

**MINOR FACILITY**

**AIR QUALITY PERMIT APPLICATION GUIDE**

**FORMS & INSTRUCTIONS**

AIR QUALITY DIVISION

707 N. ROBINSON AVE., SUITE 4100

P. O. BOX 1677

OKLAHOMA CITY, OKLAHOMA 73101-1677

**INTRODUCTION**

This package contains instructions and forms for making application for new, relocation, and modification of construction and operating permits for **minor and synthetic minor facilities only**. It has been developed to address a wide range of industry types and emissions units. Thus, some portions may not be applicable to your facility. This Application Guide is designed for “Individual Permit” applications, and not for “[General Permit](http://www.deq.state.ok.us/aqdnew/permitting/genperm.htm) (GP)” applications. Currently, AQD has seven specific GP minor source applications available. Each GP is designed for a particular industry type and should be used whenever possible. There are also two other individual permit application packages for specific minor facilities other than this one. These packages are listed below and they are available from Air Quality Division or can be downloaded at [www.deq.state.ok.us](http://www.deq.state.ok.us):

1. Minor Facility Individual Permit Application Forms:

100-100 – Minor Source Permit Application for a Natural Gas Compressor Station

100-110 – Minor Source Permit Application for a Rock Crushing Facility or a Sand and Gravel Operation

1. Minor Facility General Permit Application Forms:

100-360 – Area Source NESHAP & Small NSPS Facilities General Permit Application

100-340 – Hot Mix Asphalt Plants General Permit Application

100-305 – Oil & Gas Facilities – Minor Source General Permit Application

100-310 – Dry Cleaning Minor Facility General Permit Application

100-320 – Chromium Electroplating and Anodizing Minor Facility General Permit Application

100-330 – Non-Metallic Mineral Processing Minor Facility General Permit Application

100-350 – Printing /Packaging General Permit Application

Information submitted using this package should be adequate to determine that a proposed source will meet applicable air quality rules and standards. Required information will vary according to the type of facility to be constructed or operated. The following specific instructions should be followed to assure that all-necessary information is provided to draft the appropriate permit:

100-105-A – Facility Emission Summary 100-105-F – Nonmetallic Mineral Processing Facility

100-105-B – Stationary IC Engines/Turbines 100-105-G – Asphalt Plant Equipment

100-105-C – Dehydration and Amine Units 100-105-H – Incineration Facility

100-105-D – Storage and Loading for Organic Materials 100-105-I – Painting Operation Facility

100-105-E – Fuel-Burning Equipment

Please read all directions carefully before filling out these forms. Answer all questions by checking the appropriate box or filling in a response. If an item does not apply to you, enter “N/A” (for not applicable) to show that you considered the question. An original signature from a responsible official is required on Form 100-884. Please note that delays in processing your application may occur if an incomplete application is submitted. Please choose all applicable portions for your facility. It is your responsibility to submit a complete application well in advance of anticipated commencement of construction, startup dates, or the effective date of operating permit program requirements to allow sufficient time for proper application review and permit issuance. If you need additional information on completing this Form, or would like to meet with us before submitting your application, please call the AQD office at (405) 702-4100 for assistance.

**BACKGROUND**

Oklahoma operates a dual permitting system under Oklahoma Administrative Code (OAC) 252:100. A *construction permit* is to be obtained prior to the commencement of construction, installation or modification of any source that will increase the amount of air contaminant emissions by more than the de minimis levels given in OAC 252:100-7-2. After construction is completed, application for an *operating permit* must be submitted within 180 days after start up. A *relocation permit* may be obtained for relocation of portable minor facilities from one site to another only in attainment areas (DEQ Form #100-886). Relocation of such a source without a permit will automatically void the operating permit or the grandfather exemptions for that source. Relocation permits are good for two years, and failure to change a source’s location within two years shall subject it to the requirement to obtain a stationary source operating permit. Applicants may request *modification* to existing permits by submission of an application to modify. Modification to a source operation shall subject the facility at which the source operation is located to issuance of an operating permit for the entire facility.

If you are uncertain whether a permit is required, a request for an applicability determination may be submitted to DEQ and a written determination will be made based on the data submitted. An applicability determination can also be performed to determine whether a facility is a major or minor source.

**DEFINITIONS**

***Criteria Pollutant***: Oxides of Nitrogen (NOx), Sulfur Dioxide (SO2), Lead (Pb), Ozone (O3, i.e., regulated as volatile organic hydrocarbon or VOC as a precursor to O3), Particulate Matter less than 10 microns (PM10), Particulate Matter less than 2.5 microns (PM2.5), Carbon Monoxide (CO).

***Minor Facility***: A facility that has the potential to emit less than 100 tons/year of a criteria pollutant, less than 10 tons/year of any single hazardous air pollutant, and less than 25 tons/year total hazardous air pollutants in the aggregate. These facilities are classified as Tier I facilities and follow the simplest type of application process.

***Synthetic Minor Facility***: A facility which has the potential under maximum operating conditions to emit at the Major Source level but which has a permit that restricts actual emissions to the minor facility level. Such restrictions may include any of the following: hours of operation, emission control devices, and throughput. Applications for synthetic minor facility permits are classified as either Tier I or Tier II, depending on several factors.

***Major Source***: A source that has the potential to emit more than 100 tons/year for criteria pollutants, 25 tons/year of hazardous air pollutants, or 10 tons/year of any single hazardous air pollutant. These sources are complex in their potential impact and are subject to the Tier II or Tier III application process.

**TIER DETERMINATION**

DEQ’s “Uniform Permitting” system, under OAC 252:4, categorizes applications as Tier I, II, or III, depending on their complexity and the amount of public interest. The main effect of a Tier classification is the amount of public review given the application. For Air Quality permits, Tier I basically includes minor facilities and most synthetic minor facilities. Tier II covers major sources, and Tier III covers only very large sources such as those requiring PSD review. DEQ Form # 100-815 includes an instruction sheet showing classification of air quality applications. This may be used to make a preliminary determination of the Tier classification. This determination will be verified by AQD staff before permit issuance.

**PERMIT APPLICATION FEES**

Applicants must attach a check or money order (no cash will be accepted) payable to the DEQ Air Quality Division. Fees are subject to change, please refer to OAC 252:100-7-3 for the latest fee schedule. Please reference the facility name (or existing permit or application number) on the check. The emissions level is based on the single criteria pollutant with the highest emissions rate. See DEQ Form #100-815 for fee details.

**ANNUAL EMISSIONS INVENTORY**

An annual Emissions Inventory (sometimes called a Turn Around Document) must be submitted to the Air Quality Division by April 1 of the year following issuance of your construction or operating permit, and provide emissions information for the previous year. [Note: This document should NOT be submitted with your permit application unless requested by the permit writer.] This information is used to calculate the annual operating fee. All calculations and assumptions used to estimate emissions must be verified by proper documentation. All supporting data, including actual production, throughput and measurement records along with engineering calculations and other data utilized in accordance with OAC 252:100-5-2.1(c) & (d) must be maintained at the facility and provided on request. Annual Emissions Inventory information may be found at:

<http://www.deq.state.ok.us/AQDnew/Emissions>.

**Your Application Must Include:**

1. DEQ Form # 100-884 (General Facility Information Form)
2. DEQ Form # 100-810 (Landowner Affidavit)
3. DEQ Form # 100-815 (Application Fee Classification)
4. DEQ Form #100-105-A (Facility Emission Summary)
5. Emissions information for each unit on site (as appropriate, Forms 100-105-B though 100-105-I)
6. Appropriate fees (Payable To DEQ Air Quality Division)
7. Facility Plot Plan & Process Flow Diagram

**Submit 2 Copies Of Completed Application To:**

Oklahoma Dept. Of Environmental Quality

AIR QUALITY DIVISION

707 N. Robinson Ave., Suite 4100

P.O.BOX 1677

Oklahoma City, OK 73101-1677

**ASSISTANCE AVAILABLE:**

DEQ Customer Assistance: 1 - (800) 869-1400

Air Quality Division: (405) 702-4100

Web Page Address: <http://www.deq.state.ok.us>

**DEQ LANDOWNER NOTIFICATION AFFIDAVIT**

Tier I, II, or III permit applicants must provide notice to the landowner(s). The basis for this requirement is Title 27A of the Oklahoma Statutes, Supplement 1996, § 2-14-103(9), as described in OAC 252:4-7-13 (b).

**Please note that you MUST fill out and return this affidavit even if you don’t have to give any landowner notice. This form is not required for Applicability Determination applications.**

|  |  |
| --- | --- |
| A | NOTICE TO THE LANDOWNER(S) IS NOT REQUIRED because: (check one) |
|  | My application does not involve any land. |
|  | My application involves only land owned by me (or applicant business). |
|  | I have a current lease given to accomplish the permitted purpose. |
|  | I have a current easement given to accomplish the permitted purpose. |

## OR

|  |  |
| --- | --- |
| **B** | NOTICE TO THE LANDOWNER(S) IS REQUIRED because the land is owned by someone other than myself or the applicant business AND I HAVE NOTIFIED the following (check one): |
|  | Landowner(s) |  | Lessor or Administrator or Executor of the land |
| METHOD OF DELIVERY (check one): |
|  | Actual notice, for which I have a signed and dated receipt |
|  | Service by Sheriff or private process server, for which I have an affidavit |
|  | Service by certified mail, restricted delivery, for which I have a signed return receipt |
|  | Legal publication, for which I have an affidavit of publication from the newspaper, because the landowners could not be located through due diligence |

|  |
| --- |
| LANDOWNER AFFIDAVIT CERTIFICATION |
| I, as the applicant or an authorized representative of the applicant, hereby certify that I own the real property, have a current lease or easement which is given to accomplish the permitted purpose (per Option A above), or have provided legal notice to the landowner(s) (per Option B above) about the permit application for the facility described below. |
| Company Name |  | Facility Name |  |
| Facility Address or Legal Description. |  |
| Responsible Official (signature) |  | Date Signed |  |
| Responsible Official (typed) |  | Title |  |

If the landowner notice applies to your application (Option B above) you can send the following form to them as your notice:

- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -

NOTICE TO LANDOWNER OF FILING

Dear Landowner: (Name)

(Applicant name) has filed a permit application with the Oklahoma

Department of Environmental Quality for (Facility Name) facility.

This application involves the land owned by you located at:

Address or Legal Description:

Signed: Date:

|  |  |  |  |
| --- | --- | --- | --- |
| **AIR QUALITY PERMIT APPLICATION****GENERAL FACILITY INFORMATION** |  | APPLICATION NUMBER (AQD Use Only) |  |
|  |
| 1 | COMPANY INFORMATION | Name |  |
| Mailing Address |  | City  |  | State |  | Zip |  |
|  |
| 2 | APPLICATION TYPE |  | Applicability Determination |  | Construction Permit |  | Operating Permit |
|  | GP Authorization To Operate |  | GP Authorization To Construct | GP Name: |  |
|  | Renewal |  | Modification |  | Relocation |  | PBR | PBR Type: |  |
| Permit Number(s) (If Applicable)  |  |  |  |
| Est. Date of Construction/Modification Start: |  | Operational Start-up:  |  | Completion: |  |
| Construction Permit Public Review Process: |  | Traditional |  | Enhanced |
|  |
| 3 | IS CONFIDENTIAL INFORMATION INCLUDED? |  | YES |  | NO |
| By including confidential information, Applicant acknowledges that such information may be shared with the U.S. Environmental Protection Agency for purposes consistent with the Federal Clean Air Act, 42 U.S.C. §§ 4201 et. seq. |
|  |
| 4 | TIER CLASSIFICATION |  | Tier I |  | Tier II |  | Tier III |  | N/A – AD only |
| FACILITY TYPE |  | Major |  | Minor |  | Synthetic Minor |
|  |
| 5 | FEES SUBMITTED | $ | Check # |  | Date |  |
|  |
| 6 | TECHNICAL CONTACT | Name |  |
| Phone |  | Fax |  | Email Address |  |
| Company Name |  |
| Street Address |  | City |  | State |  | Zip |  |
|  |
| 7 | FACILITY INFORMATION | Name |  |
| SIC Code(s) |  |  |  | NAICS Code(s) |  |  |  |
| Contact Person |  | Title |  | Phone |  |
| LEGAL DESCRIPTION | Sub Section |  | Section |  | Township  |  | Range |  |
| Physical Address or Driving Directions |  |
| City or Nearest Town |  | Zip |  | County |  |
|  |
| 8 | GEOGRAPHIC COORDINATES | Latitude (to 5 Decimals) |  | Longitude (to 5 Decimals) |  |
| REFERENCE POINT |  | Facility Entrance Point or First Gate of Lease Property (preferred above all other options) |
|  | Center of Facility |  | Unknown |  | Other (Specify): |  |
|  |
| 9 | APPLICATION CERTIFICATION | **This application, including all attachments, has been submitted as required by OAC 252:100.** |
| **I certify that (a) I am the Responsible Official for this company as defined in OAC 252:100-1-3; and (b) based on information and belief formed after reasonable inquiry, the statements and information contained in this application are true, accurate, and complete.** |
| Responsible Official (name) |  | Title |  |
| Responsible Official (signature) |  | Date |  |
| Phone |  | Fax |  | Email Address |  |
| Street Address |  | City |  | State |  | Zip |  |

|  |  |  |  |
| --- | --- | --- | --- |
| **AIR QUALITY DIVISION****CLASSIFICATION OF AQ PERMIT APPLICATIONS****& APPLICATION FEES** | Received Stamp(DEQ Use Only) | Application Number (AQD Use Only) |  |
|  |  |
| Company Name |  |
| Facility Name |  |
| Mailing Address |  | City  |  | State |  | Zip |  |
|  |
| This form is used to document both a preliminary determination of the Tier classification and any associated Application Fee. **Step 1: APPLICATION CLASSIFICATION AND TIER DETERMINATION**DEQ’s “Uniform Permitting” system, under OAC 252:004, categorizes different types of applications as Tier I, II, or III, depending on their complexity and the amount of public interest. The main effect of a Tier classification is the amount of public review given the application. For Air Quality permits, Tier I basically includes minor facilities and most synthetic minor facilities. Tier II covers major sources, and Tier III covers only very large sources such as those requiring PSD review. Additional information to make a preliminary determination of the Tier classification is provided on the next page. This determination will be verified before permit issuance. Note that all Tier II and III applications require public notice of the application in one newspaper local to the site or facility as soon after the filing date as possible. Other public participation requirements, such as notice of draft and proposed permit, and notice of public meeting may also be required. Contact our office for more information on these requirements. |
| TIER CLASSIFICATION |  | Tier I |  | Tier II |  | Tier III |  | N/A – AD only |
| FACILITY TYPE |  | Major |  | Minor |  | Synthetic Minor | Confirmed/Corrected by: (AQD Use Only) |  |
| **Step 2: APPLICATION TYPE & FEE**Application fee may be determined according to the following schedule. The emissions level is based on the single criteria pollutant with the highest emissions rate. Fees are subject to change – please refer to OAC 252:100-7-3 or 252:100-8-1.7 for the latest fee schedule. |
| MAJOR SOURCE | Fee | MINOR OR SYNTHETIC MINOR SOURCE | Fee |
|  | Applicability Determination (100734) | $500 |  | Applicability Determination (100922) | $500 |
|  | GP- Authorization to Construct (100778) | $900 |  | PBR – Construct (100985) | $250 |
|  | GP- Authorization to Operate (100788) | $900 |  | PBR – Operate (100989) | $100 |
|  | Part 70 Construction (100150) | $7,500 |  | GP – Authorization to Construct (100826) | $500 |
|  | Part 70 Construction Modification (100779) | $5,000 |  | GP – Authorization to Operate (100827) | $500 |
|  | Part 70 Operation (100733) | $7,500 |  | Construction (100829) | $2,000 |
|  | Part 70 Minor Modification (100781) | $3,000 |  | Permit Amendment – no emission increase (100830) | $500 |
|  | Part 70 Significant Modification (100786) | $6,000 |  | Operating Permit (100831) | $750 |
|  | Part 70 Renewal (100787) | $7,500 |  | Operating Permit Modification (100833) | $750 |
|  | Part 70 Relocation (100782) | $500 |  | Relocation (100834) | $250 |
| Application Type Confirmed – (AQD Use Only) |  |  |  |  |
| GP or PBR Name(If Applicable): |  | Existing Permit Number(If Applicable) |  |
| **PAYMENT INFORMATION**Please choose one payment type and attach payment – payable to the Department of Environmental Quality (no cash can be accepted). Please reference the facility name (or existing permit or Authorization number) on the check or money order. |
| Payment Type |  | Check  |  | Money order | Amount/ Receipt Confirmed by: (DEQ Use Only) |  |
| Amount: | $ | Check or Money Order Number: |  | Date: |  |

**TIER DETERMINATION INFORMATION**

OAC 252:004-7 categorizes different types of Air Quality applications as Tier I, II, or III, depending on their complexity and the amount of public interest under DEQ’s “Uniform Permitting” system. The Tier classification affects the amount of public review given the application. Applicants may use the following as a checklist for determining Tier classification.

**OAC 252:4-7-32. Air quality applications - Tier I**

**No Public Notice Requirement**

 (1) Relocation permit for a minor facility.

 (2) Modification of an existing FESOP that is based on the operating conditions of a construction permit that was processed under Tier I and completed the web-based public notice requirement and does not differ from those construction permit conditions in any way considered significant. [FESOP Enhanced NSR]

 (3) Extension of expiration date of a minor facility construction permit.

 (4) Modification of any Part 70 source operating permit condition that is based on the operating conditions of a construction permit that was processed under Tier I (with web-based public notice), Tier II, or Tier III and OAC 252:100-8-8 and does not differ from those construction permit conditions in any way considered significant under OAC 252:100-8-7.2(b)(2). [Enhanced NSR]

 (5) Extension of expiration date of a Part 70 source’s construction permit.

 (6) New, modified, and renewed individual authorizations under general permits for which a schedule of compliance is not required by OAC 252:100-8-5(e)(8)(B)(i).

 (7) Burn approvals.

 (8) Administrative amendments of all air quality permits and other authorizations.

**Web-based Public Notice Requirement**

 (1) New minor NSR construction permit for a minor facility.

 (2) Initial operating permit for a new minor facility.

 (3) Modification of a construction permit for a minor facility.

 (4) Modification of an existing minor operating permit that was issued prior to September 15, 2021, and that will now become a FESOP.

 (5) Modification of a minor operating permit that did not undergo the *FESOP Enhanced NSR Process.* [Traditional NSR]

 (6) Construction permit for an existing Part 70 source for any facility change considered to be a minor modification under OAC 252:100-8-7.2(b)(1).

**OAC 252:4-7-33. Air quality applications - Tier II**

 (1) A minor facility seeking a permit for a facility modification that when completed would turn it into a Part 70 source.

 (2) Any permit application for a Part 70 source that would result, on issuance, with the facility being covered by a FESOP (PBR, GP, or individual facility operating permit).

 (3) Construction permit for a new Part 70 source not classified under Tier III.

 (4) Construction permit for an existing Part 70 source for any facility change considered significant under OAC 252:100-8-7.2(b)(2) and which is not classified under Tier III.

 (5) Initial operating permit for a Part 70 source.

 (6) Acid rain permit that is independent of a Part 70 permit application.

 (7) Temporary source permit under OAC 252:100-8-6.2.

 (8) Significant modification, as described in OAC 252:100-8-7.2(b)(2), of a Part 70 operating permit that did not undergo the *Enhanced NSR Process*. [Traditional NSR]

 (9) Modification of a Part 70 operating permit when the conditions proposed for modification differ from the underlying construction permit’s operating conditions in any way considered significant under OAC 252:100-8-7.2(b)(2). [Traditional NSR]

 (10) A Part 70 construction permit modification considered significant under OAC 252:100-8-7.2(b)(2) and which is not classified under Tier III.

 (11) Renewals of operating permits for Part 70 sources.

 (12) New, modified, and renewed general permits.

 (13) Individual authorizations under any general permit for which a schedule of compliance is required by OAC 252:100-8-5(e)(8)(B)(i).

 (14) Plant-wide emission plan approval under OAC 252:100-37-25(b) or OAC 252:100-39-46(j).

**OAC 252:4-7-34. Air quality applications - Tier III**

(a) A construction permit for any new major stationary source listed in this subsection requires a Tier III application. For purposes of this section, "Major stationary source" means:

 (1) Any of the following sources of air pollutants which emits, or has the PTE, 100 TPY or more of any pollutant subject to regulation:

 (A) carbon black plants (furnace process),

 (B) charcoal production plants,

 (C) chemical process plants,

 (D) coal cleaning plants (with thermal dryers),

 (E) coke oven batteries,

 (F) fossil-fuel boilers (or combustion thereof),totaling more than 250 million BTU per hour heat input,

 (G) fossil fuel-fired steam electric plants of more than 250 million BTU per hour heat input,

 (H) fuel conversion plants,

 (I) glass fiber processing plants,

 (J) hydrofluoric, sulfuric or nitric acid plants,

 (K) iron and steel mill plants,

 (L) kraft pulp mills,

 (M) lime plants,

 (N) incinerators, except where used exclusively as air pollution control devices,

 (O) petroleum refineries,

 (P) petroleum storage and transfer units with a total storage capacity exceeding 300,000 barrels,

 (Q) phosphate rock processing plant,

 (R) portland cement plants,

 (S) primary aluminum ore reduction plants,

 (T) primary copper smelters,

 (U) primary lead smelters,

 (V) primary zinc smelters,

 (W) secondary metal production plants,

 (X) sintering plants,

 (Y) sulfur recovery plants, or

 (Z) taconite ore processing plants, and

 (2) Any other source not specified in paragraph (1) of this definition which emits, or has the PTE, 250 TPY or more of any pollutant subject to regulation.

(b) Existing incinerators. An application for any change in emissions or potential to emit, or any change in any permit condition, that would have caused an incinerator to be defined as a major stationary source when originally permitted shall require a Tier III application.

**AIR QUALITY DIVISION**

**APPLICATION FOR RELOCATION OF A PORTABLE MINOR SOURCE**

**Oklahoma Dept. of Environmental Quality**

**Air Quality Division**

**707 N. Robinson Ave., Suite 4100**

 **P.O. Box 1677**

 **Oklahoma City, Oklahoma 73101-1677**

This form must be completed to obtain approval to relocate a portable minor source, in accordance with Oklahoma Statutes Title 27A, Section 2-5-101, as described by OAC 252:100-7-17. Please submit a fee of $100 (check payable to DEQ Air Quality Division) for each source to be relocated, and a completed Landowners Affidavit (DEQ Form 100-810) for the new location.

Note that relocation of a portable minor source without a relocation permit voids the operating permit or grandfather exemption for that source. Relocation of portable sources is limited to minor sources within attainment regions of the state and is valid for only two years. Failure of a source to change its locale within the two year time period shall subject it to the requirement to obtain a stationary source permit.

|  |  |  |  |
| --- | --- | --- | --- |
| 1 | COMPANY INFORMATION | Name |  |
| Headquarters Mailing Address |  |
| City |  | State |  | Zip |  |
| Technical Contact | Name |  |
| Phone |  | Fax |  | Email Address |  |
|  |
| 2 | FACILITY INFORMATION | Plant # |  | Operating Permit No. |  |
| Manufacturer’s Make & Model |  |
| Air Pollution Control Equipment |  |
| Subject to NSPS (40 CFR Part. 60) Subpart? |  | **I** |  | **OOO** |  | None |  | Other: |  |
|  |
| 3 | PRESENT LOCATION | Projected Shut Down Date: |  |
| Previous Relocation Permit No. |  | NAICS Code |  | SIC Code |  |
| Legal Description | Section |  | Township  |  | Range |  |
| Physical Address or Driving Directions |  |
| City or Nearest Town |  | County |  | Zip |  |
|  |
| 4 | NEW LOCATION |
| Projected Start Up Date: |  | Projected Shut Down Date: |  |
| Legal Description | Section |  | Township  |  | Range |  |
| Latitude / Longitude (to 5 decimal places) | Latitude |  | Longitude |  |
| Physical Address or Driving Directions |  |
| City or Nearest Town |  | County |  | Zip |  |
| Describe Any Residence, Park, School, etc. within ¼ mile |  |
|  |
| 5 | FEES SUBMITTED | $ | Check # |  | Date |  |
|  |
| 6 | APPLICATION CERTIFICATION |
| **This application has been submitted as required by OAC 252:100-7-17. I certify, based on information and belief formed after reasonable inquiry, the statements and information in this application are true, accurate, and complete, and that this source is operating in compliance with its current permit and all applicable control rules.** |
| Responsible Official (signature) |  | Date |  |
| Responsible Official (typed) |  | Phone |  | Fax |  |
| Responsible Official Title |  | Email Address |  |
| Street Address |  | City |  | State |  | ZIP |  |

|  |  |
| --- | --- |
| **AIR QUALITY MINOR FACILITY PERMIT APPLICATION****FACILITY SUMMARY** |  |

**FACILITY-WIDE EMISSION SOURCES (UNITS) SUMMARY**

Please list all emission units located at the facility in the table below. The classification of the emission sources’ “category” is based on the corresponding DEQ Form Number on page #1 of this Application Guide. Please complete the “Emission Units” and “Emissions in TPY” in each applicable category before working on the two tables on this page. Please also list emission sources that are not covered by these categories, and provide a unique identifier (e.g., facility numbering system or emissions inventory ID#), an equipment description, the installation date (actual or projected), a summary of the annualized actual emissions of all regulated pollutants, and details on method, source, and calculations for emissions estimates for each unit. In addition, please indicate whether the unit is a subject of the requested permit action (Construction or Operating Permit, or Modification of an existing permit).

|  |
| --- |
| **EMISSION SOURCES (UNITS)** |
| **FORM #** | **CATEGORY** | **TOTAL NUMBER** |
| 100-105-B | Stationary IC Engines/Turbines |  |
| 100-105-C | Dehydration and Amine Units |  |
| 100-105-D | Storage & Loading for Organic Materials |  |
| 100-105-E | Fuel-burning Equipment |  |
| 100-105-F | Nonmetallic Mineral Processing Facility |  |
| 100-105-G | Asphalt Plant Equipment |  |
| 100-105-H | Incineration Facility |  |
| 100-105-I | Painting Operation Facility |  |
|  |  |  |
|  |  |  |

**FACILITY-WIDE EMISSIONS SUMMARY**

# Please provide a summary of the annualized actual emissions of all regulated pollutants from each emission category at the facility. Data submitted for construction permits should be a best estimate. For operating permit applications, the estimated values should be corrected/updated as necessary following construction and subsequent testing. Emissions from de minimis activities may be quantified separately, or may be identified as “< 5 TPY,” for each activity.

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **EMISSION UNITS** | NOx | CO | VOC | SO2 | PM10 | PM2.5 | HAPs |
| CATEGORY (FORM#) | DESCRIPTION | TPY | TPY | TPY | TPY | TPY | TPY | TPY |
| 100-105-B | Stationary IC Engines/Turbines |  |  |  |  |  |  |  |
| 100-105-C | Dehydration and Amine Units |  |  |  |  |  |  |  |
| 100-105-D | Storage & Loading for Organic Materials |  |  |  |  |  |  |  |
| 100-105-E | Fuel-burning Equipment |  |  |  |  |  |  |  |
| 100-105-F | Nonmetallic Mineral Processing Facility |  |  |  |  |  |  |  |
| 100-105-G | Asphalt Plant Equipment |  |  |  |  |  |  |  |
| 100-105-H | Incineration Facility |  |  |  |  |  |  |  |
| 100-105-I | Painting Operation Facility |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |
| Total |  |  |  |  |  |  |  |

|  |  |
| --- | --- |
| **AIR QUALITY MINOR FACILITY** **PERMIT APPLICATION****FACILITY SUMMARY** |  |

**FACILITY OPERATION DESCRIPTION**

Please provide a written description of facility operations along with a process flow diagram. A conceptual block flow diagram is sufficient. Each block represents a piece of equipment, an operation, or a process that is used in the facility.

|  |  |
| --- | --- |
| **AIR QUALITY MINOR FACILITY PERMIT APPLICATION****STATIONARY INTERNAL COMBUSTION ENGINES/TURBINES** |  |

**EMISSION UNITS SUMMARY – ENGINES AND TURBINES**

Please list all stationary internal combustion engines and turbines located at the facility in the table below. For each unit, give a unique identifier (e.g., facility numbering system or emissions inventory ID#), an equipment description, the installation date (actual or projected), and indicate whether the unit is a subject of the requested permit action (Construction or Operating Permit, or Modification of an existing permit.)

|  |  |  |
| --- | --- | --- |
| **EMISSION UNITS** | Installation Date | Unit Subject of this Permit Action? |
| ID # | Description |  | Yes | No |
|  |  |  |  |  |
|  |  |  |  |  |
|  |  |  |  |  |
|  |  |  |  |  |
|  |  |  |  |  |
|  |  |  |  |  |
|  |  |  |  |  |
|  |  |  |  |  |
|  |  |  |  |  |

**EMISSIONS SUMMARY – ENGINES AND TURBINES**

# Please provide a summary of the annualized actual emissions of all regulated pollutants from each engine and turbine at the facility. Emissions from de minimis activities may be quantified separately, or may be identified as “< 5 TPY,” for each activity.

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **EMISSION UNITS** | NOx | CO | VOC | SO2 | PM10 | PM2.5 | HAPs |
| ID # | Description | TPY | TPY | TPY | TPY | TPY | TPY | TPY |
|  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |
| **SUBTOTAL** |  |  |  |  |  |  |  |

|  |  |
| --- | --- |
| **AIR QUALITY MINOR FACILITY PERMIT APPLICATION****STATIONARY INTERNAL COMBUSTION ENGINES/TURBINES** |  |

**EMISSION UNIT DETAILS – ENGINES AND TURBINES**

Please complete a table for each engine and turbine at the facility.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **ENGINE DETAILS** |  | Internal Combustion |  | Turbine |
| Engine Number |  | Engine Serial Number (if available) |  |
| Engine Make |  | Caterpillar |  | Waukesha |  | Cooper |  | White/Superior |  | Ingersol-Rand |
|  |  | Clark |  | Ajax |  | Solar |  | Other (Specify): |  |
| Model |  |
| Current Rated Horsepower |  | Construction Date |  | Manufactured Date |  |
| Type (check all that apply) |  | 2SLB |  | 4SLB |  | 4SRB |  | Normally Aspirated |  | Turbo Charged |
| Control Equipment |  | Catalytic Converter |  | Oxidation Catalyst |  | Other (Specify) |  |
| Control Efficiency (%) |  |
| **OPERATING CONDITIONS** (usually available from the manufacturer or stack tests on similar equipment) |
| Annual hours of operation |  | Default 8760 hours (365 days at 24 hours/day) |  | Other (Specify): |  |
| Fuel usage (scfh) |  | RPM |  |
| Stack Diameter (ft) |  | Stack Height (ft) |  |
| Stack Flow (acfm) |  | Stack Temperature oF |  |
| **EMISSIONS** | NOx | CO | VOC |
| Uncontrolled Emissions | Annual Uncontrolled Operating Hours |  |
| g/hp-hr |  |  |  |
| lb/hr |  |  |  |
| TPY |  |  |  |
| Controlled Emissions | Annual Controlled Operating Hours |  |
| g/hp-hr |  |  |  |
| lb/hr |  |  |  |
| TPY |  |  |  |
| **EMISSIONS DATA SOURCE** |  | Manufacturer’s Data |  | AP-42, Table No.: |  |
|  | Stack Test |  | Other (Specify): |  |

**BLOWDOWN EMISSIONS – ENGINES AND TURBINES**

|  |
| --- |
| **BLOWDOWN EMISSIONS** |
| Maximum Anticipated Events Per Year |  |
| Maximum Gas Volume Discharged Per Event (SCF) |  |
| Total Annual Blowdown Volume (SCF) |  |
| VOC Content (Mole %) |  |
| VOC Emissions (TPY) |  |

|  |  |
| --- | --- |
| **AIR QUALITY MINOR FACILITY PERMIT APPLICATION****STATIONARY INTERNAL COMBUSTION ENGINES/TURBINES** |  |

**FUGITIVE VOC EMISSIONS – ENGINES AND TURBINES**

Oil and gas exploration and production facilities by their nature emit Volatile Organic Compounds (VOCs) due to leaking equipment. These emissions can be estimated using the factors provided in the worksheet below. These factors are based on Environmental Protection Agency (EPA)-evaluated data on equipment leak emissions from the oil and gas production industry gathered by the American Petroleum Institute (API). A gas analysis should be used to determine the VOC percentage of the stream. The fugitive VOC emissions may be considered one emission source (“unit”) when listed in the summary table.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Component** | **Quantity** | **Default Emission Factors****lb/hr/Component** | **VOC Percent** | **VOC Emissions** |
| **lb/hr** | **TPY** |
| Gas/Vapor Valves |  | 0.00092 |  |  |  |
| Gas/Vapor Flanges |  | 0.00086 |  |  |  |
| Gas/Vapor Relief Valves |  | 0.0194 |  |  |  |
| Others |  | 0.0194 |  |  |  |
| Light Liquid Valves |  | 0.0055 | 100% |  |  |
| Light Liquid Flanges |  | 0.0002 | 100% |  |  |
| Light Liquid Pump Seals |  | 0.0287 | 100% |  |  |
| Light Liquid Relief Valves |  | 0.0165 | 100% |  |  |
| Heavy Liquid Valves |  | 0.000018 | 100% |  |  |
| Heavy Liquid Flanges |  | 0.0000009 | 100% |  |  |
| Heavy Liquid Pump Seals |  | 0.000053 | 100% |  |  |
| Total |  |  |  |  |  |

|  |  |
| --- | --- |
| **AIR QUALITY MINOR FACILITY PERMIT APPLICATION****DEHYDRATION AND AMINE UNITS** |  |

**EMISSION UNITS SUMMARY – DEHYDRATION AND AMINE UNITS**

Please list all dehydration and amine units located at the facility in the table below. For each unit, give a unique identifier (e.g. facility numbering system or emissions inventory ID#), an equipment description, the installation date (actual or projected), and indicate whether the unit is a subject of the requested permit action (Construction or Operating Permit, or Modification of an existing permit.)

|  |  |  |
| --- | --- | --- |
| **EMISSION UNITS** | Installation Date | Unit Subject of this Permit Action? |
| ID # | Description |  | Yes | No |
|  |  |  |  |  |
|  |  |  |  |  |
|  |  |  |  |  |
|  |  |  |  |  |
|  |  |  |  |  |
|  |  |  |  |  |
|  |  |  |  |  |
|  |  |  |  |  |
|  |  |  |  |  |

**EMISSIONS SUMMARY – DEHYDRATION AND AMINE UNITS**

# Please provide a summary of the annualized actual emissions of all regulated pollutants from each dehydration and amine emission unit at the facility. Emissions from de minimis activities may be quantified separately, or may be identified as “< 5 TPY,” for each activity.

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **EMISSION UNITS** | NOx | CO | VOC | SO2 | PM10 | PM2.5 | HAPs |
| ID# | DESCRIPTION | TPY | TPY | TPY | TPY | TPY | TPY | TPY |
|  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |
| **SUBTOTAL** |  |  |  |  |  |  |  |

|  |  |
| --- | --- |
| **AIR QUALITY MINOR FACILITY PERMIT APPLICATION****DEHYDRATION AND AMINE UNITS** |  |

**EMISSION UNIT DETAILS – DEHYDRATION UNITS**

Please complete a table for each dehydration unit at the facility

|  |
| --- |
| **DEHYDRATION UNIT DETAILS** |
| Unit ID# |  | Installation Date |  |
| Dehydrator Type |  | Triethylene Glycol |  | Ethylene/Diethylene Glycol |  | Other (Specify): |  |
| Still Vent Control? Select All Applicable Ones |
|  | None |  | Condenser |  | Flash Tank |  | Vent to Firebox |  | Routed to the Inlet |
|  | Other (Specify) |  | Overall Control Efficiency (%) |  |
| **OPERATING CONDITIONS** |
| Maximum Daily Gas Throughput (MMSCFD) |  |
| Maximum Glycol Circulation Rate (GPM) |  | Is This Pump Capacity? |  | Yes |  | No |
| Condenser Discharge Temperature (If Applicable) (oF) |  |
| Annual Controlled Hours of Operation |  | Annual Uncontrolled Hours of Operation |  |
| **EMISSIONS (Attach Gly-Calc Run Results)** |
| Pollutants | Mole% in Inlet Gas | Controlled Emissions | Uncontrolled Emissions |
| lb/hr | TPY | lb/hr | TPY |
| Benzene |  |  |  |  |  |
| Toluene |  |  |  |  |  |
| Ethylbenzene |  |  |  |  |  |
| Xylene |  |  |  |  |  |
| n-Hexane |  |  |  |  |  |
| Other VOC Components |  |  |  |  |  |
| Total |  |  |  |  |  |

**EMISSION UNIT DETAILS – AMINE UNITS**

Please complete a table for each amine unit at the facility

|  |
| --- |
| **AMINE UNIT DETAILS** |
| Unit ID# |  | Installation Date |  |
| Still Vent Control? |  | None |  | Flare |  | Other (Specify) |  |
| Overall Control Efficiency (%) |  |
| **OPERATING CONDITIONS** |
| Maximum Daily Gas Throughput (MMSCFD) |  |
| Maximum Amine Circulation Rate (GPM) |  | Is This Pump Capacity? |  | Yes |  | No |
| Annual Controlled Hours of Operation |  | Annual Uncontrolled Hours of Operation |  |

|  |  |
| --- | --- |
| **AIR QUALITY MINOR FACILITY PERMIT APPLICATION****STORAGE AND LOADING FOR ORGANIC MATERIALS** |  |

**EMISSION UNITS AND EMISSIONS SUMMARY – ORGANIC MATERIALS STORAGE AND LOADING UNITS**

Please list all organic materials storage and loading units located at the facility in the table below. For each unit, give a unique identifier (e.g., facility numbering system or emissions inventory ID#), an equipment description, the installation date (actual or projected), and indicate whether the unit is a subject of the requested permit action (Construction or Operating Permit, or Modification of an existing permit.) In addition, please provide a summary of the annualized actual emissions of all regulated pollutants from each organic materials storage and loading unit at the facility. Emissions from de minimis activities may be quantified separately, or may be identified as “< 5 TPY,” for each activity.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **EMISSION UNITS** | Installation Date | Unit Subject of this Permit Action? | VOC | HAPs |
| ID # | Description |  | Yes | No | TPY | TPY |
|  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |
| **SUBTOTAL** |  |  |

|  |  |
| --- | --- |
| **AIR QUALITY MINOR FACILITY PERMIT APPLICATION****STORAGE AND LOADING FOR ORGANIC MATERIALS** |  |

**EMISSION UNIT DETAILS – STORAGE TANKS**

Fill out a complete table for each tank with capacity of 400 gallons or more.

|  |
| --- |
| **STORAGE TANKS** |
| Tank ID # |  | Installation Date |  | Manufactured Date |  |
| Tank Height / Length (ft) |  | Tank Diameter (ft) |  | Tank Color |  |
| Tank Capacity (gallons) |  | Maximum Throughput (gallons/year) |  |
| Design Type |  | Fixed Cone Roof |  | Floating Internal Roof |  | Floating External Roof |  | Others(Specify): |  |
| Type of Liquid Stored |  | Condensate\* |  | Methanol |  | Crude Oils |  | Other (Specify): |  |
| Vapor Pressure (psia) |  | Molecular Weight |  | Submerged Fill? |  | Yes |  | No |
| Subject to NSPS 40 CFR 60? |  | Subpart K |  | Subpart Ka |  | Subpart Kb |  | None |
| Description of Venting Valve System |  |
| Description of Vapor Control System if Other Than Submerged Fill Pipe |  |
| VOC Emissions by TANKS Program (TPY)(Attach TANKS Program Output) |  |
| Flash Emissions (TPY)(Attach Vazquez-Beggs Calculation Sheets or Process Simulator Runs.) |  |
| List Vazquez-Beggs Parameters and Justification Here if Defaults Were Not Used |  |
| **STORAGE TANKS** |
| Tank ID # |  | Installation Date |  | Manufactured Date |  |
| Tank Height / Length (ft) |  | Tank Diameter (ft) |  |
| Tank Capacity (gallons) |  | Tank Color |  |
| Maximum Throughput (gallons/year) |  |
| Design Type |  | Fixed Cone Roof |  | Floating Internal Roof |  | Floating External Roof |  | Others(Specify): |  |
| Type of Liquid Stored |  | Condensate\* |  | Methanol |  | Crude Oils |  | Other (Specify): |  |
| Vapor Pressure (psia) |  | Molecular Weight |  | Submerged Fill? |  | Yes |  | No |
| Subject to NSPS 40 CFR 60? |  | Subpart K |  | Subpart Ka |  | Subpart Kb |  | None |
| Description of Venting Valve System |  |
| Description of Vapor Control System if Other Than Submerged Fill Pipe |  |
| VOC Emissions by TANKS Program (TPY)(Attach TANKS Program Output) |  |
| Flash Emissions (TPY)(Attach Vazquez-Beggs Calculation Sheets or Process Simulator Runs.) |  |
| List Vazquez-Beggs Parameters and Justification Here if Defaults Were Not Used |  |

\*Note: “Slop Oil” tanks are assumed to be condensate

|  |  |
| --- | --- |
| **AIR QUALITY MINOR FACILITY PERMIT APPLICATION****STORAGE AND LOADING FOR ORGANIC MATERIALS** |  |

**EMISSION UNIT DETAILS – ORGANIC MATERIALS LOADING FACILITY**

Fill out a complete table for each organic materials loading facility.

|  |
| --- |
| **LOADING FACILITY** |
| Unit ID # |  | Installation Date |  |
| Type of Facilities |  | Sources to be Loaded from Facility |  |
| Loading Rate (gallons/year) |  | Saturation Factor |  |
| Control Type |  | Control Efficiency |  |

|  |  |
| --- | --- |
| **AIR QUALITY MINOR FACILITY PERMIT APPLICATION****FUEL-BURNING EQUIPMENT** |  |

**EMISSION UNITS SUMMARY – FUEL-BURNING EQUIPMENT**

Please list all fuel-burning equipment emission units located at the facility in the table below. For each unit, give a unique identifier (e.g., facility numbering system or emissions inventory ID#), an equipment description, the installation date (actual or projected), and indicate whether the unit is a subject of the requested permit action (Construction or Operating Permit, or Modification of an existing permit.)

|  |  |  |
| --- | --- | --- |
| **EMISSION UNITS** | Installation Date | Unit Subject of this Permit Action? |
| ID # | Description |  | Yes | No |
|  |  |  |  |  |
|  |  |  |  |  |
|  |  |  |  |  |
|  |  |  |  |  |
|  |  |  |  |  |
|  |  |  |  |  |
|  |  |  |  |  |
|  |  |  |  |  |
|  |  |  |  |  |

**EMISSIONS SUMMARY – FUEL-BURNING EQUIPMENT**

# Please provide a summary of the annualized actual emissions of all regulated pollutants from each fuel- burning equipment emission unit at the facility. Emissions from de minimis activities may be quantified separately, or may be identified as “< 5 TPY,” for each activity.

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **EMISSION UNITS** | NOx | CO | VOC | SO2 | PM10 | PM2.5 | HAPs |
| ID# | DESCRIPTION | TPY | TPY | TPY | TPY | TPY | TPY | TPY |
|  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |
| **SUBTOTAL** |  |  |  |  |  |  |  |

|  |  |
| --- | --- |
| **AIR QUALITY MINOR FACILITY PERMIT APPLICATION****FUEL-BURNING EQUIPMENT** |  |

**EMISSION UNIT DETAILS – FUEL-BURNING EQUIPMENT**

Please complete this table for each small fuel-burning equipment emission unit, such as glycol reboilers, amine reboilers, fuel gas heaters, fuel oil heaters, and flares.

|  |
| --- |
| **EQUIPMENT DETAILS** |
| Unit ID # |  | Unit Description |  | Serial # (If Available) |  |
| Maximum Heat Input (MMBTUH) |  | Installation Date |  |
| Fuel Type |  | Gas |  | Liquid(Attach Oil Analysis) |  | Solid(Ash Content\_\_\_\_\_\_\_\_\_\_\_\_) |
| **OPERATING CONDITIONS** |
| Annual Hours of Operation |  | Continuous (8760 hrs/yr) |  | Other (Specify): |  |
| Type of Control (If Any) |  | Control Efficiency (%) |  |
| Fuel Usage |  | scfh |  |  | gallon/hr |  |  | lb/hr |  |
| Stack Diameter (ft) |  | Stack Height (ft) |  |
| Stack Flow (acfm) |  | Stack Temperature (oF) |  |
| **EMISSIONS** | **NOx** | **CO** | **VOC** |
| lb/MMBTU |  |  |  |
| lb/hr |  |  |  |
| TPY |  |  |  |
| EMISSION DATA SOURCE |
|  | Manufacturer’s Data |  | AP-42 |  | Stack Test (Attach Testing Report) |
| Other (Specify): |  |

|  |  |
| --- | --- |
| **AIR QUALITY MINOR FACILITY PERMIT APPLICATION****NONMETALLIC MINERAL PROCESSING FACILITY (NMPF)** |  |

**EMISSION UNITS SUMMARY – NONMETALLIC MINERAL PROCESSING FACILITIES**

Please provide the following information for all nonmetallic mineral processing emission units located at the facility in the table below. For each unit, give a unique identifier (e.g., facility numbering system or emissions inventory ID#), a description (e.g., crusher, screen, etc.), number of hours per year operated, the date the equipment was manufactured or modified, the installation date (actual or projected), the type and efficiency of any control equipment, whether that equipment is subject to an NSPS or NESHAP (Enter “OOO,” “IIII,” “None,” or specify the subpart, e.g., Kb), and indicate whether the unit is subject to the requested permit action (Check "yes" on all emission units for a permit for a new facility, or just those specific units being added, or modified, at an existing facility).

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Emission Unit ID#** | **Description** | **Maximum Hours of Operation (hrs/yr)** | **Manufacture or Modification Date** | **Install Date** | **Control Equipment (if any)** | **Unit Subject to NSPS OOO or IIII ?****(Specify)** | **Unit Subject of the Permit Action?** |
| **Type** | **Efficiency (%Wt)** | **Yes** | **No** |
|  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |

# EMISSIONS SUMMARY – NONMETALLIC MINERAL PROCESSING FACILITIES

# Please provide a summary of the annualized potential emissions of all regulated pollutants from each emission source (i.e., crusher/grinder, screen, storage tank, and other equipment) at the facility.

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **EMISSION UNITS** | NOx | CO | VOC | SO2 | PM10 | PM2.5 | HAPs |
| ID# | DESCRIPTION | TPY | TPY | TPY | TPY | TPY | TPY | TPY |
|  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |
| Subtotal |  |  |  |  |  |  |  |

|  |  |
| --- | --- |
| **AIR QUALITY MINOR FACILITY PERMIT APPLICATION****NONMETALLIC MINERAL PROCESSING FACILITY (NMPF)** |  |

**EMISSION UNIT DETAILS – NONMETALLIC MINERAL PROCESSING FACILITIES**

Provide the following information for each piece of equipment that is subject of the requested permit action. Indicate crusher type according to product size, as used in AP-42, (1/95), Section 11.19.2: primary (3 to 12 inches), secondary (1 to 4 inches), or tertiary (3/16th to 1 inch). Likewise, indicate for each screen whether it serves as a fines screen or “other.” Provide the requested information for each transfer point, including truck unloading, if applicable.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **EMISSION POINTS** | **Process Rate** | **Emissions Factor** | **Control Equipment (if any)** | **Controlled Emissions** |
| **CRUSHERS/GRINDERS** |
| **ID #** | **Type** | **TPH** | **TPY** | **lb/ton** | **Type** | **Efficiency (%/100)** | **Lb/hr** | **TPY** |
|  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |
| **SCREENS** | **Process Rate** | **Emissions Factor** | **Control Equipment (if any)** | **Controlled Emissions** |
| **ID #** | **Type** | **TPH** | **TPY** | **lb/ton** | **Type** | **Efficiency (%/100)** | **Lb/hr** | **TPY** |
|  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |
| **MATERIAL TRANSFER POINTS** | **Process Rate** | **Emissions Factor** | **Control Equipment (if any)** | **Controlled Emissions** |
| **From (ID#)** | **To (ID#)** | **TPH** | **TPY** | **lb/ton** | **Type** | **Efficiency (%/100)** | **Lb/hr** | **TPY** |
|  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |
| **OTHER EQUIPMENT** | **Process Rate** | **Emissions Factor** | **Control Equipment (if any)** | **Controlled Emissions** |
| **ID #** | **Type** | **TPH** | **TPY** | **lb/ton** | **Type** | **Efficiency (%/100)** | **Lb/hr** | **TPY** |
|  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |
| **EMISSIONS DATA SOURCE** | AP-42 (Revision and Table No.): |  |
| Other (Specify): |  |

|  |  |
| --- | --- |
| **AIR QUALITY MINOR FACILITY PERMIT APPLICATION****NONMETALLIC MINERAL PROCESSING FACILITY (NMPF)** |  |

**FUGITIVE PM10 EMISSIONS – NONMETALLIC MINERAL PROCESSING FACILITIES**

Fugitive PM10 emissions may be considered one emission source (“unit”) when listed in the emissions summary table.

|  |
| --- |
| **Information on Fugitive Emissions** |
| **Haul Road Information** |
| Length of Haul Road, round trip (mile) |  | Particle Size Multiplier, k (lb/VMT) | Default = 2.6 (for PM10) |
| Unloaded Truck Weight (tons) |  | Silt Content of Road Materials, s (%) |  |
| Loaded Truck Weight (tons) |  | Mean Vehicle Weight, W (tons) |  |
| Number of Round Trips per Year |  | Surface Material Moisture Content, M (%) |  |
| Hours of Operations per Year,H (hrs/yr) |  | Empirical Constants (for PM10) | a = 0.8, b = 0.4, c = 0.3 |
| Vehicle Mile Travel (VMT) per Year, L |  | Emission Factor, EF (lb/VMT) = k (s/12)a (W/3)b(M/0.2)c |  |
| Control Options: Wet Suppression/Chemical Additives | Control Efficiency Allowed (%): 25%/50%/75% |  |
| **Total Haul Road Emission, TPY = (EF)\*L/2000** |  |
| **Batch/Continuous Drop Operations (to Stockpiles) Information** | **Storage Piles Information** |
| Process Weight Rate, R (TPH) |  | Area of Each Storage Pile (acres)[Default = 0.35 (for PM10)] |  |
| Particle Size Multiplier, k (dimensionless) |  | Number of Stockpiles |  |
| Mean Wind Speed, U (miles/hr) |  | Total Storage Pile Area, P (acres) |  |
| Surface Material Moisture Content, M (%) |  | Number of Active Days/Year, A = |  |
| Emission Factor, EF (lb/ton) =k (0.0032) (U/5)1.3/(M/2)1.4 |  | Number of Inactive Days/Year, I = |  |
| **Total Batch/Continuous Operations Emission (TPY) = EF\*R\*H/2000** |  | **Total Stockpiles Emission (TPY) = (6.3\*P\*A + 1.7\*P\*I)/2000** |  |

|  |  |
| --- | --- |
| **AIR QUALITY MINOR FACILITY PERMIT APPLICATION****ASPHALT PLANT EQUIPMENT** |  |

**EMISSION UNITS SUMMARY – ASPHALT PLANT EQUIPMENT**

Please list all Asphalt Plant emission units located at the facility in the table below. For each unit, give a unique identifier (e.g., facility numbering system or emissions inventory ID#), a description (e.g., crusher, screen, etc.), number of hours per year operated, the date the equipment was manufactured or modified, the installation date (actual or projected), the type and efficiency of any control equipment, whether that equipment is subject to NSPS or NESHAP (Enter “I”, “Kb”, “Other”, or “None”), and indicate whether the unit is subject to the requested permit action (Check "yes" on all emission units for a permit for a new facility, or just those specific units being added, or modified, at an existing facility). In addition, list all de minimis activities (OAC 252:100, Appendix H).

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Emission Unit ID# | Description | Maximum Hours of Operation **(hrs/yr)** | Manufacture or Modification Date MM/DD/YY | Install DateMM/DD/YY | Control Equipment(if any) | Unit Subject to NSPS I or Kb?**(Specify)** | Unit Subject of the Permit Action? |
| Type | Efficiency (%Wt) | Yes | No |
|  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |

# EMISSIONS SUMMARY – ASPHALT PLANT EQUIPMENT

# Please provide a summary of the annualized actual emissions of all regulated pollutants from each emission source (i.e., crusher/grinder, screen, storage tank, and other equipment) at the facility. Emissions from de minimis activities may be quantified separately, or may be identified as “< 5 TPY,” for each activity.

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **EMISSION UNITS** | NOx | CO | VOC | SO2 | PM10 | PM2.5 | HAPs |
| ID# | DESCRIPTION | TPY | TPY | TPY | TPY | TPY | TPY | TPY |
|  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |
| Subtotal |  |  |  |  |  |  |  |

|  |  |
| --- | --- |
| **AIR QUALITY MINOR FACILITY PERMIT APPLICATION****ASPHALT PLANT EQUIPMENT** |  |

**EMISSION UNIT DETAILS – ASPHALT PLANT EQUIPMENT**

Provide the following information for each piece of asphalt plant equipment that is subject of the requested permit action. Indicate crusher type according to product size, as used in AP-42, (1/95), Section 11.19.2: primary (3 to 12 inches), secondary (1 to 4 inches), or tertiary (3/16th to 1 inch). Likewise, indicate for each screen whether it serves as a fines screen or “other.” Provide the requested information for each transfer point, including truck unloading, if applicable.

|  |
| --- |
| **Information on Rotary Drum Dryer and Hot Oil Heater** |
| Plant Design |  | Drum Mix |  | Batch Mix |
| Plant Type |  | Stationary |  | Portable |
| Plant Make |  | CMI |  | Astec |  | Other (Specify) |  |
| Model |  | Plant Manufacture Date: |  |
| Plant Number |  | Plant Serial Number (if available) |  |
| Plant Capacity: |  | Hourly Maximum (TPH) |  | Yearly Maximum (TPY) |
| Control Equipment |  | Filter Baghouse |  | Wet Scrubber |
|  |  | Other (Specify:) |  |
| **OPERATING CONDITIONS** (usually available from the manufacturer or stack tests on similar equipment) |
| Annual hours of operation |  | Default 8760 hours(365 days at 24 hours/day) |  | Other (Specify): |  |
| Rotary Drum Dryer |  | Hot Oil Heater |  |
| Fuel Type |  | Fuel Type |  |
| Fuel usage (scfh) |  | Fuel usage (scfh) |  |
| Fuel Sulfur Content(% by weight) |  | Fuel Sulfur Content(% by weight) |  |
| Burner Size (MMBtu/hr) |  | Burner Size (MMBtu/hr) |  |
| Stack Diameter (ft) |  | Stack Diameter (ft) |  |
| Stack Flow (acfm) |  | Stack Flow (acfm) |  |
| **EMISSIONS** | NOx | CO | VOC |
| g/hp-hr |  |  |  |
| lb/hr |  |  |  |
| TPY |  |  |  |
| **EMISSIONS DATA SOURCE** |  | Manufacturer’s Data |  | AP-42 (1/95), Table No: |  |
|  |  | Stack Test |  | Other (Specify): |  |

|  |  |
| --- | --- |
| **AIR QUALITY MINOR FACILITY PERMIT APPLICATION****ASPHALT PLANT EQUIPMENT** |  |

**FUGITIVE PM10 EMISSIONS – ASPHALT PLANT EQUIPMENT**

Fugitive PM10 emissions may be considered one emission source (“unit”) when listed in the emissions summary table.

|  |
| --- |
| **Information on Fugitive Emissions** |
| Haul Road Information |  |  |  |
| Length of Haul Road, round trip (mile) |  | Particle Size Multiplier, k (lb/VMT) | Default = 2.6 (for PM10) |
| Unloaded Truck Weight (tons) |  | Silt Content of Road Materials, s (%) |  |
| Loaded Truck Weight (tons) |  | Mean Vehicle Weight, W (tons) |  |
| Number of Round Trips per Year |  | Surface Material Moisture Content, M (%) |  |
| Hours of Operations per Year,H (hrs/yr) |  | Empirical Constants (for PM10) | a = 0.8, b = 0.4, c = 0.3 |
| Vehicle Mile Travel (VMT) per Year, L |  | Emission Factor, EF (lb/VMT)  = k (s/12)a (W/3)b(M/0.2)c |  |
| Control Options: Wet Suppression/Chemical Additives | Control Efficiency Allowed (%): 25%/50%/75% |  |
| **Total Haul Road Emission, TPY = (EF)\*L/2000** |
|  |  |
| Batch/Continuous Drop Operations (to Stockpiles) Information |  | Storage Piles Information |  |
| Process Weight Rate, R (TPH) |  |  |  |
| Particle Size Multiplier, k (dimensionless) |  | Area of Each Storage Pile (acres) | Default = 0.35 (for PM10) |
| Mean Wind Speed, U (miles/hr) |  | Number of Stockpiles |  |
| Surface Material Moisture Content, M (%) |  | Total Storage Pile Area, P (acres) |  |
| Emission Factor, EF (lb/ton) =k (0.0032) (U/5)1.3/(M/2)1.4 |  | Number of Active Days/Year, A =Number of Inactive Days/Year, I = |  |
| **Total Batch/Continuous Operations Emission (TPY) = EF\*R\*H/2000** |  | **Total Stockpiles Emission (TPY) = (6.3\*P\*A + 1.7\*P\*I)/2000** |  |

|  |  |
| --- | --- |
| **AIR QUALITY MINOR FACILITY PERMIT APPLICATION****INCINERATION FACILITY** |  |

**EMISSION UNITS SUMMARY – INCINERATION FACILITIES**

Please list all incineration facility emission units located at the facility in the table below. For each unit, give a unique identifier (e.g., facility numbering system or emissions inventory ID#), an equipment description, the installation date (actual or projected), and indicate whether the unit is a subject of the requested permit action (Construction or Operating Permit, or Modification of an existing permit.)

|  |  |  |
| --- | --- | --- |
| **EMISSION UNITS** | Installation Date | Unit Subject of this Permit Action? |
| ID # | Description |  | Yes | No |
|  |  |  |  |  |
|  |  |  |  |  |
|  |  |  |  |  |
|  |  |  |  |  |
|  |  |  |  |  |
|  |  |  |  |  |
|  |  |  |  |  |
|  |  |  |  |  |
|  |  |  |  |  |

**EMISSIONS SUMMARY – INCINERATION FACILITIES**

# Please provide a summary of the annualized actual emissions of all regulated pollutants from each incineration facility emission unit at the facility. Emissions from de minimis activities may be quantified separately, or may be identified as “< 5 TPY,” for each activity.

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **EMISSION UNITS** | NOx | CO | VOC | SO2 | PM10 | PM2.5 | HAPs |
| ID# | DESCRIPTION | TPY | TPY | TPY | TPY | TPY | TPY | TPY |
|  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |
| **SUBTOTAL** |  |  |  |  |  |  |  |

|  |  |
| --- | --- |
| **AIR QUALITY MINOR FACILITY PERMIT APPLICATION****INCINERATION FACILITY** |  |

**EMISSION UNIT DETAILS – INCINERATION FACILITIES**

Fill out a complete table for each incineration facility emission unit.

|  |
| --- |
| **INCINERATOR EQUIPMENT DETAILS** |
| Unit ID # |  | Type of Incinerator |  | Make/Model |  |
| Rated Capacity (lb/hr) |  | Installation Date |  |
| Fuel Type |  | Fuel Usage(cfm, gal/hr, etc.) |  | Total Heat Release (BTU/hr/cf) |  |
| **OPERATING CONDITIONS** |
| Annual Hours of Operation |  | Continuous (8760 hrs/yr) |  | Other (Specify): |  |
| Type of Control (If Any) |  | Control Efficiency (%) |  |
| Charging Method Description |  |
| Waste Description(Source and Type of Waste) |  |
| Amount of Waste per Day |  |
| Method of Determining Waste Amount per Day  |  |
| Stack Diameter (ft) |  | Stack Height (ft) |  |
| Stack Flow (acfm) |  | Stack Temperature (oF) |  |
| **EMISSIONS** | **NOx** | **CO** | **VOC** | **SO2** | **PM10** | **PM2.5** | **HAPs** |
| lb/MMBTU |  |  |  |  |  |  |  |
| lb/hr |  |  |  |  |  |  |  |
| TPY |  |  |  |  |  |  |  |
| **EMISSION DATA SOURCE** |
|  | Manufacturer’s Data |  | AP-42 |  | Stack Test (Attach Testing Report) |
| Other (Specify): |  |

|  |  |
| --- | --- |
| **AIR QUALITY MINOR FACILITY PERMIT APPLICATION****PAINTING OPERATION FACILITY** |  |

Provide the following information for each paint booth or other painting operation emission unit that is subject of the requested permit action.

**Paint Booth Dimensions**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Paint Booth ID Number** | **Dimensions (Feet)** | **Spray Gun Type** | **Transfer Efficiency %** | **Control Efficiency %** | **PM Arrestor Filter Size** |
| **Length** | **Width** | **Height** |
|  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |

**Paint and Solvent Usage**

|  |  |  |  |
| --- | --- | --- | --- |
| **Name of Paints and Solvents****& Product Code** | **Usage (Gallons)** | **Density****lb/gal** | **VOC content****lb/gal** |
| **Annual****Usage** | **Emission****Limit Basis** |
|  |  |  |  |  |
|  |  |  |  |  |
|  |  |  |  |  |
|  |  |  |  |  |

Please provide a logical basis for the VOC and PM emission estimation. The type of the spraying gun must be determined and the paint transfer efficiency shall be provided. The emission control methods for VOC and PM and their control efficiencies shall be provided. The operation mode and operation hours for the painting booth shall also be provided. A copy of the paint manufacturers’ MSDS must be provided. The HAP emission is also required to be submitted.

**Total VOC & PM Emissions from Painting Operation**

|  |  |  |
| --- | --- | --- |
| Name of Paints | **VOC** | **PM** |
| **lb/hr** | **TPY** | **lb/hr** | **TPY** |
|  |  |  |  |  |
|  |  |  |  |  |
|  |  |  |  |  |
| **Total** |  |  |  |  |

The hazardous air pollutants (HAP) must be identified and their emissions from the painting operation are also required to be estimated.

## Emissions of HAPs from Painting Operation

|  |  |  |
| --- | --- | --- |
| **Chemical Constituent** | CAS # | **Emissions** |
| **TPY** |
|  |  |  |
|  |  |  |
|  |  |  |
| **Total** |  |  |