

ARIZONA DEPARTMENT OF ENVIRONMENTAL QUALITY
Air Quality Division
1110 West Washington Street • Phoenix, AZ 85007 • Phone: 602-771-2338

**AIR QUALITY CONTROL
GENERAL PERMIT
FOR
SOIL VAPOR EXTRACTION UNITS
(SVEUs)**

(As Required by Arizona Revised Statutes (A.R.S.) Title 49, Chapter 3, Article 2, Section § 49-426)

This air quality control general permit does not relieve applicant of responsibility for meeting all air pollution regulations.



THIS GENERAL PERMIT ISSUED SUBJECT TO THE FOLLOWING Conditions Contained in Attachments "A", "B" and "C".

PERMIT CLASS II EXPIRATION DATE Date Pending

PERMIT ISSUED THIS Day Pending DAY OF JUNE 2026

SIGNATURE Daniel Czecholinski, Director, Air Quality Division
TITLE

**AIR QUALITY GENERAL PERMIT
FOR SVEUs**

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**AIR QUALITY CONTROL GENERAL PERMIT
FOR SVEUs**

ATTACHMENT "A": GENERAL PROVISIONS

I. PERMIT EXPIRATION AND RENEWAL

[A.R.S. § 49-426.F, A.A.C. R18-2-306.A.1, and -505]

- A.** This General Permit is valid for a period of five (5) years from the date of issuance. The Director shall review and may renew this General Permit every five years from its date of issuance. All Permittee's Authorizations to Operate (ATOs) shall coincide with the term of this General Permit, regardless of when the individual authorization began during this five-year period, except that the Director may require a Permittee authorized to operate under this General Permit to apply for and obtain an individual permit at any time, if the source is not in compliance with the terms and conditions of this General Permit.
- B.** At the time the General Permit is renewed, the Director shall notify in writing all Permittees who have been granted, or who have applications pending for ATO(s) under this General Permit. The written notice shall describe the source's duty to reapply and may include requests for information required under the proposed General Permit.

II. COMPLIANCE WITH PERMIT CONDITIONS

- A.** The Permittee shall comply with all conditions of this General Permit including all applicable requirements of the Arizona Revised Statutes (A.R.S.) § Title 49, Chapter 3, and the air quality rules under Title 18, Chapter 2 of the Arizona Administrative Code. Any General Permit noncompliance is grounds for enforcement action; for General Permit termination, revocation and reissuance, or revision; or for denial of a General Permit renewal application. In addition, noncompliance with any federally enforceable requirement constitutes a violation of the Clean Air Act.

[A.A.C. R18-2-306.A.8.a]

- B.** It shall not be a defense for a Permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit General Permit.

[A.A.C. R18-2-306.A.8.b]

**III. GENERAL PERMIT REOPENINGS, REVOCATION AND REISSUANCE, OR
TERMINATION FOR CAUSE**

- A.** This General Permit shall be reopened and revised under any of the following:
 - 1.** The Director has determined that the emissions from the sources in the facility class cause or contribute to ambient air quality standards violations which are not adequately addressed by the requirements in this General Permit;

[A.A.C. R18-2-510.A.1]

2. The Director has determined that the terms and conditions of this General Permit no longer meet the requirements of A.R.S. § 49-426 and -427.

[A.A.C. R18-2-510.A.2]

- B.** The Director shall provide written notice to all sources operating under this General Permit prior to reissuance or termination of this General Permit. Such notice shall include an explanation of the basis for the proposed action. Within 180 days of receipt of the notice of the expiration, termination or cancellation of this General Permit, sources notified shall submit an application to the Director for the appropriate permit.

[A.A.C. R18-2-510.B]

- C.** The Director may require a source authorized to operate under this General Permit to apply for and obtain an individual source permit at any time if:

1. The source is not in compliance with the terms and conditions of this General Permit;
2. The Director has determined that the emissions from the source or facility class are significant contributors to ambient air quality standard violations which are not adequately addressed by the requirements in this General Permit;
3. The Director has information which indicates that the effects on human health and the environment from the sources covered are unacceptable under the General Permit;
4. The Director has reasonable cause to believe that the ATO was obtained by fraud or misrepresentation; or
5. The person applying for an ATO failed to disclose a material fact required by the permit application or the regulations applicable to the ATO of which the applicant had or should have had knowledge at the time the application was submitted.

[A.A.C. R18-2-510.C]

- D.** If the Director revokes a source's authority to operate under this General Permit, the Director shall notify the Permittee by certified mail, return receipt requested. The notice shall include a statement detailing the grounds for the revocation of authority and a statement that the Permittee is entitled to a hearing. A source previously authorized to operate under this General Permit may operate under the terms of this General Permit until the earlier of the date it submits a complete application for an individual permit, at which time it may operate under that application, or 180 days after receipt of the notice of revocation of authority to operate under this General Permit.

[A.A.C. R18-2-510.D]

IV. POSTING OF GENERAL PERMIT

[A.A.C. R18-2-315]

- A.** The Permittee shall post this General Permit or a certificate of General Permit coverage at the location where the equipment is installed in such a manner as to

be clearly visible and accessible.

B. Equipment Labels

1. All portable equipment covered by this General Permit that has been issued an ATO shall have either an ADEQ certified label which will include the current permit number and ATO number, and the serial or other equipment number, or be clearly marked with one of the following:
 - a. The current permit number and ATO number,
 - b. A serial number or other equipment number that is also listed in the ATO.
2. All equipment covered by this General Permit but not issued an ATO shall be clearly marked with one of the following:
 - a. The current permit number,
 - b. A serial number or other equipment number that is also listed in the permit application.

C. A copy of the complete General Permit and associated ATOs shall be kept on the site.

[A.A.C. R18-2-315.B]

V. FEE PAYMENT

The Permittee shall pay fees to the Director pursuant to A.R.S. § 49-426(E) and A.A.C. R18-2-511.

[A.A.C. R18-2-306.A.9 and -511]

VI. EMISSIONS INVENTORY QUESTIONNAIRE

A. The Permittee shall complete and submit to the Director an emissions inventory questionnaire no later than June 1 every three years beginning June 1, 2021 and shall include emissions information for the previous three calendar years.

[A.A.C. R18-2-327.A]

B. The questionnaire shall be on an electronic or paper form provided by the Director and shall include the information required by A.A.C. R18-2-327.A.3 for the previous calendar year.

[A.A.C. R18-2-327.A.3]

VII. COMPLIANCE CERTIFICATION

A. The Permittee shall submit a compliance certification to the Director annually which describes the compliance status of the source with respect to each General Permit condition. The Permittee shall list on the compliance certification all pieces of equipment issued ATO(s), on-site at the time of annual certification. This certification shall be submitted by October 15th and shall cover the period from

September 1st of the previous year to August 31st of the current year. The Permittee can submit compliance certifications, excess emissions and permit deviations via myDEQ, the Arizona Department of Environmental Quality's online portal.

[A.A.C. R18-2-309.2.a and d]

B. The compliance certification shall include the following:

1. Identification of each term or condition of the permit that is the basis of the certification;
[A.A.C. R18-2-309.2.c.i]
2. Identification of the method or other means used by the Permittee for determining the compliance status with each term and condition during the certification period;
[A.A.C. R18-2-309.2.c.ii]
3. The status of compliance with the terms and conditions of the permit for the period covered by the certification, including whether compliance during the period was continuous or intermittent. The certification shall be based on the methods or means designated in Condition VII.B.2 above. The certifications shall identify each deviation and take it into account for consideration in the compliance certification;
[A.A.C. R18-2-309.2.c.iii]
4. All instances of deviations from permit requirements reported pursuant to Condition XII.B of this Attachment; and
[A.A.C. R18-2-306.A.5.a]
5. Other facts the Director may require to determine the compliance status of the source.
[A.A.C. R18-2-309.2.c.iv]

VIII. CERTIFICATION OF TRUTH, ACCURACY, AND COMPLETENESS

Any document required to be submitted by this General Permit, including reports, shall contain a certification by a responsible official of truth, accuracy, and completeness. This certification shall state that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.

[A.A.C. R18-2-309.3]

IX. INSPECTION AND ENTRY

Upon presentation of proper credentials, the Permittee shall allow the Director or the authorized representative of the Director to:

- A. Enter upon the Permittee's premises where a source is located, emissions-related activity is conducted, or where records are required to be kept under the conditions of the permit;
[A.A.C. R18-2-309.4.a]
- B. Have access to and copy, at reasonable times, any records that are required to be kept under the conditions of this General Permit;
[A.A.C. R18-2-309.4.b]

C. Inspect, at reasonable times, any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under this General Permit;

[A.A.C. R18-2-309.4.c]

D. Sample or monitor, at reasonable times, substances or parameters for the purpose of assuring compliance with the permit or other applicable requirements; and

[A.A.C. R18-2-309.4.d]

E. Record any inspection by use of written, electronic, magnetic and photographic media.

[A.A.C. R18-2-309.4.e]

X. PERMIT REVISION PURSUANT TO FEDERAL HAZARDOUS AIR POLLUTANT STANDARD

If the sources which have been issued ATOs become subject to a standard promulgated by the EPA Administrator pursuant to Section 112(d) of the Clean Air Act, then the Permittee shall, within twelve (12) months of the date on which the standard is promulgated, reapply for coverage under the General Permit demonstrating how the sources will comply with the standard.

[A.A.C. R18-2-304.D.3]

XI. ACCIDENTAL RELEASE PROGRAM

If a source which has been granted coverage under this General Permit becomes subject to the provisions of 40 CFR Part 68, then the Permittee shall comply with these provisions according to the timeline specified in 40 CFR Part 68.

[40 CFR Part 68]

XII. EXCESS EMISSIONS AND PERMIT DEVIATIONS

A. Excess Emissions Reporting

1. Excess Emissions shall be reported as follows:

a. The Permittee shall report to the Director any emissions in excess of the limits established by this permit. Such report shall be in two parts as specified below:

[A.A.C. R18-2-310.01.A]

(1) Notification via myDEQ, telephone, or facsimile within 24 hours of the time when the Permittee first learned of the occurrence of excess emissions including all available information from Condition XII.A.1.b below.

[A.A.C. R18-2-310.01.A.1]

(2) Detailed written notification by submission of an excess emissions report within 72 hours of the notification pursuant to Condition XII.A.1.a(1) above.

[A.A.C. R18-2-310.01.A.2]

b. The report shall contain the following information:

- (1) Identity of each stack or other emission point where the excess emissions occurred;
[A.A.C. R18-2-310.01.B.1]
- (2) Magnitude of the excess emissions expressed in the units of the applicable emission limitation and the operating data and calculations used in determining the magnitude of the excess emissions;
[A.A.C. R18-2-310.01.B.2]
- (3) Time and duration, or expected duration, of the excess emissions;
[A.A.C. R18-2-310.01.B.3]
- (4) Identity of the equipment from which the excess emissions emanated;
[A.A.C. R18-2-310.01.B.4]
- (5) Nature and cause of the emissions;
[A.A.C. R18-2-310.01.B.5]
- (6) If the excess emissions were the result of a malfunction, steps taken to remedy the malfunction and the steps taken or planned to prevent the recurrence of such malfunctions;
[A.A.C. R18-2-310.01.B.6]
- (7) Steps that were or are being taken to limit the excess emissions; and
[A.A.C. R18-2-310.01.B.7]
- (8) If the excess emissions resulted from start-up or malfunction, the report shall contain a list of the steps taken to comply with the permit procedures governing source operation during periods of startup or malfunction.
[A.A.C. R18-2-310.01.B.8]

2. In the case of continuous or recurring excess emissions, the notification requirements shall be satisfied if the source provides the required notification after excess emissions are first detected and includes in such notification an estimate of the time the excess emissions will continue. Excess emissions occurring after the estimated time period, or changes in the nature of the emissions as originally reported, shall require additional notification pursuant to Condition XII.A.1 above.

[A.A.C. R18-2-310.01.C]

B. Permit Deviations Reporting

The Permittee shall promptly report deviations from this General Permit requirements, including those attributable to upset conditions as defined in this General Permit, the probable cause of such deviations, and any corrective actions or preventive measures taken. Where the applicable requirement contains a definition of prompt or otherwise specifies a timeframe for reporting deviations, that definition or timeframe shall govern.

Where the applicable requirement does not address the timeframe for reporting deviations, the Permittee shall submit reports of deviations according to the following schedule:

1. Notice that complies with Condition XII.A above is prompt for deviations that constitute excess emissions;
[A.A.C. R18-2-306.A.5.b.i]
2. Notice that is submitted within two (2) working days of discovery of the deviation is prompt for deviations of permit conditions identified by in Attachment "B";
[A.A.C. R18-2-306.A.5.b.ii]
3. Except as provided in Conditions XII.B.1 and XII.B.2, prompt notification of all other types of deviation shall be submitted annually, concurrent with the annual compliance certification required in Section VII and can be submitted via myDEQ, the Arizona Department of Environmental Quality's online portal.
[A.A.C. R18-2-306.A.5.b.ii]

XIII. RECORDKEEPING REQUIREMENTS

- A. The Permittee shall keep records of all required monitoring information including, but not limited to, the following;
[A.A.C. R18-2-306.A.4.a]
 1. The date, place as defined in the permit, and time of sampling or measurements;
 2. The date(s) analyses were performed;
 3. The name of the company or entity that performed the analyses;
 4. A description of the analytical techniques or methods used;
 5. The results of such analyses; and
 6. The operating conditions existing at the time of sampling or measurement.
- B. The Permittee shall retain records of all required monitoring data and support information for a period of at least five (5) years from the date of the monitoring sample, measurement, report, or application. Support information includes all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by the General Permit.
[A.A.C. R18-2-306.A.4.b]
- C. All required records shall be maintained either in an unchangeable electronic format or in a handwritten logbook utilizing indelible ink.
[A.A.C. R18-2-306.A.4.b]

XIV. REPORTING REQUIREMENTS

The Permittee shall submit the following reports:

[A.A.C. R18-2-306.A.5]

- A. Compliance certifications in accordance with Section VII above.
- B. Excess emissions and permit deviations in accordance with Section XII above.
- C. Other reports required by any condition in other Attachments.

XV. DUTY TO PROVIDE INFORMATION

- A. The Permittee shall furnish to the Director, within a reasonable time, any information that the Director may request in writing to determine whether cause exists for revoking the General Permit coverage, or to determine compliance with this General Permit. Upon request, the Permittee shall also furnish to the Director copies of records that the Permittee is required to keep under the General Permit. For information claimed confidential, the Permittee shall furnish an additional copy of such records directly to the Director along with a claim of confidentiality.

[A.A.C. R18-2-306.A.8.e]

- B. If the Permittee has failed to submit any relevant facts or if the Permittee has submitted incorrect information in a General Permit coverage application, the Permittee shall, upon becoming aware of such failure or incorrect submittal, promptly submit such supplementary facts or corrected information.

[A.A.C. R18-2-304.H]

XVI. CHANGES TO FACILITIES GRANTED COVERAGE UNDER GENERAL PERMITS

A. Facility Changes that Require New Authorization to Operate

The following changes at a source that has been granted coverage under this General Permit shall be made only after the source requests new authorization to operate from the Director:

[A.A.C. R18-2-512.B]

- 1. Adding new emissions units that require new authorization to operate; and
- 2. Installing replacement emissions units that require authorization to operate.

B. Facility Changes that Do Not Require Authorization to Operate

The following changes at a source that has been granted coverage under this General Permit shall be made only after the source provides written notification to the Department:

[A.A.C. R18-2-512.C]

- 1. Adding new emissions units that do not require authorization to operate,

2. Installing a replacement emissions unit with a higher capacity that does not require authorization to operate; and
 3. Adding or replacing air pollution control equipment.
- C. A source that has been granted coverage under this General Permit shall keep a record of any physical change or change in the method of operation that could affect emissions. The record shall include a description of the change and the date the change occurred.
- [A.A.C. R18-2-512.D]
- D. For sources that submit a request or notification under Section XIV, the applicant shall provide information identifying and describing the source, its processes, and operating conditions in sufficient detail to allow the Director to determine continued qualification for, and to assure compliance with, the General Permit. The Director shall act on a request for new authority to operate under the General Permit as expeditiously as possible. The source may operate under the terms of the applicable the General Permit during that time.
- [A.A.C. R18-2-512.E]

XVII. TESTING REQUIREMENTS

[A.A.C. R18-2-312]

- A. The Permittee shall conduct performance tests as specified in the General Permit and at such other times as may be required by the Director.
- B. Operational Conditions During Performance Testing
- Tests shall be conducted during operation at the maximum possible capacity of each unit under representative operational conditions unless other conditions are required by the applicable test method or in this General Permit. With prior written approval from the Director, testing may be performed at a lower rate. Operations during periods of start-up, shutdown, and malfunction (as defined in A.A.C. R18-2-101) shall not constitute representative operational conditions unless otherwise specified in the applicable standard.
- C. Tests shall be conducted and data reduced in accordance with the test methods and procedures contained in the Arizona Testing Manual unless modified by the Director pursuant to A.A.C. R18-2-312.B.
- D. Test Plan
- At least fourteen (14) calendar days prior to performing a test, the Permittee shall submit a test plan to the Director in accordance with A.A.C. R18-2-312.B and the Arizona Testing Manual. This test plan must include the following:

[A.A.C. R18-2-312.B and D]

1. Test duration;
2. Test location(s);

3. Test method(s); and
4. Source operation and other parameters that may affect the test result.

E. Stack Sampling Facilities

The Permittee shall provide or cause to be provided, performance testing facilities as follows:

1. Sampling ports adequate for test methods applicable to the facility;
2. Safe sampling platform(s);
3. Safe access to sampling platform(s); and
4. Utilities for sampling and testing equipment.

[A.A.C. R18-2-312.E]

F. Interpretation of Final Results

Each performance test shall consist of three (3) separate runs using the applicable test method. Each run shall be conducted for the time and under the conditions specified in the applicable standard. For the purpose of determining compliance with an applicable standard, the arithmetic mean of the results of the three runs shall apply. In the event that a sample is accidentally lost or conditions occur in which one of the three runs is required to be discontinued because of forced shutdown, failure of an irreplaceable portion of the sample train, extreme meteorological conditions, or other circumstances beyond the Permittee's control, compliance may, upon the Director's approval, be determined using the arithmetic mean of the results of the other two runs. If the Director or the Director's designee is present, tests may only be stopped with the Director's or such designee's approval. If the Director or the Director's designee is not present, tests may only be stopped for good cause. Good cause includes: forced shutdown, failure of an irreplaceable portion of the sample train, extreme meteorological conditions, or other circumstances beyond the Permittee's control. Termination of any test without good cause after the first run is commenced shall constitute a failure of the test. Supporting documentation, which demonstrates good cause, must be submitted.

[A.A.C. R18-2-306.A.3.c and -312.F]

G. Report of Final Results

A written report of the results of all performance tests shall be submitted to the Director within 60 days after the test is performed. The report shall be submitted in accordance with the Arizona Testing Manual and A.A.C. R18-2-312.A.

XVIII. PROPERTY RIGHTS

This General Permit does not convey any property rights of any sort, or any exclusive privilege.

[A.A.C. R18-2-306.A.8.d]

XIX. SEVERABILITY CLAUSE

The provisions of this General Permit are severable. In the event of a challenge to any portion of this General Permit, or if any portion of the General Permit is held invalid, the remaining permit conditions remain valid and in force.

[A.A.C. R18-2-306.A.7]

XX. PERMIT SHIELD

Compliance with the conditions of this General Permit shall be deemed compliance with all applicable requirements in effect on the date of General Permit issuance, provided that such applicable requirements are included and expressly identified in this General Permit. The permit shield shall not apply to any changes made pursuant to Section XV of this Attachment.

[A.A.C. R18-2-325]

XXI. PROTECTION OF STRATOSPHERIC OZONE

If this source becomes subject to the provisions of 40 CFR Part 82, then the Permittee shall comply with these provisions accordingly.

[40 CFR Part 82]

XXII. APPLICABILITY OF NSPS GENERAL PROVISIONS

For all equipment subject to a New Source Performance Standard, the Permittee shall comply with all applicable requirements contained in Subpart A of Title 40, Chapter 60 of the Code of Federal Regulations.

[40 CFR 60]

XXIII. APPLICABILITY OF NSPS/NESHAP GENERAL PROVISIONS

For all equipment subject to a New Source Performance Standards or a National Emission Standards for Hazardous Air Pollutants, the Permittee shall comply with all applicable requirements contained in Subpart A of Title 40, Chapter 60 and Chapter 63 of the Code of Federal Regulations.

[40 CFR Part 60 Subpart A and Part 63 Subpart A]

ATTACHMENT "B": SPECIFIC CONDITIONS

I. RELATIONSHIP OF PERMIT TO APPLICABLE STATE IMPLEMENTATION PLAN

This General Permit is issued pursuant to the provisions of Arizona Revised Statutes (A.R.S.) and constitutes an Installation Permit for the purpose of the applicable State Implementation Plan.

[A.R.S. §49-404.C and -426]

II. CONDITIONS FOR COVERAGE

[A.A.C. R18-2-306.01 and -513.E]

- A.** This General Permit covers sources which meet the requirements as specified in the general permit application for Soil Vapor Extraction Units.
- B.** The Permittee shall submit compliance certifications except move notices via myDEQ, the Arizona Department of Environmental Quality's online portal.

III. FACILITY-WIDE REQUIREMENTS

A. Applicability

This Section applies to facility-wide requirements.

B. Operating Limitations and Standards

- 1. For the purposes of this General Permit, the Soil Vapor Extraction Unit (SVEU) shall be defined as both the vapor extraction device and associated control device - thermal oxidizer, catalytic oxidizer, or carbon adsorption.
[A.A.C. R18-2-513]
- 2. The Permittee shall display the name, address, and phone number of a current contact person in a manner that is clearly visible and accessible at the site of the SVEU.
[A.A.C. R18-2-513]
- 3. The Permittee shall operate and maintain the equipment identified in the Authorization to Operate (ATO) in accordance with manufacturer's specifications.
[A.A.C. R18-2-513]
- 4. Where a stack, vent or other outlet is at such a level that fumes, gas mist, odor, smoke, vapor or any combination thereof constituting air pollution is discharged to adjoining property, the Director may require the installation of abatement equipment or the alteration of such stack, vent, or other outlet by the Permittee thereof to a degree that will adequately dilute, reduce or eliminate the discharge of air pollution to adjoining property.
[A.A.C. R18-2-730.G]
- 5. The Permittee shall not emit gaseous or odorous material from equipment, operations or premises under their control in such quantities or concentrations as to cause air pollution.
[A.A.C. R18-2-730.D]

6. The stack height shall not be less than 13 feet from ground level for the SVEU.
[A.A.C. R18-2-334]
7. The Permittee shall not directly discharge Volatile Organic Compounds (VOCs) into the atmosphere at any time without passing through the operating air pollution control device identified in the ATO.
[A.A.C. R18-2-513]
8. The Permittee shall use only natural gas, propane, or electric power to operate the SVEU.
[A.A.C. R18-2-513]
9. *The Permittee shall not remediate any gas stream entering any of the control devices mentioned in Condition IV.B.1 with a total VOC concentration greater than 20,000 parts per million by volume (ppmv) or the manufacturer's specifications, whichever is less for the SVEU.*
[A.A.C. R18-2-306.01.A and -331.A.3.a]
[Material Permit Conditions are indicated by underlines and italics]
10. The Permittee shall not process Resources Conservation Recovery Act (RCRA) hazardous waste.
[A.A.C. R18-2-513]

C. Monitoring and Recordkeeping Requirements

1. The Permittee shall maintain copies of the manufacturer's specifications for all of the equipment identified in the ATO on site.
[A.A.C. R18-2-306.A.4]
2. The Permittee shall retain records of all required data and support documentation for a minimum of five (5) years from the date of generation in accordance with Section XII of Attachment "A".
[A.A.C. R18-2-306.A.4]

D. Reporting Requirements

Pursuant to Condition XV of Attachment "A", the Permittee shall submit reports of all monitoring, recordkeeping, and testing activities required by Attachment "B" performed during the annual compliance certification as specified in Condition VII of Attachment "A".
[A.A.C. R18-2-306.A.5]

E. Permit Shield

Compliance with the Conditions of this Section shall be deemed compliance with A.A.C. R18-2-334, -513, -730.D and -730.G.
[A.A.C. R18-2-325]

IV. THERMAL AND CATALYTIC OXIDIZER REQUIREMENTS

A. Applicability

This Section applies to SVEUs equipped with thermal or catalytic oxidizers.

B. Operating Requirements

1. *The Permittee shall operate the thermal or catalytic oxidizer such that it shall achieve a minimum destruction efficiency of 90 percent for VOCs. This limitation is not applicable when the inlet concentration of VOCs is less than or equal to 1,000 ppmv.*

[A.A.C. R18-2-306.01.A and -331.A.3.a]

[Material Permit Conditions are indicated by underlines and italics]

2. The Permittee shall maintain the process temperature of the thermal oxidizer to be equal to or greater than 1,400 °F. The Permittee shall maintain the process temperature of the catalytic oxidizer to be equal to or greater than 600°F. The process temperature shall be defined as the temperature of the thermal or catalytic oxidizer of the SVEU.

[A.A.C. R18-2-513]

3. *The Permittee shall not remediate any gas stream at the inlet of an SVEU using catalytic or thermal oxidizer with a mass flowrate of halogenated compounds greater than 0.052 grams/second.*

[A.A.C. R18-2-334 and -331.A.3.a]

[Material Permit Conditions are indicated by underlines and italics]

4. For the purposes of this general permit, the term halogenated compounds includes the following:

1,1,1,2-Tetrachloroethane	Bromoform	Glycerol trichlorohydrin
1,1,1-Trichloroethane	Bromomethane	Hexachlorobutadiene
1,1,2,2-Tetrachloroethane	Carbon tetrachloride	Hexachlorocyclopentadiene
1,1,2-Trichloroethane	Chlorodibromomethane	Hexachloroethane
1,1-Dichloroethane	Chloroethane	Methylene chloride
1,1-Dichloroethylene	Chloroform	Neoprene
1,2,2-Trifluoroethane (Freon 113)	Chloromethane	Pentachloroethane
1,2-Dichloroethane	Chloropropane	Perchloroethylene
1,2-Dichloropropane	Cis-1,2-dichloroethylene	Propylene dichloride
1,2-Trans-dichloroethylene	Cis-1,3-dichloropropene	Trichlorotrifluoroethane
1,3-cis-dichloro-1-propene	Dibromochloropropane	Monochlorobenzene
1,3-trans-dichloropropene	Dibromomethane	Tetrachloroethylene (Perchloroethylene) (PCE)
1-chloro-2-propene	Dichlorobromomethane	Trichloroethylene (TCE)
2-butylene dichloride	Dichloromethane	Vinyl chloride
Acetylene tetrachloride	Ethylene dibromide	Vinyl trichloride
Bromodichloromethane	Fluorotrichloromethane (Freon 11)	Vinylidene chloride

5. The Permittee shall show compliance with Condition IV.B.3 above using Equation 1 below by converting the concentration a flow rate into the

applicable mass flow rate basis.

Equation 1:

$$C_c \times F < 20,000 \left[ppmv \left(\frac{Ft^3}{Min} \right) * SCFM \right]$$

Where:

C_c = Sum of Concentrations of All Halogenated Compounds, ppmv

F = Flowrate in Standard Cubic Feet per Minute (SCFM)

[A.A.C. R18-2-306.01.A]

6. The Permittee shall install and maintain a temperature recording device with an accuracy of ± 5 degrees Fahrenheit ($^{\circ}F$) to measure and continuously record the process temperature of the thermal or catalytic oxidizer.

[A.A.C. R18-2-306.01.A and -331.A.3.c]

[Material Permit Conditions are indicated by underlines and italics]

C. Particulate Matter (PM/PM₁₀/PM_{2.5}) and Opacity

1. Emissions Limitations and Standards

- a. The Permittee shall not discharge particulate matter into the atmosphere in any one hour from the thermal or catalytic oxidizer in total quantities in excess of the amount calculated by the following equation:

$$E = 4.10P^{0.67}$$

where:

E = the maximum allowable particulate emissions rate in pounds-mass per hour

P = the process weight rate in tons-mass per hour

[A.A.C. R18-2-730.A.1.a]

- b. The opacity of any plume or effluent shall not be greater than 20 percent.

[A.A.C. R 18-2-702.B.1]

- c. If the presence of uncombined water is the only reason for an exceedance of the opacity limit above, the exceedance shall not constitute a violation.

[A.A.C. R18-2-702.C]

2. Permit Shield

Compliance with the Conditions of this Section shall be deemed compliance with A.A.C. R18-2-513, -730.A, -702.B and -702.C.

[A.A.C. R18-2-325]

D. Volatile Organic Compounds

1. Emissions Limitation

The Permittee shall limit VOC emissions to 90 tons per year on a 12-month rolling basis exiting the SVEU.

[A.A.C. R18-2-306.01.A and -331.A.3.a]

[Material Permit Conditions are indicated by underlines and italics]

2. Monitoring Requirements

a. At each location at which the SVEU is operated, the Permittee shall take a grab sample of the inlet and outlet vapor stream of the SVEU device upon startup at each new location, and then once every two (2) weeks for the first six (6) weeks, then monthly for the following six (6) months, and then quarterly thereafter.

[A.A.C. R18-2-306.A.3]

b. The Permittee shall determine from the grab samples taken in accordance with Condition IV.D.2.a above, the concentration of VOCs and halogenated compounds at the inlet of the SVEU and the concentration of the VOCs exiting the SVEU. The Permittee shall analyze the samples using EPA Reference Method 8260D or EPA Method TO-15A (Latest Approved Version), or equivalent methods approved by the Director.

[A.A.C. R18-2-306.A.3]

3. Recordkeeping Requirements

a. The Permittee shall calculate and record VOC emissions at the end of each month and on a 12-month rolling basis. Appendix "A" explains how to complete this calculation. Emissions shall be calculated using the gas samples exiting the SVEU in accordance with the following:

(1) The first sampling results shall be used to calculate emissions until the second sampling date;

(2) The second sampling results shall be used to calculate emissions that occur after the second sampling date until the third sampling date; and

(3) The Permittee shall continue the methodology in Conditions IV.D.3.a(1) and IV.D.3.a(2) above until the SVEU changes location, at which time the sampling sequence starts over. VOC emissions from the previous location must still be accounted for in the 12-month rolling basis.

[A.A.C. R18-2-306.A.4]

- b. The Permittee shall sum the concentration of all halogenated compounds in parts per million by volume (ppmv) identified in the analysis required in Condition IV.D.2.b above in order to determine compliance with the allowable inlet concentration in Condition IV.B.1.

[A.A.C. R18-2-306.01]

- c. The following information shall be recorded for each grab sample, in tabular format.

- (1) Date of sampling, and type of control device in use;
- (2) Site elevation (Feet Above Mean Sea Level - AMSL);
- (3) The flowrate entering the SVEU control device in standard cubic feet per minute;
- (4) The process temperature of the SVEU in °F;
- (5) The combined total concentration of all halogenated compounds at the inlet of the SVEU control device in ppmv;
- (6) The concentration of VOCs at the inlet of the SVEU control device in ppmv; and
- (7) The VOC destruction efficiency for the SVEU.

[A.A.C. R18-2-306.A.4]

4. Reporting Requirements

A written report of the results of all the grab samples performed during the compliance term specified in Section VII of Attachment "A" shall be submitted to the Director in accordance with the reporting requirements in Section XV of Attachment "A".

[A.A.C. R18-2-306.A.5]

E. Nitrogen Oxides

1. Emissions Limitation

The Permittee shall not discharge nitrogen oxides into the atmosphere in a concentration greater than 500 parts per million.

[A.A.C. R18-2-730.A.3]

2. Permit Shield

Compliance with the Condition of this Section shall be deemed compliance with A.A.C. R18-2-730.A.3.

[A.A.C. R18-2-325]

F. Sulfur Dioxide

1. Emissions Limitation

The Permittee shall not discharge sulfur dioxide into the atmosphere in a concentration greater than 600 parts per million.

[A.A.C. R18-2-730.A.2]

2. Permit Shield

Compliance with the Condition of this Section shall be deemed compliance with A.A.C. R18-2-730.A.2.

[A.A.C. R18-2-325]

V. CARBON ADSORPTION REQUIREMENTS

A. Applicability

This Section applies to SVEUs equipped with carbon adsorbers.

B. Operating Requirements

1. *If a carbon adsorber is used, the Permittee shall maintain a minimum of 2 granulated activated carbon (GAC) canisters arranged in series.*

[A.A.C. R18-2-331.A.3.e]

[Material Permit Conditions are indicated by underlines and italics]

2. The Permittee shall use the carbon adsorption unit to remove VOCs from the gases entering the SVEU only when the inlet concentration is less than the manufacturer's recommended maximum VOC concentration for the GAC canisters.

[A.A.C. R18-2-513]

3. The Permittee shall not exceed the manufacturer's recommended flowrate to each GAC canister.

[A.A.C. R18-2-513]

4. The Permittee shall replace the GAC canisters when the calculated breakthrough time for the first stage GAC canister is reached. The monitoring required by Condition V.E.2.a below, along with other relevant factors including the working capacity of the GAC canister shall be used to determine the time the system can operate before breakthrough occurs. Breakthrough shall be defined as less than 90 percent destruction efficiency of VOCs.

[A.A.C. R18-2-513]

5. The Permittee shall determine breakthrough by either testing or calculation. Whenever breakthrough is determined either by testing or calculation at the outlet of the first stage carbon adsorber, the soil vapor extraction and treatment system shall be immediately shut down, and the first stage adsorber shall be removed from service. The SVEU shall not be restarted until the second stage adsorber has been relocated to the first stage adsorber position. Likewise, if there are more than 2 adsorbers, each adsorber shall be moved down one position towards the SVEU, and the

final stage adsorber shall be replaced with a new adsorber with fresh activated carbon.

[A.A.C. R18-2-306.A.3]

6. The Permittee shall place activated carbon removed from the system in closed containers prior to removal from the site.

[A.A.C. R18-2-306.A.3]

C. Monitoring Requirements

1. At the request of the Director, the Permittee shall measure the flow at the stack of the carbon adsorber to obtain the total actual flow rate of gases exiting the unit.

[A.A.C. R18-2-306.A.4]

2. The Permittee shall maintain records of the serial number of each GAC canister of activated carbon, the date each is installed, the position in the series (first, second, or third stage position, etc.), and the date removed from service.

[A.A.C. R18-2-306.A.4]

D. Particulate Matter and Opacity

1. Emission Limitations and Standards

- a. The Permittee shall not discharge particulate matter into the atmosphere in any one hour from carbon adsorber in total quantities in excess of the amount calculated by the following equation:

$$E = 4.10P^{0.67}$$

where:

E = the maximum allowable particulate emissions rate in pounds-mass per hour

P = the process weight rate in tons-mass per hour

[A.A.C. R18-2-730.A.1.a]

- b. The opacity of any plume or effluent shall not be greater than 20 percent.

[A.A.C. R 18-2-702.B.1]

- c. If the presence of uncombined water is the only reason for an exceedance of the opacity limit above, the exceedance shall not constitute a violation.

[A.A.C. R18-2-702.C]

2. Permit Shield

Compliance with the Conditions of this Section shall be deemed compliance with A.A.C. R18-2-513, -730.A, -702.B.1 and -702.C.

[A.A.C. R18-2-325]

E. Volatile Organic Compounds

1. Emissions Limitation

The Permittee shall limit VOC emissions to 90 tons per year on a 12-month rolling basis exiting the SVEU.

[A.A.C. R18-2-306.01.A and -331.A.3.a]

[Material Permit Conditions are indicated by underlines and italics]

2. Monitoring Requirements

a. At each location at which the SVEU is operated, the Permittee shall take a grab sample of the inlet and outlet vapor stream of the SVEU device upon startup at each new location, and then once every two (2) weeks for the first six (6) weeks, then monthly for the following six (6) months, and then quarterly thereafter.

[A.A.C. R18-2-306.A.3]

b. The Permittee shall determine from the grab samples taken in accordance with Condition V.E.2.a above, the concentration of VOCs and halogenated compounds at the inlet of the SVEU and the concentration of the VOCs exiting the SVEU. The Permittee shall analyze the samples using EPA Reference Method 8260D or EPA Method TO-15A (Latest Approved Version), or equivalent methods approved by the Director.

[A.A.C. R18-2-306.A.3]

3. Recordkeeping Requirements

a. The Permittee shall calculate and record VOC emissions at the end of each month and on a 12-month rolling basis. Appendix "A" explains how to complete this calculation. Emissions shall be calculated using the gas samples exiting the SVEU in accordance with the following:

(1) The first sampling results shall be used to calculate emissions until the second sampling date;

(2) The second sampling results shall be used to calculate emissions that occur after the second sampling date until the third sampling date; and

(3) The Permittee shall continue the methodology in Conditions V.E.3.a(1) and V.E.3.a(2) above until the SVEU changes location, at which time the sampling sequence starts over. VOC emissions from the previous location must still be accounted for in the 12-month rolling basis.

[A.A.C. R18-2-306.A.4]

b. The following information shall be recorded for each grab sample, in tabular format

- (1) Date of sampling, and type of air pollution control device in use;
- (2) Site elevation (Feet Above Mean Sea Level - AMSL);
- (3) The concentration of VOCs at the inlet of the control device in ppmv;
- (4) The emission rate of VOCs exiting the SVEU in lb/hr; and
- (5) The VOC destruction efficiency for the SVEU.

[A.A.C. R18-2-306.A.4]

4. Reporting Requirements

- a. A written report of the results of the sampling required by Condition V.E.2.a shall be submitted upon request to the Director.
- b. A written report of the results of all the grab samples performed during the compliance term specified in Section VII of Attachment "A" shall be submitted to the Director in accordance with the reporting requirements in Section XV of Attachment "A".

[A.A.C. R18-2-306.A.5]

[A.A.C. R18-2-306.A.5]

VI. MOVE NOTICE REQUIREMENTS

A. Move Notice

[A.A.C. R18-2-513.G]

SVEUs granted coverage under a general permit may be transferred from one location to another provided that the facility of such equipment notifies the Director, and any control officer who has jurisdiction over the geographic area that includes the new location of the transfer prior to the transfer. The location change shall include the following:

1. A description of the permitted equipment to be transferred including permit number and as appropriate the Authorization-to-Operate number for each piece of equipment;
2. A description of the present location;
3. A description of the location to which the equipment is to be transferred, including the availability of all utilities, such as water and electricity, necessary for proper operation for all control equipment;
4. The date on which equipment is to be moved;
5. The date on which operation of the equipment will begin at the new location; and

6. A complete list of all equipment that will be located at the new location.

B. SVEUs Operating Solely in One County

[A.A.C. R18-2-324.A and B]

SVEUs that will operate for the duration of its permit solely in one county that has established a local air pollution control program pursuant to A.R.S. § 49-479 shall obtain a permit from that county. A SVEU with a county permit shall not operate in any other county until it receives a general permit from ADEQ.

DRAFT

**GENERAL AIR QUALITY CONTROL PERMIT
FOR SVEUs**

**ATTACHMENT "C": ADDITIONAL REQUIREMENTS FOR SVEUs OPERATING IN
MARICOPA, PIMA, OR PINAL COUNTIES**

I. REQUIREMENTS FOR SVEUs OPERATING IN MARICOPA COUNTY

The Permittee shall abide by all requirements of Attachment "B" and the following requirements while operating in Maricopa County. If more than one emission limitation or standard is applicable to the same SVEU, the more stringent emission limitation or standard shall apply.

A. Emission Limitations and Standards

1. Odor

No person shall emit gaseous or odorous air contaminants for equipment, operations or premises under his control in such quantities or concentrations as to cause air pollution.

[Maricopa County Rule 320 § 300]

2. Opacity

No person shall discharge into ambient air from any single source of emission any air contaminants, other than uncombined water, in excess of 20 percent opacity for a period aggregating more than three (3) minutes in any 60-minute period.

[Maricopa County Rule 300 § 301]

3. Organic Solvents and Other Organic Materials

No person shall store, discard, or dispose of VOCs or VOC containing material in a way intended to cause or allow the evaporation of VOCs to the atmosphere.

[Maricopa County Rule 330 § 306]

B. Thermal Oxidizer, Catalytic Oxidizer or Carbon Adsorption Requirements

1. Emission Limitations and Standards

a. Particulate Matter (PM/PM₁₀/PM_{2.5})

The Permittee with either a rated heat input capacity or heat input greater than 100 MMBtu/hr shall not discharge, cause, or allow the discharge of particulate matter emissions, caused by combustion of non-gaseous liquid fuels or a blend of liquid fuels with other fuels, in excess of 0.10 pounds/MMBtu.

[Maricopa County Rule 323 § 301]

b. Volatile Organic Compounds (VOCs)

- (1) The Permittee shall limit VOC emissions to 22.5 tons per year on a 12-month rolling basis.
- (2) The Permittee shall not discharge more than 15 pounds (6.8 kg) of VOCs into the atmosphere in any one day from any machine, equipment, device, or other article in which any VOC or any material containing VOCs comes into contact with flame or is evaporated at temperatures exceeding 200 °F (93.3 °C), in the presence of oxygen, unless the entire amount of such discharge has been reduced.
[Maricopa County Rule 330 § 301]
- (3) The Permittee shall reduce VOC emissions to the atmosphere by at least one of the following methods:
 - (a) Incineration, provided that 90 percent or more of the carbon in the VOC compounds entering the incineration device is oxidized to carbon dioxide and overall efficiency (capture plus processing) is at least 85 percent by weight; or
[Maricopa County Rule 330 § 304.1]
 - (b) Adsorption, provided that overall control efficiency (capture plus processing) is at least 85 percent by weight.
[Maricopa County Rule 330 § 304.2]

2. Recordkeeping Requirements

The Permittee shall maintain a daily log detailing VOC emissions emanating from the stack of any SVEU. The daily emissions shall be calculated on the same frequency as the grab sample testing specified in Conditions IV.D.2.a or V.E.2.a above of Attachment “B” using the most recent grab sample data.

[A.A.C. R18-2-306.A.4]

C. Permit Shield

Compliance with the Conditions of this Section shall be deemed compliance with Maricopa County Rules 300 § 301, -304.1, -304.2, -320, -323, and A.A.C. R18-2-306.

[A.A.C. R18-2-325]

II. REQUIREMENTS FOR SVEUs OPERATING IN PINAL COUNTY

The Permittee shall abide by all requirements of Attachment “B” and the following requirements while operating in Pinal County. If more than one emission limitation or standard is applicable to the same SVEU, the more stringent emission limitation or standard shall apply.

A. Emission Limitations and Standards

1. Particulate Matter (PM/PM₁₀/PM_{2.5})

[Pinal County Air Quality Control District Reg. 5-24-1030]

- a. The Permittee shall not discharge particulate matter discharged into the atmosphere in any one hour from any SVEU in total quantities in excess of the amounts calculated by one of the following equations:

- (1) For those having a process weight rate of 60,000 pounds per hour (30 tons per hour) or less, the maximum allowable emissions shall be determined by the following equation:

$$E = 4.10P^{0.67}$$

Where:

E = the maximum allowable particulate emissions rate in pounds-mass per hour.

P = the process weight in tons-mass per hour.

- (2) For those having a process weight rate greater than 60,000 pounds per hour (30 tons per hour), the maximum allowable emissions shall be determined by the following equation:

$$E = 55.0P^{0.11} - 40$$

Where:

E = the maximum allowable particulate emissions rate in pounds-mass per hour.

P = the process weight in tons-mass per hour.

- b. The total process weight employing a similar type process shall be used in determining the maximum allowable emission of particulate matter.

- c. Values calculated from the applicable equations shall be rounded off to two decimal places.

2. The Permittee shall not emit gaseous or odorous materials from any SVEU, operations or premises under its control in such quantities or concentrations as to cause air pollution.

3. Where a stack, vent or other outlet is at such a level that fumes, gas mist, odor, smoke, vapor or any combination thereof constituting air pollution are

discharged to adjoining property, the Pima County Air Quality Control Officer may require the installation of abatement equipment or the alteration of such stack, vent or other outlet by the owner or operator thereof to a degree that will adequately dilute, reduce or eliminate the discharge of air pollution to adjoining property.

4. Any SVEU must capture all particulate matter resulting from operation. Failure to control these emissions in a manner satisfactory to the Pima County Air Quality Control Officer, or which exceed the opacity requirements mentioned above, will result in a non-compliance status even if the particulate matter requirements have been complied with. Fugitive dust resulting from vehicular movement required by normal operation of a SVEU must be controlled as defined below under Fugitive Dust.

[Pinal County Air Quality Control District Reg. 5-24-1032.B]

B. Opacity

1. The opacity of any plume or effluent as determined by Reference Method 9 in 40 CFR 60, Appendix A, shall not be greater than 20 percent in any area that is attainment or unclassifiable for each particulate matter standard.

[Pinal County Air Quality Control District Reg. 2-8-300]

2. **Monitoring Requirements**

Opacity observations of visible emissions shall be conducted in accordance with Reference Method 9 in 40 CFR Part 60, Appendix A.

[Pinal County Air Quality Control District Reg. 4-2-050]

C. Move Notice

[Pinal County Air Quality Control District Reg. 3-9-800.A]

Any SVEU may be transported from one location to another within or across Pinal County boundaries provided the owner or operator of such SVEU notifies the Pima County Air Quality Control Office by certified mail at least ten (10) working days prior to the SVEU being transported to the new location. The notification required under this rule shall include:

1. A description of the SVEU to be transported including the Pinal County permit number or the ADEQ general permit number for such SVEU;
2. A description of the present location;
3. A description of the location to which the SVEU is to be transported, including the availability of all utilities, such as water and electricity, necessary for the proper operation of all control equipment;
4. The date on which the SVEU is to be moved;

5. The date on which operation of the SVEU will begin at the new location; and
6. The duration of operation at the new location.

D. Notification Requirement

The owner or operator of a SVEU with a current ADEQ general permit that moves such SVEU into Pinal County shall notify the Pima County Air Quality Control Office that such the SVEU is being transported to a new location and shall include in such notification a copy of the ADEQ general permit and a copy of any conditions imposed by the ADEQ general permit. The SVEU shall be subject to all regulatory requirements of these rules.

[Pinal County Air Quality Control District Reg. 3-9-800.B]

E. Fugitive Dust

1. Applicability

The purpose of these requirements is to regulate operations which periodically may cause fugitive dust emissions into the atmosphere.

The following definitions shall apply:

[Pinal County Air Quality Control District Reg. 4-2-020]

- a. **MOTOR VEHICLE** - A self-propelled vehicle weighing less than six thousand pounds that is designed for carrying persons or property on a street or highway.
- b. **REASONABLE PRECAUTION** - Measures taken to prevent fugitive dust from becoming airborne which result in the lowest emission limitation by the application of control technology that is reasonably available considering technological and economic feasibility.
- c. **URBAN or SUBURBAN OPEN AREA** - An unsubdivided tract of land surrounding a substantial urban development of a residential, industrial, or commercial nature and which, though near or within the limits of some city or town, may be used for agriculture, be uncultivated, or lie fallow.
- d. **VACANT LOT** - A subdivided residential or commercial lot which contains no buildings or structures of a temporary or permanent nature.

[Pinal County Air Quality Control District Reg. 4-2-030]

2. Emission Limitations and Standards

- a. The Permittee shall not cause, suffer, allow, or permit a building or its appurtenances, subdivision site, driveway, parking area, vacant lot or sales lot, or an urban or suburban open area to be constructed, used, altered, repaired, demolished, cleared, or

leveled, or the earth to be moved or excavated, or fill dirt to be deposited, without taking reasonable precautions to effectively prevent fugitive dust from becoming airborne.

- b. The Permittee shall not cause, suffer, allow, or permit a vacant lot, or an urban or suburban open area, to be driven over or used by motor vehicles, such as but not limited to all-terrain vehicles, trucks, cars, cycles, bikes, or buggies, without taking reasonable precautions to effectively prevent fugitive dust from becoming airborne.
- c. The Permittee shall not disturb or remove soil or natural cover from any area without taking reasonable precautions to effectively prevent fugitive dust from becoming airborne.
- d. The Permittee shall not crush, screen, handle or convey materials or cause, suffer, allow or permit material to be stacked, piled or otherwise stored without taking reasonable precautions to effectively prevent fugitive dust from becoming airborne.

[Pinal County Air Quality Control District Reg. 4-2-040]

F. Permit Shield

Compliance with the Conditions of this Section shall be deemed compliance with Pinal County Air Quality Control District Reg. 2-8-300, 3-9-800.A, -800.B, 4-2-050, 4-2-020, -030, -040, 5-24-1030 and -1032.B.

[A.A.C. R18-2-325]

III. REQUIREMENTS FOR SVEUs OPERATING IN PIMA COUNTY

The Permittee shall abide by all requirements of Attachment "B" and the following requirements while operating in Pima County. If more than one emission limitation or standard is applicable to the same SVEU, the more stringent emission limitation or standard shall apply.

A. Operating Limitation

[P.C.C. § 17.16.010.C]

The Permittee of any SVEU which burns any material, except natural gas, shall keep records of the material used as fuel and all materials that are incinerated.

B. Particulate Matter (PM/PM₁₀/PM_{2.5})

The Permittee shall not discharge into the atmosphere in any one hour from any SVEU in total quantities in excess of the amount calculated by the following equation:

$$E = 3.59Q^{0.62}$$

Where:

E = the maximum allowable particulate emissions rate in pounds-mass per hour.

Q = the heat input in million Btu per hour.

[P.C.C. § 17.16.430.A.1.a]

C. Emission Limitations and Standards

[Pima County Applicable SIP Rule 343 and P.C.C. § 17.16.050]

1. The Permittee shall not cause, suffer, allow or permit operations or activities likely to result in excessive amounts of airborne dust without taking reasonable precautions to prevent excessive amounts of particulate matter from becoming airborne.
2. Opacity of an emission from any non-point source shall not be greater than 40 percent measured in accordance with the Arizona Testing Manual, Reference Method 9.
3. The Permittee shall not cause or permit the airborne diffusion of visible emissions, including fugitive dust, beyond the property boundary line within which the emissions became airborne. The Permittee shall be required to cease temporarily the activity or operation which is causing or contributing to the emissions until reasonably necessary and feasible precautions are taken.
[P.C.C. § 17.16.050.D]
4. Condition III.C.3 above shall not apply when wind speed exceeds 25 miles per hour as estimated by a certified visible emission evaluator using the Beaufort Scale of Wind-Speed Equivalents, or as recorded by a U.S. Weather Bureau Section or a military installation under the U.S. Government. In addition, it should not apply to the generation of airborne particulate matter from undisturbed land.

D. Permit Shield

Compliance with the Conditions of this Section shall be deemed compliance with P.C.C. § 17.16.010.C, -17.16.040, -17.16.050 and SIP Rule 343.

[A.A.C. R18-2-325]

APPENDIX A: EXAMPLE CALCULATION FOR SVEUs

The Permittee is required to calculate VOC emissions at the end of each month on a 12-month rolling basis.

Emissions shall be calculated using the gas samples exiting the SVEU. This includes using the first sampling results to calculate emissions until the second sampling date. Likewise, the second sampling results will be used to calculate the emissions until the third sampling date and so forth. The following example details the required calculations for SVEUs:

Assumptions:

- Initial VOC sample prior to startup = 10 lb/hr
- First VOC sample after initial sample = 9 lb/hr
- Second VOC sample after initial sample = 8 lb/hr
- Sample Period = 30 days for this example
- 24 hours per day operation
- Unit conversion minutes/hr-feet³ = $1.56 \text{ E}^{-7} = 0.000000156$

Step 1: Convert ppmv to pounds (lbs):

$$1.56 \text{ E}^{-7} * (\text{Flow Rate}) * (\text{Concentration}) * (\text{MW}) = \text{Emission Rate in lbs per hour}$$

Where:

-MW = molecular weight = 100.

-Flow Rate in cubic feet per minute.

Step 2: Calculate VOC emissions for the 1st month:

$$\begin{aligned} \text{VOC total pounds for 1}^{\text{st}} \text{ Month (VOC}_1) &= (10 \text{ lb/hr}) * (30 \text{ days}) * (24 \text{ hours/day}) \\ &= 7,200 \text{ pounds of VOCs} = 3.6 \text{ tons} \end{aligned}$$

Step 3: Calculate total VOC emissions after the 2nd month:

$$\begin{aligned} \text{VOC total pounds for 2}^{\text{nd}} \text{ month VOC}_2 &= (9 \text{ lb/hr}) * (30 \text{ days}) * (24 \text{ hours/day}) \\ &= 6,480 \text{ pounds of VOCs} = 3.24 \text{ tons} \end{aligned}$$

Total VOC emissions after 2 months = $\text{VOC}_1 + \text{VOC}_2 = 3.6 + 3.24 = 6.84 \text{ tons}$

Step 4: Calculate total VOC emissions after 3rd month:

$$\begin{aligned} \text{VOC}_3 &= (8 \text{ lb/hr}) * (30 \text{ days}) * (24 \text{ hours/day}) \\ &= 5,760 \text{ pounds of VOCs} = 2.88 \text{ tons} \end{aligned}$$

Total VOC emissions after 3 months = $VOC_1 + VOC_2 + VOC_3 = 3.6 + 3.24 + 2.88 = 9.72$ tons

Step 5: Continue calculating emissions for months 4 through 12 following the same steps described above:

Total VOC emissions after 12 months = $VOC_1 + VOC_2 + VOC_3 \dots VOC_{11} + VOC_{12}$

The 12-month total VOC emissions must not exceed 90 tons per year.

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