

APPLICATION PACKET
AIR QUALITY CONTROL
GENERAL PERMIT
FOR
GENERATORS



Arizona Department of Environmental Quality

Air Quality Division

July 19, 2011

INTRODUCTION

The Generator General Permit is applicable to stationary generators operated at a facility.

Facilities that meet the criteria in this application can obtain coverage under the general permit. The fees to obtain coverage and maintain the permit are lower than those covered under an individual air quality permit.

Applicants wishing to obtain coverage shall apply to the Arizona Department of Environmental Quality (ADEQ), except for facilities which will be located in one of the following counties: Maricopa, Pima, or Pinal County or on Indian Reservation. If the facility is located in Maricopa, Pima, or Pinal County, please contact the appropriate agency at the phone number below:

Maricopa County: (602) 506-6010

Pima County: (520) 243-7400

Pinal County: (520) 866-6929

If you have any questions regarding jurisdictional issues, please contact ADEQ at 602 771-2338 or 1-800-234-5677 ext. 771-2338.

DISCLAIMER

This application packet does not waive the rights of the Director as provided under Arizona Administrative Code (A.A.C.) R18-2-304 to request that additional information be submitted by the applicant to assist in the processing of the air quality permit application. Any applicant who fails to submit any relevant facts or who has submitted incorrect information in a permit application shall, upon becoming aware of such failure or incorrect submittal, promptly submit such supplementary facts or corrected information. If there is any difference between this application packet and Title 18, Chapter 2, of the A.A.C., the A.A.C. shall take precedence.

PERMIT ISSUANCE TIME FRAME

According to A.A.C. R18-1-525, ADEQ has 21 business days to determine if the submitted general permit application is complete. Once the application is determined to be complete, the department has 103 business days to make a licensing decision on the application. The counting of the days can be suspended by the Department upon the determination that additional information is needed.

In such a case, a letter will be sent to the applicant informing them that the counting of days has been suspended, and will also specify what additional information is necessary to continue processing the application.

APPLICATION INSTRUCTIONS

STEP 1: DOES YOUR FACILITY QUALIFY FOR THIS GENERAL PERMIT? – FORM 1

- **Use Form 1** on page 5 to verify if your facility qualifies for coverage under this general permit.
- If the facility does not qualify for coverage under the general permit, then a permit application for an individual permit must be submitted to the appropriate agency.

STEP 2: STANDARD APPLICATION - FORM 2

- **Items #1 through #3:** Complete Permit to be issued to, Mailing Address, Previous Company Name (if applicable), Name of Owner/Principals and Phone, Fax and Email of Owner/Principals fields.
- **Item #4:** Enter name and contact information of Owner's Agent if another individual/company will be submitting the general permit application on the owner's behalf.
- **Item #5:** The Plant/Site Manager or Contact Person is the person that ADEQ may contact for any additional information.
- **Item #6:** Specify the name and location of the plant. The township/range/section may be substituted for latitude/longitude coordinates which are specified in degrees, minutes and seconds.
- **Item #7:** If the "other" box is checked, please be specific as to what the organization is.
- **Item #8:** asks for the Permit Application Basis which indicates what type of permit is necessary.
 1. If the equipment has never been permitted, then the boxes titled "New Source" and "General Permit" should be checked.
 2. If the equipment is already permitted under an individual permit and you are applying for coverage under the General Permit, then the boxes titled "Renewal of Existing Permit" and "General Permit" should be checked and the current permit number must be included on the line titled "For renewal or modification, include existing permit number".
 3. If you have a group of equipment covered by the General Permit and you are adding additional equipment, then the boxes titled "Revision" and "General Permit" should be checked and the current General Permit Number(s) must be included on the line titled "For renewal or modification, include existing permit number".
 4. For new sources the "Date of Commencement of Construction or Modification" is the expected date that construction will begin. For existing sources this date need not be defined.
- **Items #9:** The "Responsible Official" is the owner or a partner of the company in most cases. It may also be the president or vice-president of larger companies. This official will ensure that the information submitted in the application is correct and that the requirements of the permit are followed. If there is a question as to who the responsible official is, contact ADEQ for more information.

STEP 3: EQUIPMENT LIST – FORM 3

Use Form 3 to provide a list of all generators located at the facility. This list should include the make, model, serial number, equipment identification number, date of installation, generator rating (in horsepower), type of fuel used, and engine type for each generator. In addition, the application must include a copy of the manufacturer's operating specifications for each generator.

STEP 4: EMISSION CALCULATIONS

Use the applicable Forms 4 through 7 to calculate emissions and annual operating hour limitation for each generator. The emission factors are obtained from EPA AP-42 manual.

STEP 5: COMPLIANCE CERTIFICATION & CERTIFICATION OF TRUTH, ACCURACY, & COMPLETENESS

A "Compliance Certification" and "Certification of Truth, Accuracy, & Completeness" must be signed by the Responsible Official. Form 8 can be used to satisfy this requirement.

STEP 6: FILING INSTRUCTIONS

1. **An Application Fee of \$500** in the form of a check or money order must accompany each application submitted. The check or money order shall be made payable to ADEQ.
2. Mail the completed forms and applicable fee to the following address:

**Arizona Department Of Environmental Quality
Air Quality Division
1110 West Washington
Phoenix, Arizona 85007**

3. Remember to make photo copies of all forms submitted before mailing.

FORM 1: DOES YOUR FACILITY QUALIFY FOR THIS GENERAL PERMIT?

The General Permit is developed for facilities operating only stationary generators.

1. Are there any emission units other than stationary generators located at the facility?
 YES NO **If YES**, this facility does not qualify for coverage under this general permit.
If NO, proceed to next question.

2. What is the combined horsepower rating of all the generators located at your facility?

3. Is the combined generator capacity from Question 2 above, less than 325 horsepower?
 YES NO **If YES**, this facility is exempt from obtaining an air quality control permit.
If NO, proceed to next question.

4. Is any generator at the facility greater than 3,000 horsepower?
 YES NO **If YES**, this facility does not qualify for coverage under this general permit and must obtain an individual permit.
If NO, you qualify for coverage under the Generator General Permit. Complete and submit the applicable forms and fees to the address listed on Page 4 of this application.

Application checklist:

- Applicable fee in the amount of \$500.

- Form 1 Does Your Facility Qualify for this General Permit?
- Form 2 Standard Permit Applications
- Form 3 Equipment List
- Form 4 Emission Form Determination
- Form 5 Combined Generator Rating
- Form 6 Emission Calculations – Emergency Generators
- Form 7 Emission Calculations – Non-Emergency Generators
- Form 8 Compliance Certification & Certification of Truth, Accuracy, & Completeness

FORM 2: STANDARD PERMIT APPLICATION FORM

**ARIZONA DEPARTMENT OF ENVIRONMENTAL QUALITY
Air Quality Division**

1110 West Washington St ♦ Phoenix, AZ 85007 ♦ Phone: (602) 771-2316

STANDARD PERMIT APPLICATION FORM

(As required by A.R.S. § 49-426, and Title 18, Chapter 2, Article 5, Arizona Administrative Code)

1. Permit to be issued to: (Business license name of organization that is to receive permit) _____

2. Mailing Address: _____

City: _____ State: _____ ZIP: _____

3. Name (or names) of Owners/Principals: _____
Phone: _____ Fax: _____ Email: _____

4. Name of Owner's Agent (If Applicable): _____
Phone: _____ Fax: _____ Email: _____

5. Plant/Site Manager/Contact Person and Title: _____
Phone: _____ Fax: _____ Email: _____

6. Facility Name: _____
Facility Location/Address: _____
City: _____ County: _____ ZIP: _____
Indian Reservation (if applicable, which one): _____
Latitude/Longitude, Elevation: _____

7. Type of Organization: Corporation Individual Owner
 Partnership Government Entity:
 Other _____

8. Permit Application Basis: (Check only one box) New Source
 Renewal of Existing Permit
 Revision of Existing Permit
For Renewal or Revision, include existing permit number (and expiration date): _____
Date of Commencement of Operation: _____

9. Signature of Responsible Official of Organization: _____
Official Title of Signer: _____

10. Typed or Printed Name of Signer: _____
Date: _____ Telephone #: _____

FORM 4: EMISSION FORM DETERMINATION

1. Will the applicant operate only emergency generators at the facility?

- YES NO **If the answer is YES, then complete the emission calculations in form 5 & 6 ONLY.
If the answer is NO, go to next question**

2. Will the applicant operate only non-emergency generators at the facility?

- YES NO **If the answer is YES, then complete the emission calculations in form 5 & 7 ONLY.
If the answer is NO, go to next question**

3. If the applicant operates both emergency and non-emergency generators at the facility, complete forms 5, 6 and 7.

FORM 5: COMBINED GENERATOR RATING

A. Generator Rating – Emergency Generators

If you operate more than one generator that uses the same fuel, list each generator in the table below and sum the total horsepower under each column.

TABLE 1 – Generator Capacity

	Diesel Fired and Less Than 600 HP	Diesel Fired and Greater Than 600 HP	Natural Gas Fired OR LPG Fired	Gasoline Fired
TOTAL Capacity				

If you operate only Emergency Generators, skip part B and proceed to FORM 6

B. Generator Capacity – Non-Emergency Generators

If you operate more than one generator that uses the same fuel, you can combine the capacity of those generators. Use Table 2 to list all the non-emergency generators under the respective fuel type.

TABLE 2 – Generator Capacity

	Diesel Fired and Less Than 600 HP	Diesel Fired and Greater Than 600 HP	Natural Gas Fired OR LPG Fired	Gasoline Fired
TOTAL Capacity				

FORM 6: EMISSION CALCULATIONS – EMERGENCY GENERATORS

A. Generator Emissions

Using the total capacity from Table 1 you can calculate the emissions. Enter the Total Capacity from Table 1 in Column (B) of Table 3 under the corresponding row. Emissions in Column (D) are calculated using the below formula:

$$\text{Emissions (D)} = \text{Emission factor (Column A)} \times \text{Total Engine Rating (Column B)} \times \text{Conversion factor (Column C)}$$

Write the resulting number in the white space under the corresponding pollutant and sum the total emissions for each pollutant from all the generators.

TABLE 3 – Emissions Calculations

Engine Fuel Type	Pollutant	AP-42 Emission Factor (A)	Total Engine Rating (from TABLE 1) (B)	Conversion Factor (C)	Total Potential Emissions (D) = (A) x (B) X (C)		
		<i>Pounds per Horsepower-hour</i>	<i>Horsepower</i>	<i>500 Hours/year 2000 Pounds/ton</i>	CO	NO _x	VOCs
		<i>Tons Per Year</i>					
Diesel Fired Less Than 600 horsepower	CO	0.00668		0.25			
	NO _x	0.031		0.25			
	VOCs	0.00247		0.25			
Diesel Fired Greater Than 600 Horsepower	CO	0.0055		0.25			
	NO _x	0.024		0.25			
	VOCs	0.000705		0.25			
Natural Gas OR LPG Fired	CO	0.00222		0.25			
	NO _x	0.0286		0.25			
	VOCs	0.000826		0.25			
Gasoline Fired	CO	0.00696		0.25			
	NO _x	0.011		0.25			
	VOCs	0.0216		0.25			
TOTAL EMISSIONS FROM ALL EMERGENCY GENERATORS							

If there is no other Generator operated at the facility, skip FORM 7 & 8 and go to FORM 9.

Otherwise, continue to FORM 7

FORM 7: EMISSION CALCULATIONS – NON-EMERGENCY GENERATORS

A. GENERATOR EMISSIONS

Facility-wide emissions are calculated using the total capacity from Table 2. Enter the Total Capacity from Table 2 of FORM 4 in Column (B) in the below table. Emissions in Column (D) are calculated using the below formula:

$$\text{Emissions (D)} = \text{Emission factor (Column A)} \times \text{Total Engine Rating (Column B)} \times \text{Conversion factor (Column C)}$$

Write the resulting value in the white space under the corresponding pollutant and sum the emissions for each pollutant from all the generators.

TABLE 4 – Emissions Calculations

Engine Fuel Type	Pollutant	AP-42 Emission Factor (A)	Total Engine Rating (from TABLE 3) (B)	Conversion Factor (C)	Total Potential Emissions (D) = (A) x (B) X (C)		
		<i>Pounds per Horsepower-hour</i>	<i>Horsepower</i>	<i>8760 Hours/year 2000 Pounds/ton</i>	CO	NO _x	VOCs
		<i>Tons Per Year</i>					
Diesel Fired Less Than 600 horsepower	CO	0.00668		4.38			
	NO _x	0.031		4.38			
	VOCs	0.00247		4.38			
Diesel Fired Greater Than 600 Horsepower	CO	0.0055		4.38			
	NO _x	0.024		4.38			
	VOCs	0.000705		4.38			
Natural Gas OR LPG Fired	CO	0.00222		4.38			
	NO _x	0.0286		4.38			
	VOCs	0.000826		4.38			
Gasoline-Fired	CO	0.00696		4.38			
	NO _x	0.011		4.38			
	VOCs	0.0216		4.38			
TOTAL POTENTIAL EMISSIONS FROM ALL NON-EMERGENCY GENERATORS							

FORM 7: EMISSION CALCULATIONS – NON-EMERGENCY GENERATORS

If you operate ONLY non-emergency generators, you need to complete ONLY Part B.

If you operate BOTH emergency and non-emergency generators, you need to complete ONLY Part C

B. ANNUAL OPERATING HOURS LIMITATION CALCULATION

The annual hours that the generator can be operated is based on limiting the total emissions from the facility to less than 90 tons per year (below Class I thresholds of 100 tons per year). Enter the Total Potential Emissions from all the generators from Table 4 to Column (A) in the below table. Emissions in Column (D) are calculated using the below formula:

$$\text{Maximum allowable hours} = \frac{\text{Potential Hours (Column B)} \times \text{Allowable Emissions (Column C)}}{\text{Total Potential Emissions (Column A)}}$$

TABLE 5: Annual Hours Limit

Pollutant	Total Potential Emissions From All Generators (From Table 4)	Potential Hours of Operation	Maximum Allowable Emissions Per Year	Maximum Allowable Hours of Operation
	(A)	(B)	(C)	(D) = $\frac{(B) \times (C)}{(A)}$
CO		8760	90	
NO _x		8760	90	
VOCs		8760	90	

ANNUAL ALLOWABLE HOURS LIMIT CHECKLIST

Are the smallest allowable hours of operation per year in Column (D) of Table 5 less than 8760 hours?

YES NO

If the answer is YES, the maximum allowable hours of operation per year is the lowest number in Column (D).

If the answer is No, there is no limit on the allowable hours of operation.

Maximum Allowable Annual Hours of Operation from TABLE 5 above: _____ **hours/year**

FORM 7: EMISSION CALCULATIONS – NON-EMERGENCY GENERATORS

If you operate BOTH Emergency and Non-emergency generators, then complete Part C.

C. ANNUAL OPERATING HOURS LIMITATION CALCULATION

The annual hours that the generator can be operated is based on limiting the total emissions from the facility to less than 90 tons per year (below Class I thresholds of 100 tons per year). Since the Emergency Engines are limited to 500 hours per year, the emissions from the Emergency Engines are subtracted from the 90 tons to determine the hours for the non-emergency engines.

Enter the Total Potential Emissions calculated for **emergency generators** from Table 3 to Column (A) in the below table. Calculate Column (C) by subtracting (A) from 90 tons.

Enter the Total Potential Emissions calculated for **non-emergency generators** from Table 4 to Column (E) in the below table. Emissions in Column (F) are calculated using the below formula:

$$\text{Maximum allowable hours} = \frac{\text{Potential Hours (Column D)} \times \text{Allowable Emissions (Column C)}}{\text{Total Potential Emissions (Column E)}}$$

TABLE 6: Annual Hours Limit

Pollutant	Total Potential Emissions From All EMERGENCY Generators (From Table 3) (A)	Maximum Allowable Emissions Per Year (B)	Remaining Allowable Emissions Per Year After Excluding Emergency Engines (C) = (B) – (A)	Potential Hours of Operation (D)	Total Potential Emissions From All NON-EMERGENCY Generators (From Table 4) (E)	Maximum Allowable Hours of Operation for Non-Emergency Generators (F)=(C) x (D) (E)
CO		90		8760		
NO _x		90		8760		
VOCs		90		8760		

ANNUAL ALLOWABLE HOURS LIMIT CHECKLIST

Are the smallest allowable hours of operation per year in column (F) of Table 6 less than 8760 hours?

YES NO

If the answer is YES, the maximum allowable hours of operation per year is the lowest number in Column (D).

If the answer is No, there is no limit on the allowable hours of operation.

Maximum Allowable Annual Hours of Operation from TABLE 6 above: _____ **hours/year**

**FORM 8: COMPLIANCE CERTIFICATION &
CERTIFICATION OF TRUTH, ACCURACY, & COMPLETENESS**

Certification of Compliance with all Applicable Requirements:

This certification must be signed by a Responsible Official. Applications without a signed certification will be deemed incomplete.

The responsible official is defined as a person who is in charge of principal business functions or who performs policy or decision making functions for the business. This may also include an authorized representative for such persons. For a complete definition see the Arizona Administrative Code, Title 18, Chapter 2, Section R18-2-301.

I certify that I have knowledge of the facts herein set forth, that the same are true, accurate and complete to the best of my knowledge and belief, and that all information not identified by me as confidential in nature shall be treated by the Arizona Department of Environmental Quality as public record. I also attest that I am in compliance with the applicable requirements listed in Section 1 of the Compliance Plan and will continue to comply with such requirements and any future requirements that become effective during the life of my permit. I will present a certification of compliance to ADEQ no less than annually and more frequently if specified by ADEQ. I further state that I will assume responsibility for the construction, modification, or operation of the source in accordance with Arizona Administrative Code, Title 18, Chapter 2 and any permit issued thereof.

Name (Print/Type): _____

(Signature): _____

Date: _____

Certification of Truth, Accuracy, and Completeness
Arizona Administrative Code R18-2-304.H.

R18-2-304.H. Certification of Truth, Accuracy, and Completeness. Any application form, report, or compliance certification submitted pursuant to this Chapter shall contain certification by a responsible official of truth, accuracy, and completeness.

This certification and any other certification required under this Article shall state that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.

By my signature I, : _____, hereby certify that based on information and belief formed after reasonable inquiry, the statements and information in this document are true, accurate, and complete.

Name (Print/Type): _____

(Signature): _____

Date: _____

ADEQ FEE SUMMARY

Air Quality Annual Fees			
GENERATOR GENERAL PERMIT			
CLASS II			
Fee Category TITLE V		Fee Category Non-TITLE V	
<u>APPLICATION FEE</u>	<u>ANNUAL ADMINISTRATIVE FEE</u>	<u>APPLICATION FEE</u>	<u>ANNUAL ADMINISTRATIVE FEE</u>
\$500	\$4520	\$500	\$3020
<p>There is a \$500 fee for facility changes that require the issuance of new Authorizations to Operate.</p> <p>There is no fee for transfers, administrative amendments, or facility change notices that do not require a permit revision.</p> <p>Administrative fees are due no later than February 1st of each year.</p> <p>CLASS II TITLE V SOURCES – Pursuant to Arizona Administrative Code, Rule R18-2-101., a Class II Title V source is one that is required to have a permit and subject to a standard, limitation, or other requirement under Section 111 of the Act. Section 111 of the Act covers New Source Performance Standards.</p>			