
- Certain fields will auto populate based on the data you enter.
- If you run into any problems please email EmissionInventory@AZDEQ.gov

STEP 1 FILL-OUT FORM 1.0 - General Facility Information

- Check the boxes next to each form that you complete. This allows us to verify that we have received all of the necessary forms from you.
- If you wish to claim any information as confidential you must state precisely what information is confidential and an explanation as to why this is needed.

STEP 2 COMPLETE each form that applies to your facility

- Fill out each form that matches the equipment at your facility. You may need to fill out more than one form.
- Emission totals will automatically calculate based on the data you enter in to each form. An emission summary is located at the bottom of each form. A complete facility-wide emission summary is located on FORM 1.0
- Detailed instructions for filling out each form are provided on pages 2 - 5 of this Readme tab. Also, comments with instructions have been inserted throughout the questionnaire. Please provide data for calendar year 2021 only.

STEP 3 SIGN the certification of truth and accuracy

- If you completed your forms digitally, please make sure to save the completed workbook. If you completed them on paper, please scan the completed forms and save them in whatever image format is convenient for you, or else PDF.
- All reports submitted to the Department should be certified true and accurate by the Responsible Official of the facility. This person is the owner or operator of the facility.
- If there is a change of the Responsible Official of the facility, please notify the Department with an additional letter stating the change.

Option 1: wet ink signature

- If you haven't already, print a paper copy of Form 1.0.
- Sign and date beneath the Certification of Truth and Accuracy.
- Scan the signed form and save it as either a PDF or whatever image file format is convenient for you.

Option 2: digital signature

- Save your completed workbook.
- Using your preferred digital signature solution, affix a digital signature and datestamp beneath the Certification of Truth and Accuracy. Depending on the solution you use, you may need to convert the workbook into a PDF first.
- Save your signed copy.

STEP 4 SUBMIT via email

- Address a single email message to EmissionInventory@AZDEQ.gov
- In the subject line, please include the place ID# you listed on Form 1.0. If you are submitting for multiple permits in the same email message, please list all applicable place ID#s in the subject line.
- Enclose both the signed Form 1.0 and the rest of the completed workbook as email attachments, as well as any supporting documents that you wish to include to justify your estimates.
- If you would like confirmation of ADEQ's receipt of your submission, please request it in the message body.
- Please double-check that you have entered the correct email address before sending your message.

NEED ASSISTANCE?

Contact: Lhamo Lemoine
Phone: (602) 771-2373
Email: EmissionInventory@azdeq.gov

Version 1.7

Updated: 1/20/2022

General Instructions

- You may need to fill out more than one FORM to complete your annual emission inventory. Fill out each FORM that applies to the equipment operated at your facility.
- If you are filling this form out by hand (i.e. with pencil or pen), you **do not** need to calculate your emission totals, however you should fill out as much as you can (equipment info, activity levels, throughput, etc.) and submit the completed form to ADEQ. ADEQ will use this information to calculate your emission totals and contact you if any additional information is required.
- The tab '4.0 REFERENCES & CALCS' contains all of the default emission factors and formulas that ADEQ uses to calculate your emission totals. These are provided for reference only.
- You do not need to include any activities or operations that occurred on tribal lands or areas outside of Arizona.
- If the emission totals are not calculating, make sure that Excel is set to automatically calculate. Go to the Formulas tab and under Calculation Options make sure that Automatic is checked.

FORM 2.1 - Generators & Boilers

FORM 2.1 is used to calculate emissions from any generators or boilers at your facility. As most permitted sources generally have at least one emergency generator, it is likely that most users will need to fill out this form. FORM 2.1 requires some basic information, as described below:

Equipment Description	Enter a brief description of the generator or boiler that will help identify that specific piece of equipment.
Equipment ID	Enter the equipment ID number associated with that piece of equipment. This would ideally be the ID number listed in your air quality permit.
ATO #	Enter the ATO number assigned to this piece of equipment by ADEQ.
Fuel Type	Select from the drop-down list the fuel used in the generator or boiler. You can only use a fuel from the list; do not enter anything manually.
Capacity	For generators, enter the maximum capacity (in horsepower). For boilers, enter the rated capacity (in MMBtu/hr).
Actual Hours Operated	Enter the total number of hours that piece of equipment was operated during the year.

FORM 2.2 - Dry Cleaning

For each month, enter the amount (in gallons) of perchloroethylene (perc) purchased and consumed. This form will only calculate the perc emissions from dry cleaning activities.

NOTE: You will also need to use FORM 2.1 to account for your boiler or generator emissions.

FORM 2.3, FORM 2.4, and FORM 2.5

If you have any questions about FORM 2.3 - COTTON GIN, FORM 2.4 - SOIL VAPOR EXTRACTION, or FORM 2.5 - AIR CURTAIN INCINERATOR, please contact ADEQ.

FORM 2.6 - Rock Products (instruction page 1 of 2)

Form 2.6 should be used by a facility that has an asphalt plant, concrete batch plant, crushing & screening operation or any combination of these three. The form contains several sections: Asphalt Plant, Crushing & Screening Operations, Concrete Batch Plant, Fugitive Sources, and Location Information. Each section should be filled as applicable.

NOTE: The emission factors used in this form already account for control measures and assume that these control measures are being implemented at the facility.

Asphalt Plant

Rotary Drum Dryer	Enter the amount of material (in tons) processed in the rotary drum dryer.
Fuel Type	Enter the fuel used in the drum dryer. Choices are: Natural Gas, Diesel/Fuel Oil #2, or Waste/Fuel Oil #6.
Control Device	Enter the type of control device connected to the drum dryer. Choices are: Fabric filter baghouse or venturi scrubber.
Asphalt Tank Heater	Enter the amount of fuel consumed in the asphalt cement heater. Enter gallons if you use LPG or Diesel/Fuel Oil #2 or cubic feet if you used Natural Gas.
Fuel Type	Enter the fuel used in the asphalt cement heater. Choices are: Natural gas, Liquefied petroleum gas (LPG), or Diesel/Fuel Oil #2.
Plant Load-Out	Enter the amount (in tons) of material loaded into trucks from the asphalt plant.
Material Handling Operations	Enter the amount (in tons) of material handled at the asphalt plant. Material handling refers to the transfer of material from storage piles using front-end loaders to feed hoppers or other pieces of equipment.

Crushing & Screening Operations

For an emission source, you should report the total amount of material that is processed through that source. For example, under 'Crushers' you should report the total amount of material crushed at your facility. If you have multiple crushers, it will be necessary to add their individual throughputs together and report the grand total. This applies to all of the emission sources listed below, except for conveyor transfer points.

Batch Drop Operations	Enter the total amount (in tons) of material that went through a batch drop process. If there are multiple batch drop locations, enter the total amount of material that passed through them all.
Feed Hoppers	Enter the total amount (in tons) of material that went through a feed hopper. If there are multiple feed hoppers, enter the total amount of material that passed through them all.
Crushed	Enter the total amount (in tons) of material crushed at your facility. If there are multiple crushers, enter the total amount of material that passed through them all.
Screened	Enter the total amount (in tons) of material screened at your facility. If there are multiple screens, enter the total amount of material that passed through them all.
Fine Screened	Enter the total amount (in tons) of material that was fine screened at your facility. If there are multiple fine screens, enter the total amount of material that passed through them all.
Stacked	Enter the total amount (in tons) of material that was stacked at your facility. If there are multiple stackers, enter the total amount of material that passed through them all.

The emission factor for transfer point emissions is based on the amount of material that passes through each conveyor transfer point. Therefore, in order to estimate emissions we need 1) the number of transfer points and 2) the amount of material (in tons) that passed through each transfer point.

Conveyor Transfer Points

Use the 7 categories to group transfer points that process the same (or close to the same) amount of material. For example, if there are 2 transfer points that handled 10,000 tons and 7 transfer points that handled 100,000 you would want to put these in two separate rows.

Concrete Batch

The concrete batch section only requires you to enter the total amount (in cubic yards) of concrete produced.

Fugitive Sources

The fugitive source section contains a variety of source categories, which are described in detail below.

- Number of Storage Piles** Enter the number of storage piles (both sand and aggregate).
- Vehicle Miles Traveled on Unpaved Roads** Enter the total vehicle miles traveled (VMT) on unpaved roads. This is for all vehicle types.
- Blasting** Enter the number of blasts that occurred during the reporting year.

FORM 3.0 & 3.1 - Miscellaneous

FORM 3.0 - MISC EQUIPMENT LIST

FORM 3.0 is used to collect information on your emissions-generating equipment. **Only equipment listed in your permit is required to be reported.**

FORM 3.0 and 3.1 are provided for facilities who's operations do not fall within one of the general source categories. In this case, you will need to manually complete both forms with the following information:

Equipment Type	Enter a brief description of the equipment type. For example, Boiler or Spray Booth.
Equipment ID	Enter the equipment ID number associated with that piece of equipment. This would ideally be the ID number listed in your air quality permit.
Design Capacity	Enter the design capacity of this equipment along with the units. For example, 10 horsepower or 100 MMBtu/hr.
Hours of Operation	Enter how many hours the equipment was operated during the year.
Fuel Type	Select from the drop-down list the fuel used in the dryer. Do not enter anything manually in this field.
Control Device	If a pollution control device is used, enter it's type. For example, Baghouse or Thermal Oxidizer.

FORM 3.1 - MISC EMISSIONS

FORM 3.1 is used to collect emission information on the equipment listed on FORM 3.0. The Equipment Type and Equipment ID fields should match equipment that is listed on FORM 3.0.

Equipment Type	Enter a brief description of the equipment type. For example, Boiler or Spray Booth.
Equipment ID	Enter the equipment ID number associated with that piece of equipment. This would ideally be the ID number listed in your air quality permit.
Annual Process Rate	Enter the annual process rate for that equipment along with the units. The units of the process rate should match the units of the emission factor.
Hours of Operation	Enter how many hours the equipment was operated during the year.
Pollutant	Enter the name of the pollutant that is being calculated.
Emission Factor	Enter the emission factor being used to calculate the emission total along with the units. Keep in mind that the emission factor units should match the process rate units.
Emission Factor Reference	Enter the source of the emission factor. For example, AP-42 or Stack Test Results.
Pollutant Control Device	If a control device is used for a specific pollutant, enter it's type.
Control Efficiency	If a control device is used for a specific pollutant, enter that control device's control efficiency.
Actual Emissions	Enter the total emissions (in tons).



FORM 1.0 - GENERAL FACILITY INFORMATION
ANNUAL EMISSIONS INVENTORY QUESTIONNAIRE - Version 1.7

2021

FACILITY NAME		PLACE ID#	PERMIT# or LTF#	
FACILITY ADDRESS		CITY	STATE	ZIP CODE
FACILITY CONTACT	TITLE	PHONE #		
E-MAIL				
PRODUCT/PRINCIPAL ACTIVITY		NAICS	NUMBER OF EMPLOYEES	

FORMS COMPLETED (mark all that apply):

<input type="checkbox"/> Generators & Boilers	<input type="checkbox"/> Soil Vapor Extraction	<input type="checkbox"/> Misc Equipment
<input type="checkbox"/> Dry Cleaning	<input type="checkbox"/> Air Curtain Incinerators	<input type="checkbox"/> Misc Emissions
<input type="checkbox"/> Cotton Gin	<input type="checkbox"/> Rock Products	

Please note, under A.R.S. § 49-432(E) the following portions of the emissions inventory report can never be held confidential:

1. The name and address of any permit applicant or permittee,
2. The chemical constituents, concentrations and amounts of any emission of any air contaminant, and
3. The existence or level of a concentration of an air pollutant in the environment.

If you do wish to claim confidentiality on any remaining portions of the report, you must attach a detailed explanation as to why the release of that information would cause substantial harm to your competitive position. See A.R.S. § 49-432(C)(1) for details.

PARENT COMPANY NAME				
MAILING ADDRESS		CITY	STATE	ZIP CODE
CONTACT NAME	CONTACT TITLE	CONTACT E-MAIL		

TOTAL FACILITY EMISSIONS (TONS PER YEAR)								
PM ₁₀	PM _{2.5}	NO _x	SO _x	VOC	CO	HAPs	LEAD	NH ₃
0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

CERTIFICATION OF TRUTH & ACCURACY

I certify that based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.

SIGNATURE OF RESPONSIBLE OFFICIAL	DATE
X	

PRINTED NAME	TITLE

CONTACT INFORMATION
 Arizona Department of Environmental Quality
 Air Quality Division
 Attention: State Implementation Planning
 1110 W. Washington St.
 Phoenix, AZ 85007



FORM 2.2 - PERC DRY CLEANING

2021

ANNUAL EMISSIONS INVENTORY QUESTIONNAIRE - Version 1.7

FACILITY NAME		PLACE ID#	PERMIT# or LTF#
0		0	0
YEARLY PERCHLOROETHYLENE PURCHASED & CONSUMED			
Perchloroethylene purchased & consumed during the year	Month	Perchloroethylene Purchased (Gallons)	Perchloroethylene Consumed (Gallons)
	January		
	February		
	March		
	April		
	May		
	June		
	July		
	August		
	September		
	October		
	November		
	December		
	Totals	0.00	0.00

Total PERC Emissions (tons):	0
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FORM 2.6 - ROCK PRODUCTS

2021

ANNUAL EMISSIONS INVENTORY QUESTIONNAIRE - Version 1.7

FACILITY NAME	PLACE ID#	PERMIT# or LTF#
0	0	0

ASPHALT PLANTS			
PROCESS TYPE	AMOUNT PROCESSED (TONS)	FUEL TYPE	CONTROL DEVICE
Rotary Drum Dryer			
SOURCE	AMOUNT OF FUEL USED	FUEL TYPE	
Asphalt Tank Heater			
SOURCE	TONS PROCESSED		
Plant Load-Out			
Material Handling Operations			

CRUSHING & SCREENING OPERATIONS			
SOURCE	TONS PROCESSED	SOURCE	TONS PROCESSED
Batch Drop Operations		Feed Hoppers	
Crushed		Screened	
Fine Screened		Stacked	
SOURCE	# OF TRANSFER POINTS	TONS THROUGH EACH TRANSFER POINT	
Conveyor Transfer Points			
Conveyor Transfer Points			
Conveyor Transfer Points			
Conveyor Transfer Points			
Conveyor Transfer Points			
Conveyor Transfer Points			
Conveyor Transfer Points			

CONCRETE BATCH PLANTS	
Cubic Yards of Concrete Produced	

FUGITIVE SOURCES	
Number of Storage Piles	
Vehicle Miles Traveled on Unpaved Roads	
Explosive Blasting - # of Blasts	

FORM 2.6 EMISSION SUMMARY (TONS PER YEAR)								
PM ₁₀	PM _{2.5}	NO _x	SO _x	VOC	CO	HAPs	LEAD	NH ₃
0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	-	-	-

