

APPLICATION PACKET

for

GENERAL AIR QUALITY CONTROL PERMIT

for

SOIL VAPOR EXTRACTION UNITS



Arizona Department Of Environmental Quality

Air Quality Division

INTRODUCTION

This application is intended to assist applicants in determining if their facility meets the criteria for coverage under the General Permit for Soil Vapor Extraction Units (SVEU). If it is determined that the facility meets the criteria for coverage, this application packet assists the applicant in the submittal of the information that is required to process their application for the General Permit. Facilities which meet the criteria in the general permit and are covered under the general permit will pay lower annual air quality fees than those covered under an individual air quality permit.

Applicants wishing to obtain an air quality permits shall apply to the Arizona Department of Environmental Quality (ADEQ), except for facilities which will be located exclusively in one of the following counties: Maricopa, Pima, or Pinal County. If the facility will be exclusively located in Maricopa, Pima, or Pinal County, the county agency will process the air quality permit application.

If the applicant has any questions regarding jurisdictional issues, please contact the appropriate agency at the phone number below:

ADEQ: 1-800-234-5677, ext. 771-2337

Maricopa County: (602) 506-6010

Pima County: (520) 243-7400

Pinal County: (520) 866-6929

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 application for an air quality permit. 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. In addition, an applicant shall provide additional information as necessary to address any requirements that become applicable to the source after the date it filed a complete application but prior to release of a proposed permit. 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.

1. APPLICATION INSTRUCTIONS

Form A: General Permit Applicability Checklist

Form A of this application packet has been developed to determine if your facility qualifies for coverage. Those facilities which do not qualify must obtain an individual (source specific) air quality permit.

Form B: Standard Permit Application Form

Please complete all lines:

Note: The “Responsible Official” is the owner or partner of the company in most cases. It may also be the president or vice-president of larger companies. If there is a question as to who the responsible official is, contact ADEQ for more information at 602-771-2337.

Form C: Exhaust Velocity Calculations

Stack exhaust velocity calculations are based on the dimensions of the exhaust stack and the flow rate of the SVEU. Form C can be used to record the stack dimensions and SVEU flow rate in order to calculate the exhaust exit velocity. All calculations should be based upon the actual flow rate

Form D: Equipment List

ADEQ needs to be able to identify all pieces of equipment covered under the General Permit. Use Form D to provide a list of all SVEU units to be permitted.

Form E: Compliance Certification / Certification of Truth, Accuracy, and Completeness

A “Certification of Compliance with all Applicable Requirements”, and “Certification of Truth, Accuracy, and Completeness” must be signed by a Responsible Official. Form F can be used to satisfy this requirement.

Form F: Fee Summary

Form F is a summary of fees associated with this General Permit

Filing Instructions

1. An application fee of \$500.00 must be submitted by all. Please make your check or money order payable to ADEQ. The application fee must accompany each application submittal.
2. Please mail the completed application packet and the \$500.00 application fee to the following address:

Arizona Department of Environmental Quality
Air Quality Division
Permits Section
1110 West Washington Street, 3415A-3
Phoenix, Arizona 85007-2935

FORM A

The following questions are designed to determine if your facility meets the criteria for coverage under the general permit or is required to obtain an individual permit.

Question #1 Will this SVEU be used to treat **ONLY** motor fuel contaminated sites?

YES NO

If the answer is YES, proceed to Question #2

If the answer is NO, the facility does not qualify for coverage under the general permit and must obtain an individual permit. Please contact the Air Quality Permits Section at ADEQ for assistance.

Question #2 Will this SVEU be used to treat sites containing **halogenated compounds**?

YES NO

If the answer is YES, proceed to Question #3

If the answer is NO, proceed to Question #4

Question #3 If treating **halogenated compounds** will this SVEU operate utilizing carbon adsorption?

YES NO

If the answer is YES, proceed to Question #4

If the answer is NO, the facility does not qualify for coverage under the general permit and must obtain an individual permit. Please contact the Air Quality Permits Section at ADEQ for assistance.

Question #4 Will this SVEU be operated inside of Maricopa County?

YES NO

If the answer is YES, proceed to Question #5

If the answer is NO, proceed to Question #9

Question #5 Do gases exiting the SVEU have a total VOC emission rate equal to or less than 22.5 tons/year?

YES NO

If the answer is YES, proceed to Question #7

If the answer is NO, proceed to Question #6

Question #6 Will the facility be willing to control the VOC emissions exiting the SVEU stack in order to comply with question #5 above?

YES NO

If the answer is YES, proceed to Question #7

If the answer is NO, the facility does not qualify for coverage under the general permit and must obtain an individual permit. Please contact the Air Quality Permits Section at ADEQ for assistance.

Question #7 Do gases exiting the SVEU have a total VOC emission rate equal to or less than 135 Pounds/Day?

YES NO

If the answer is YES, proceed to Question #9

If the answer is NO, proceed to Question #8

Question #8 Will the facility be willing to control the VOC emissions exiting the SVEU stack in order to comply with question #7 above?

YES NO

If the answer is YES, proceed to Question #9

If the answer is NO, the facility does not qualify for coverage under the general permit and must obtain an individual permit. Please contact the Air Quality Permits Section at ADEQ for assistance.

Question #9 Do gases exiting the SVEU have an outlet Benzene emission rate equal to or less than 67 Pounds/Year?

YES NO

If the answer is YES, proceed to Question #11

If the answer is NO, proceed to Question #10

Question #10 Will the facility be willing to control its benzene emissions exiting the SVEU stack in order to comply with question #9 above?

YES NO

If the answer is YES, proceed to Question #11

If the answer is NO, the facility does not qualify for coverage under the general permit and must obtain an individual permit. Please contact the Air Quality Permits Section at ADEQ for assistance.

Question #11 Do gases exiting the SVEU have an outlet Benzene emission rate equal to or less than 0.55 Pounds/Hour?

YES NO

If the answer is YES, proceed to Question #13

If the answer is NO, proceed to Question #12

Question #12 Will the facility be willing to control the benzene emissions exiting the SVEU stack in order to comply with question #11 above?

YES NO

If the answer is YES, proceed to Question #13

If the answer is NO, the facility does not qualify for coverage under the general permit and must obtain an individual permit. Please contact the Air Quality Permits Section at ADEQ for assistance.

Question #13 Will the SVEU inlet stream have a VOC concentration less than 20,000 ppmv?

YES NO

If the answer is YES, proceed to Question #14

If the answer is NO, the facility does not qualify for coverage under the general permit and must obtain an individual permit. Please contact the Air Quality Permits Section at ADEQ for assistance.

Question #14 Will the stack height for this SVEU be at least 13 feet above ground level?

YES NO

If the answer is YES, proceed to Question #15

If the answer is NO, the facility does not qualify for coverage under the general permit and must obtain an individual permit. Please contact the Air Quality Permits Section at ADEQ for assistance.

Question #15 Is the SVEU either electrically powered or fueled with natural gas or propane?

YES NO

If the answer is YES, proceed to Question #16

If the answer is NO, the facility does not qualify for coverage under the general permit and must obtain an individual permit. Please contact the Air Quality Permits Section at ADEQ for assistance.

Question #16 Will the SVEU operate utilizing carbon adsorption?

YES NO

If the answer is YES, proceed to Question #17

If the answer is NO, proceed to Question #18

Question #17 When the SVEU is utilizing carbon adsorption, will the gases entering the SVEU system be fed through a minimum of two granulated activated carbon (GAC) canisters arranged in series?

YES NO

If the answer is YES, the facility qualifies for coverage under this general permit.

If the answer is NO, the facility does not qualify for coverage under the general permit and must obtain an individual permit. Please contact the Air Quality Permits Section at ADEQ for assistance.

Question #18 Will the SVEU operate utilizing thermal oxidation?

YES NO

If the answer is YES, proceed to Question #19

If the answer is NO, proceed to Question #20

Question #19 When the SVEU is operating utilizing thermal oxidation, will the process temperature be equal to or greater than 1400 degrees Fahrenheit (°F)?

YES NO

If the answer is YES, proceed to Question #22.

If the answer is NO, the facility does not qualify for coverage under the general permit and must obtain an individual permit. Please contact the Air Quality Permits Section at ADEQ for assistance.

Question #20 Will the SVEU operate utilizing catalytic oxidation?

YES NO

If the answer is YES, proceed to Question #21.

If the answer is NO for questions #16, #19, and #21, the facility does not qualify for coverage under the general permit and must obtain an individual permit. Please contact the Air Quality Permits Section at ADEQ for assistance.

Question #21 When the SVEU is operating in catalytic oxidation mode, will the process temperature be equal to or greater than 600 °F?

YES NO

If the answer is YES, proceed to Question #22.

If the answer is NO, the facility does not qualify for coverage under the general permit and must obtain an individual permit. Please contact the Air Quality Permits Section at ADEQ for assistance.

Question #22 If operating the SVEU utilizing thermal or catalytic oxidation, do the gases exiting the SVEU have an exit velocity equal to or greater than 2.30 actual meters per second (m/s) as calculated in Form C.

YES NO

If the answer is YES, the facility qualifies for coverage under this general permit.

If the answer is NO, the facility does not qualify for coverage under the general permit and must obtain an individual permit. Please contact the Air Quality Permits Section at ADEQ for assistance.

FORM C

Exhaust Gas Exit Velocity Calculations

Exhaust Velocity Calculating Steps

Step 1: Exhaust Stack Diameter (multiplication)

Inches to Meters		Feet to Meters		
Inches (in)	Conversion Factor	Feet (ft)	Conversion Factor	Meters (m)
	0.0254		0.3048	

- a. Insert manufacturer's listed exit stack diameter in the proper units slot.
- b. If listed stack diameter is given in meters proceed to Step 2 of conversions.
- c. If listed stack diameter is given in either inches or feet multiply by associated conversion factor from table to achieve diameter in meters.

Step 2: Exhaust Stack Area (multiplication)

Stack Diameter (m)	Diameter Squared (m ²)	Conversion Factor For Area	Exhaust Stack Area (m ²)
		0.7854	

- a. Insert final meter calculation from Step 1 above, into "Stack Diameter" slot.
- b. Square diameter and enter resulting number into "Diameter Squared" slot.
- c. Multiply number in "Diameter Squared" slot by the number found in the "Conversion Factor for Area" slot, and record in the "Exhaust Stack Area" slot.

Step 3: Exhaust Flow Rate (multiplication)

Actual Cubic Feet per Minute (ACFM) to Actual Cubic Meters per Second (ACMS)		
ACFM	Conversion Factor	ACMS
	0.0004719	

- a. If manufacturer's listed exhaust flow rate is given in ACFM rather than in ACMS, insert ACFM number into "ACFM" slot and multiply by the associated conversion factor and record in the "ACMS" slot and proceed to Step 4.
- b. If manufacturer's listed exhaust flow rate is given in ACMS then record in proper slot in table and proceed to Step 4.

Step 4: Exhaust Gas Exit Velocity (division)

Exhaust Flow Rate (ACMS)	Exhaust Stack Area (m ²)	Exhaust Gas Exit Velocity (meters/second)

- a. Insert number from Step 3 "ACMS" slot into "Exhaust Flow Rate" slot.
- b. Insert calculated value from "Exhaust Stack Area" of Step 2 into "Exhaust Stack Area" slot above.
- c. Divide "Exhaust Flow Rate" value by the "Exhaust Stack Area" value, and record result in "Exhaust Gas Exit Velocity" slot.

FORM D
Equipment List
(Fill out every column)

Type of Equipment	Capacity	Make/Model	Manufacture Date	Serial #	Equipment ID

FORM E

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: _____

FORM F
Fee Summary
Fees for General Permit for Soil Vapor Extraction Units

GENERAL PERMIT

CLASS II

NON - TITLE V

APPLICATION FEE

\$500

ANNUAL INSPECTION FEE

\$3,020

There is a \$500 fee for facility changes that require the issuance of new Authorizations to Operate.

There is no fee for transfers, administrative amendments, or facility change notices that do not require a permit revision.

Annual inspection fees are due no later than February 1st of each year.