APPLICABILITY DETERMINATION APPLICATION GUIDE

FORMS & INSTRUCTIONS

AIR QUALITY DIVISION
707 N. ROBINSON AVE., SUITE 4100
P.O. BOX 1677
OKLAHOMA CITY, OKLAHOMA 73101-1677

INTRODUCTION

If you are uncertain whether an Air Quality permit is required, or need a formal determination about whether a particular rule or regulation affects your facility, the forms in this guide may be used to submit a request for an Applicability Determination 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 Part 70 (major) source or a minor facility. The definitions of "de minimis facility," "permit-exempt facility," and "minor facility" in OAC 252:100-7-1.1, "Part 70 source" in 252:100-1-3, and "major source" in 252:100-8-2, give the criteria for each type of facility classification.

To determine if a facility is required to obtain a permit, preparation of an application begins with the following items:

- a process description
- calculation of potential emissions
- calculation of actual emissions for a new or existing facility
- federal rule applicability review (New Source Performance Standards (NSPS 40 CFR Part 60) and National Emission Standards for Hazardous Air Pollutants (NESHAP 40 CFR Part 63))

Actual emissions for an existing facility should be based on the last calendar year emissions or pro-rated for the most current year if a full calendar year is not available. New facilities should estimate actual emissions on expected production rates and/or operating hours. To qualify as a permit exempt facility, actual emissions must be below 40 TPY of any regulated pollutant.

The process description should be brief but include all pollutant-emitting activities, including emergency engines and gas-fired equipment. The flow of materials within the facility should be described and the maximum anticipated process weight rates shown at each process operation. A diagram showing flows should be included. For many types of units, the manufacture dates and installation dates are also necessary.

Calculation of potential emissions should be done using the rated capacity of each emission unit (normally supplied by the manufacturer or vendor), published emissions factors or calculation methodologies, and assuming year-round (8,760 hours per year) operation unless the facility is inherently seasonal (e.g., grain elevators) or has an applicable emission limitation in state rules or federal regulations. The effect of emission control devices on emissions is not counted unless the emissions control device is inherent in the operation. For example, a baghouse on a cement batch plant is inherent,

since the plant cannot be operated without the baghouse, but a baghouse on an asphalt concrete plant is not inherent.

For actual emission estimates, control equipment and actual operating conditions can be considered.

Some sample calculations are included at the end of this guide.

Once the process description and emissions calculations are prepared, they may be compared to the definitions of "de minimis facility" and "permit exempt facility" on Page 3 of this guide. For an existing facility, "actual emissions" may also be used in the evaluation. If the operation in question clearly does not meet these definitions, you should abandon the Applicability Determination and proceed directly to a permit application.

The necessary information for an Applicability Determination is often the same for various emission unit types as is required for a minor source Air Quality permit. The following forms and instruction, taken from the Minor Source Permit Application Guide, are often helpful both to the applicant and to the agency, and may be substituted for the corresponding form in this Applicability Determination.

FORM #	CATEGORY
100-105-B	Stationary IC Engines/Turbines
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

Many state and federal standards address "new" and "existing" equipment differently, and each regulation has its own individual cut-off date. For example, stationary diesel engines which were manufactured after 2005 are subject to New Source Performance Standards (NSPS) Subpart IIII, and installation of a unit subject to NSPS requires construction and operating permits. However, if the unit was manufactured prior to 2005, it would not be subject to that regulation. The interplay of various state and federal standards is complicated. In order to make an accurate determination, complete information must be provided in the application.

Please read all directions carefully before commencing. 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. If you need additional information on completing this process, or would like to meet with us before submitting your application, please call the AQD office at (405) 702-4100 for assistance.

GLOSSARY

Criteria Pollutant: Oxides of Nitrogen (NOx), Sulfur Dioxide (SO_2), Lead (Pb), Ozone (O_3, i.e., regulated as volatile organic hydrocarbon or VOC as a precursor to O_3), Particulate Matter less than 10 microns (PM_{10}), Particulate Matter less than 2.5 microns ($PM_{2.5}$), Carbon Monoxide (CO).

Minor Source: a source 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.

Synthetic Minor Source: a source 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 source level. Such restrictions may include any of the following: hours of operation, emission control devices, and throughput.

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.

Potential to emit: means the maximum capacity of a source to emit a pollutant under its physical and operational design. Any physical or operational limitation on the capacity of the source to emit a pollutant, including air pollution control equipment and restrictions on hours of operation, or on the type or amount of material combusted, stored or processed, shall be treated as part of its design if the limitation or the effect it would have on emissions is enforceable. Except for a directly applicable emission limitation in state rules or federal regulations, such enforceable limitations are provided by a permit. Therefore, they do not exist until a permit is issued. Secondary emissions do not count in determining the potential to emit of a source. One example of secondary emissions is any emissions associated with construction of the facility/source.

De minimis facility: a facility that meets the requirements contained in paragraphs (A) and (B) of this definition.

(A) All the air pollutant emitting activities at the facility are on the de minimis list contained in Appendix H or the facility meets all of the following de minimis criteria:

(i) The facility has actual emissions of 5 tpy or less of each regulated air pollutant, except that fraction of particulate matter that exhibits an aerodynamic particulate diameter of more than 10 micrometers (μm).

(ii) The facility is not a "major source" as defined in OAC 252:100-8-2.

(iii) The facility is not a "major stationary source" as defined in OAC 252:100-8-31 for facilities in attainment areas.

(iv) The facility is not a "major stationary source" as defined in OAC 252:100-8-51 for facilities in nonattainment areas.

(v) The facility is not operated in conjunction with another facility or source that is subject to air quality permitting.

(vi) The facility has not opted to obtain or retain an Air Quality Division permit.

(B) The facility is not subject to the Federal NSPS (40 CFR Part 60) or the Federal NESHAP (40 CFR Parts 61 and 63).

Permit exempt facility: means a facility that:

(A) has actual emissions in every calendar year that are 40 tpy or less of each regulated air pollutant;

(B) is not a de minimis facility as defined in OAC 252:100-7-1.1;

(C) is not a "major source" as defined in OAC 252:100-8-2 for Part 70 sources;

(D) is not a "major stationary source" as defined in OAC 252:100-8-31 for PSD facilities in attainment areas;

(E) is not a "major stationary source" as defined in OAC 252:100-8-51 for facilities in nonattainment areas;

(F) is not operated in conjunction with another facility or source that is subject to air quality permitting;
(G) is not subject to an emission standard, equipment standard, or work practice standard in the Federal NSPS (40 CFR Part 60) or the Federal NESHAP (40 CFR Parts 61 and 63); and
(H) is not subject to the requirements of OAC 252:100-39-47 (aerospace industries coating operations).

Process equipment: means any equipment, device or contrivance for changing any materials or for storage or handling of any materials, the use or existence of which may cause any discharge of air contaminants into the open air. This would not include equipment specifically defined as fuel-burning equipment, or refuse-burning equipment.

Process weight: means the weight of all materials introduced in a source operation, including solid fuels, but excluding liquids and gases used solely as fuels, and excluding air introduced for the purposes of combustion. Process weight rate means a rate established as follows:
(A) for continuous or long-run, steady-state operations, the total process weight for the entire period of continuous operation or for a typical portion thereof, divided by the number of hours of such period or portion thereof.
(B) for cyclical or batch source operations, the total process weight for a period which covers a complete or an integral number of cycles, divided by the hours of actual process operation during such period.
(C) where the nature of any process or operation or the design of any equipment is such as to permit more than one interpretation of this definition, that interpretation which results in the minimum value for allowable emissions shall apply.

COMMON TYPES OF FACILITIES REQUESTING APPLICABILITY DETERMINATIONS

The following types of facilities that often request Applicability Determinations to confirm de minimis facility or permit-exempt facility status are:

- Oil and gas production sites
- Human and pet crematoria
- Concrete batch plants
- General manufacturing (includes machining, abrasive blasting, welding, and coating)
- Seasonal operations such as grain storage

APPLICATION FEES

For applicable fees, please complete Form 100-815, which is included in this packet.

USEFUL LINKS

1. AP 42, *Compilation of Air Pollutant Emission Factors:*
   http://www.epa.gov/ttn/chief/ap42/index.html

2. TANKS4.09: VOC emissions from organic liquids storage tanks:
   http://www.epa.gov/ttn/chief/software/tanks/index.html

3. Guidance on requesting a determination of "permit-exempt" status, on the AQD web site:
   www.deq.state.ok.us/aqdnew/permtting/advicedocuments.htm.

YOUR APPLICATION MUST INCLUDE:

1. DEQ Form # 100-884 (General Facility Information Form)
2. Form 100-815 (AQ Application Classification fees)
3. Process Description
4. Emissions Information For Each Unit On Site
5. Appropriate Fees (Payable To DEQ Air Quality Division)
6. Facility Plot Plan & Process Flow Diagram

SUBMIT 3 COPIES OF COMPLETED APPLICATION TO:

DEPARTMENT OF ENVIRONMENTAL QUALITY
AIR QUALITY DIVISION
P.O. BOX 1677
OKLAHOMA CITY, OK 73101-1677

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	

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 (%)									
Annual hours of operation		Default 8760 hours (365 days at 24 hours/day)				Other (Specify):			
Fuel usage (scfh)			RPM						

EMISSIONS	NOx	CO	VOC	Formaldehyde
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):		

STORAGE AND LOADING FOR ORGANIC MATERIALS

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					
		Subpart OOOO											
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

**Flash emissions are required for oilfield production units handling crude oil or condensate but are not required for refined products such as gasoline or diesel.

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			
EMISSIONS	**NOx**			**CO**			**VOC**				
lb/MMBTU											
lb/hr											
TPY											
EMISSION DATA SOURCE											
	Manufacturer's Data		AP-42		Stack Test (Attach Testing Report)						
Other (Specify):											

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 ($3/16^{th}$ 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)**		**Uncontrolled Emissions**	
CRUSHERS/GRINDERS								
ID #	**Type**	**TPH**	**TPY**	**lb/ton**	**Type**	**Efficiency (%/100)**	**Lb/hr**	**TPY**

SCREENS		**Process Rate**		**Emissions Factor**	**Control Equipment (if any)**		**Uncontrolled Emissions**	
ID #	**Type**	**TPH**	**TPY**	**lb/ton**	**Type**	**Efficiency (%/100)**	**Lb/hr**	**TPY**

MATERIAL TRANSFER POINTS		**Process Rate**		**Emissions Factor**	**Control Equipment (if any)**		**Uncontrolled 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)**		**Uncontrolled Emissions**	
ID #	**Type**	**TPH**	**TPY**	**lb/ton**	**Type**	**Efficiency (%/100)**	**Lb/hr**	**TPY**

EMISSIONS DATA SOURCE	AP-42 (Revision and Table No.):	
Other (Specify):		

FUGITIVE PM_{10} EMISSIONS – NONMETALLIC MINERAL PROCESSING FACILITIES

Fugitive PM_{10} 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 PM_{10})
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 PM_{10})	a = 0.9, b = 0.45
Vehicle Mile Travel (VMT) per Year, L		Emission Factor, EF (lb/VMT) = $k\ (s/12)^a\ (W/3)^b$	
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 PM_{10})]	
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**	

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	
Lb/MMbtu											
lb/hr											
TPY											
EMISSIONS DATA SOURCE		Manufacturer's Data				AP-42 (1/95), Table No:					
		Stack Test				Other (Specify):					

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 (°F)				
EMISSIONS	**NOx**	**CO**	**VOC**	**SO_2**	**PM_{10}**	**$PM_{2.5}$**	**HAPs**
lb/MMBTU							
lb/hr							
TPY							
EMISSION DATA SOURCE							
	Manufacturer's Data		AP-42		Stack Test (Attach Testing Report)		
Other (Specify):							

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 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		

SAMPLE CALCULATIONS

A. Gas-Fired Fuel-burning Equipment (AP-42, Section 1.4)

Capacity MMBTUH	Hours Operation per Year	Pollutant	Emission Factor lb/MMBTU	Emissions	
				lb/hr	TPY
27.637	8760	NOx	0.1	2.76	12.11
		CO	0.084	2.32	10.17
		VOC	0.0055	0.15	0.67
		PM_{10}	0.0076	0.21	0.92
		SO_2	0.0006	0.02	0.07

B. Emergency Engine Smaller than 600 HP (AP-42, Section 3.3)

Capacity HP	Hours Operation per Year	Pollutant	Emission Factors, lb/hp-hr	Emissions	
				lb/hr	TPY
400	500	NOx	0.031	12.40	3.10
		CO	0.00668	2.67	0.67
		VOC	0.00251	1.00	0.25
		PM_{10}	0.0022	0.88	0.22
		SO_2	0.00205	0.82	0.21

SO_2 Based on 0.05% sulfur

C. Flares (AP-42, Section 13.5)

Capacity MMBTUH	Hours Operation per Year	Pollutant	Emission Factor lb/MMBTU	Emissions	
				lb/hr	TPY
5	8760	NOx	0.068	0.34	1.49
		CO	0.37	1.85	8.10
		VOC	0.14	0.70	3.07
		PM_{10}	0.04	0.20	0.88
		SO_2	0.0006	<0.00	0.01

D. Truck Loading Organic Liquids (AP-42, Section 5.2)

Description	Saturation Factor	Vapor Pressure Psia	Molecular Weight	Temperature ºF	Loading Loss lb/Mgal	Volume Loaded Gallons	Total VOC TPY
Diesel	1	0.0076	140	68	0.03	7,665,000	0.11
Gasoline	1	6.6	66	80	10.05	7,665,000	38.52
Ethanol	0.6	1.81	46.2	62	1.20	65,919,000	39.55

E. Batch Drop / Storage Piles (AP-42, Section 13.2.4)

$E\ (lb/ton) = k * 0.0032 * (U / 5)^{1.3} / (M / 2)^{1.4}$

where k is the particle size multiplier (0.35 for PM_{10}), U is the windspeed (10 mph), and M is the average moisture content (0.7%).

Parameter	Value	Units
k	0.35	
U	10	mph
M	0.7	%
E (lb/ton)	0.0120	PM_{10}

F. Paint Spraying VOC Emissions (Mass Balance)

Hourly Usage gallons	Annual Usage gallons	Density (lb/gal)	Component	Composition	lb/hr	TPY
5	12,000	10.5	PM *	30%	0.32	0.38
			VOC	70%	36.75	44.10
			HAP1	5%	2.63	3.15
			HAP2	10%	5.25	6.30
			HAP3	15%	7.88	9.45
			HAP4	20%	10.50	12.60

* includes retention on product

AIR QUALITY DIVISION **CLASSIFICATION OF AQ PERMIT APPLICATIONS** **& APPLICATION FEES**		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.