



STATE OF ALASKA
Dept. of Environmental Conservation
Division of Air Quality/ Air Permits Program

Minor General Permit 3 (MG3)

Application

for
Hot Mix Asphalt Plants

For Department Use Only	Permit No.: _____
Reviewed by: _____	Date Reviewed: _____
<input type="checkbox"/> Complete <input type="checkbox"/> Incomplete <input type="checkbox"/> Does Not Qualify (specify): _____	

This application is for a Title I Minor General Permit 3 (MG3) for a hot mix asphalt plant with a rated capacity of at least 5 tons per hour, and emits less than 100 tons of a regulated pollutant¹ per year (tpy).

Alaska law requires an owner or operator obtain a minor permit under 18 AAC 50.502(b)(3) before construction, operation, or relocation of a stationary source containing an asphalt plant with a rated capacity of at least five tons per hour.

Alaska law allows the owner/operator to satisfy the need for a minor permit under 18 AAC 50.502(b) with a general minor permit issued under 18 AAC 50.560.

Note that a source with Potential to Emit (PTE) of a regulated air pollutant greater than 100 tpy needs a Title V operating permit. In order to determine the PTE of your stationary source, complete the worksheet in *Attachment 2: Determining Potential to Emit (PTE)*. Regulated pollutant has the meaning given in 40 C.F.R. 71.2.

To obtain an MG3 permit, you must ***complete this application in full*** and send it along with the appropriate application fee to:

**Alaska Department of Environmental Conservation
Air Permits Program
619 E. Ship Creek Avenue, Suite 249
Anchorage, AK 99501**

The administrative fee for this application is not listed with other Air Quality Control administrative fees in 18 AAC 50.400(d). Contact the Department's Air Quality Division Accounting (907-269-6881) for the current fee. *Note: Fees are subject to change. To ensure the correct fee is submitted, contact the Department for assistance.*

If this stationary source would like to **remediate soils using the asphalt plant**, the owner must also apply for an air quality control minor permit for that activity.

If the owner/operator would like to operate a **rock crusher** and is applying for a MG3 for asphalt

¹ Based on AP-42 Emission Factors a diesel engine or engines with a cumulative rating of greater than 2200 bhp will exceed 100 tpy.

plants, they will need to apply for a separate Minor General Permit 9 (MG9) for rock crushing plants in addition to the MG3.

Application Completion and Review Process

You will be notified within 60 days after receipt of the application if your application is complete and if you qualify for the MG3. After your application is determined complete, you will be sent an authorization to operate under the MG3.

By completing this application, the owner or operator acknowledges that the asphalt plant operated under this permit is required to be operated with a fugitive dust control plan to control fugitive particulate (PM) emissions.

Please fill out the completion checklist below before submitting the application to the Department.

Completion Checklist:

- Qualifying Criteria (Section 1) filled out completely
- Stationary Source Identification (Section 3) filled out completely
 - Stationary Source Physical Address
 - Permittee name and contact information
 - Responsible Official name and contact information
 - Billing Contact name and contact information
- Stationary Source Information (Section 4) filled out completely
 - Asphalt Plant information
 - Pollution Control Equipment information
 - Diesel Engine(s) information
 - Equipment summary
- Copy of most recent particulate matter source test results attached to application
 - OR manufacturer specifications showing that plant meets grain-loading standards
 - OR this facility will be tested within 30 operating days after receiving your letter of authorization.
- Diesel Engine manufacturer certifications attached to application (if applicable)
- Process Flow Diagram attached to application
 - All items from Equipment List included
 - Observable emission point(s) marked
- Operation and Maintenance Plan attached to application
- Fugitive Dust Control Plan attached to application
- Potential to Emit (PTE) table (Table A) filled out completely
 - Calculations attached (if applicable)
- Assessable Emissions Estimates (Attachment 4) filled out completely
- Certification statement signed by the Responsible Official

Every box in the checklist above must be checked, with necessary documents attached, in order

for this application to be considered complete (unless the box description is followed by “if applicable”). If the application is not completely filled out with all necessary documents attached, the department will return the application for completion by the applicant. The application will only be approved if all qualifying criteria are met and the application is complete.

Section 1: Qualifying Criteria

A. Pollution Control Equipment.

Your Hot Mix Asphalt Plant will require either a baghouse and/or venturi wet scrubber to control particulate emissions (PM). If you cannot check one of the boxes below, you do not qualify for an MG3 permit. Please contact ADEC.

Check all that apply:

- This hot mix asphalt plant operates with a BAGHOUSE.
- This hot mix asphalt plant operates with a WET SCRUBBER.

B. Exclusions

Please fill out the table below. If you answered “Yes” to any of the questions, then you do not qualify for an MG3 Permit. Please contact ADEC.

Yes	No	Criteria
<input type="checkbox"/>	<input type="checkbox"/>	a. Does the stationary source have a stationary source-specific requirement? <i>Stationary source-specific requirements are restrictions on operations that usually allow the stationary source to avoid an applicable requirement. Examples include limits on hours of operation or fuel combustion. These limits are found in the current permit for your stationary source.</i>
<input type="checkbox"/>	<input type="checkbox"/>	b. Does the stationary source conduct open burning?
<input type="checkbox"/>	<input type="checkbox"/>	c. Does the stationary source contain asbestos demolition or renovation?
<input type="checkbox"/>	<input type="checkbox"/>	d. Does the stationary source contain servicing of refrigeration equipment containing Class I or Class II substances?
<input type="checkbox"/>	<input type="checkbox"/>	e. Does the stationary source contain a gas turbine?
<input type="checkbox"/>	<input type="checkbox"/>	f. Does the stationary source contain an incinerator?
<input type="checkbox"/>	<input type="checkbox"/>	g. Does the stationary source have the potential to emit more than 100 tons per year of a regulated air pollutant (i.e. is it subject to Title V requirements)?
<input type="checkbox"/>	<input type="checkbox"/>	h. Will the asphalt plant operate at the same location as a Title V permitted source? <i>If you check “Yes”, contact ADEC for more information.</i>

C. Diesel Generator (check one)

- This asphalt plant facility will utilize a **stationary** diesel generator(s) to provide electrical power.

If you checked the box above, please answer the following questions. If you answer “No” to any of the following questions, then you do not qualify for an MG3 permit. Please contact ADEC.

Yes	No	Criteria
<input type="checkbox"/>	<input type="checkbox"/>	a. Will the diesel engine(s) have a combined rating of less than 2200 bhp?
<input type="checkbox"/>	<input type="checkbox"/>	b. For diesel engine(s) larger than 500 kW (~650 hp), is the engine’s exhaust stack height higher than 12 feet, as measured from the ground and does it exhaust unrestricted vertically?

- This asphalt plant facility will utilize a diesel generator(s) to provide electrical power but the diesel generator(s) meets the definition of a **nonroad engine**² (see *Attachment 1: Definitions*) and will not remain at the same location for more than 12 months.

² Non-road engine is defined in 40 CFR 89.2 and adopted by reference in 18 AAC 50.

This asphalt plant facility will utilize highline power and will not have a diesel generator.

D. Location Criteria.

Please answer the question below. If you answered “No” then you do not qualify for an MG3 permit. Please contact ADEC.

- | Yes | No | Criteria |
|--------------------------|--------------------------|---|
| <input type="checkbox"/> | <input type="checkbox"/> | a. Will the stationary source follow the location considerations specified in Section 2? |
| <input type="checkbox"/> | <input type="checkbox"/> | b. If your facility is to be located in a Special Sulfur Dioxide Protection Area (Unalaska or St. Paul Island), will the stationary source follow the restrictions in Section 12: Special Sulfur Dioxide Protection |

Section 2: Location Considerations

When applying to operate an asphalt plant, the applicant should consider the permit conditions relating to selecting an operating site for the asphalt plant facility.

Permit Condition 1 states that the Permittee should give adequate consideration to siting issues when operating or changing the location of an asphalt plant. Specifically, do not operate the asphalt plant or diesel engine within **330 ft** of the nearest occupied structure off the work site.

In addition, do not operate for more than two construction seasons at the same site located within **800 ft** of the nearest residence or occupied structure or within **1100 ft** of the nearest residence or occupied structure if the plant is located on terrain that is more than 50 ft above any ground level of the aggregate drier or drum mixer.

These setback distances were designed to protect the State ambient air quality standards and increments listed in 18 AAC 50.010 and 18 AAC 50.020.

The stationary source must comply with these terms when operating the asphalt plant facility under this general permit.

Section 3: Stationary Source Identification Information

Stationary Source Name	
Physical Address ³	
City, State, Zip Code	
UTM Coordinates <u>OR</u> Latitude/Longitude	

³ This should include a street number or legal description of the property. For a portable stationary source operating at a location without an address, describe the location to the nearest landmark.

Stationary Source Contact Information

*Permittee - The entity applying for the permit. This can be either the owner or the operator.			
Name		Title	
Mailing Address		Phone Number	
City, State, Zip		Email Address (optional)	
*Responsible Official⁴ - The name of the individual responsible for the plant's day- to-day operations.			
Name		Title	
Mailing Address		Phone Number	
City, State, Zip		Email Address (optional)	
*Billing Contact			
Name		Title	
Mailing Address		Phone Number	
City, State, Zip		Email Address (optional)	
Legal Owner - The stationary source's legal owner. The legal owner could be either a person or a company.			
Name		Title	
Mailing Address		Phone Number	
City, State, Zip		Email Address (optional)	
Point of Contact – If different from Responsible Official.			
Name		Title	
Mailing Address		Phone Number	
City, State, Zip		Email Address (optional)	
Stationary Source's Consultant - If applicable, the name of the business or entity that prepared the application and/or prepares reports.			
Name		Title	
Mailing Address		Phone Number	
City, State, Zip		Email Address (optional)	
Designated Agent - The regulations allow Permittees to designate an individual responsible for permit matters. The designated agent could be a person, a separate company, or a law firm.			
Name		Title	
Mailing Address		Phone Number	
City, State, Zip		Email Address (optional)	
Individuals from your organization authorized to incur fees (please include consultants, if applicable)			
Name		Name	
Name		Name	

*Required fields.

⁴ Responsible Official is defined in 18 AAC 50.990(93). See Attachment 1.

Section 4: Stationary Source Information

In the tables below, fill out the operation information for the asphalt plant, pollution control equipment, and diesel engines that will operate with this stationary source.

<i>Asphalt Plant – check boxes that apply and complete all fields.</i>			
Does your plant have a dryer batch processing unit or drum continuous processing unit?			
<input type="checkbox"/> Dryer		<i>For the purpose of this application, asphalt plants with a dryer proportion the mix in batches by either weight or volume. Components of this type of a stationary source usually consist of a dryer, burner, screens, and a pug mill. Asphalt plants with a drum proportion the mix by a continuous volumetric proportion system and mix the asphalt oil and aggregate in the drum.</i>	
<input type="checkbox"/> Drum			
Make:		Model:	
Serial No.:		Year of Manufacture:	
Is your facility portable? <input type="checkbox"/> Yes <input type="checkbox"/> No		Fuel Type: <input type="checkbox"/> Used oil fuel blends <input type="checkbox"/> Heavy fuel oils <input type="checkbox"/> Natural Gas <input type="checkbox"/> #1 or #2 fuel oil <input type="checkbox"/> Highline Power <input type="checkbox"/> Other: _____	
Maximum rated capacity ⁵ :		tph	Primary Burner Size: btu/hr
Maximum Fuel Feed:		gallon/hr	Chamber Size: cubic ft

<i>Pollution Control Equipment – check boxes that apply and complete the required information.</i>			
*Primary PM control device:			
<input type="checkbox"/> Cyclone	<input type="checkbox"/> Knockout Box (settling chamber)		<input type="checkbox"/> Other (specify):
Particle size removed:			
*Secondary PM control device:	<input type="checkbox"/> Baghouse		<input type="checkbox"/> Scrubber
*Make:		*Model:	
*Serial No.:		*Year of Manufacture:	
*Capture Efficiency: %		*Control Efficiency: %	
Efficiency determined by:			
*Exhaust stack height: feet		*Stack Diameter: inches	
Exit gas temperature: °F		Exit gas velocity:	
Actual exit gas flow rate:		Data source ⁶ :	

*Required

⁵ Maximum rated capacity of asphalt production in tons per hour (tph). This number is the maximum that the plant can produce, not the typical production for your facility.

⁶ Engineering data, Source Test, Vendor data.

Diesel Engines – complete required fields for each diesel engine.	
Engine 1	Is this engine stationary or non-road? <input type="checkbox"/> Stationary <input type="checkbox"/> Non-road ⁷
Make:	Model:
Serial #:	Manufacture Date:
Portable? <input type="checkbox"/> Yes <input type="checkbox"/> No	Design Capacity: hp, kW, MW
Exhaust Stack Diameter: inches	Maximum fuel rate: gal/hr
Engine 2	Is this engine stationary or non-road? <input type="checkbox"/> Stationary <input type="checkbox"/> Non-road
Make:	Model:
Serial #:	Manufacture Date:
Portable? <input type="checkbox"/> Yes <input type="checkbox"/> No	Design Capacity: hp, kW, MW
Exhaust Stack Diameter: inches	Maximum fuel rate: gal/hr
Engine 3	Is this engine stationary or non-road? <input type="checkbox"/> Stationary <input type="checkbox"/> Non-road
Make:	Model:
Serial #:	Manufacture Date:
Portable? <input type="checkbox"/> Yes <input type="checkbox"/> No	Design Capacity: hp, kW, MW
Exhaust Stack Diameter: inches	Maximum fuel rate: gal/hr

Other Equipment Summary

Equipment Type	Number of Units
Conveyors	
Screens	
Asphalt cement heaters (fuel-fired)	
Asphalt oil heaters (fuel-fired)	
Silo heaters (fuel-fired)	

SIC/NAICS Codes: check all that apply

- 1442 (SIC)/212321 (NAICS) Construction Sand & Gravel
- 1446 (SIC)/212322 (NAICS) Industrial Sand
- 1611 (SIC)/237310 (NAICS) Highway & Street Construction
- 1629 (SIC)/236210 (NAICS) Heavy construction
- 1771 (SIC)/238110 (NAICS) Driveways & parking lots (concrete work)
- 2951 (SIC)/324121 (NAICS) Asphalt Paving Mixtures and Blocks
- Other (provide code & describe activity): _____

⁷ Non-road engine is defined in 40 C.F.R. 89.2. See Attachment 1 for description.

Section 5: Particulate Matter Source Test Requirements

Please attach copies of the most recent particulate matter source test results for this hot mix asphalt plant or attach a manufacturer's certification that the hot mix asphalt plant will meet the following grain loading standards:

- 0.04 gr/dscf for asphalt plants constructed or modified *after* **June 1973**; or
- 0.05 gr/dscf for asphalt plants constructed or modified *before* **June 1973**.

For asphalt facilities that are used but new to the State of Alaska, attach results of a source test that shows the hot mix asphalt plant meets the grain loading standards listed above.

If a PM source test has not been approved by the Department at your facility within the last five years, the minor general permit will require you to conduct a PM source test within the first 30 operating days after receiving your letter of authorization.

Section 6: Stationary Diesel Engine Generator Certification

Please attach documents that certify that the stationary diesel engine generator will meet the grain loading standard for fuel burning equipment of 0.05 grains per dry standard cubic feet (gr/dscf).

There is some question whether engines less than 200 hp meet the particulate matter standard of 0.05 gr/dscf. For engines of this size please include vendor particulate emission estimates including exhaust flow estimates, source test of an identical unit or a schedule when a source test will be performed on that unit.

You do not need to attach a certification if the generator engine is a non-road engine. See Attachment 1 for the non-road engine definition.

Section 7: Process Flow Diagram

Please attach a process flow diagram to this application. Stationary source process diagrams show the typical stationary source process and identify each emission point, which emission points will be monitored, and control device(s). See example process flow diagram on the next page (excerpt from US Environmental Protection Agency AP 42, Fifth Edition, Volume I, Chapter 11: Mineral Products Industry, 11.1 Hot Mix Asphalt Plants, April 2004).

This page intentionally left blank. To be replaced with sample process diagram.

Section 8: Operation and Maintenance Plan

The Department strongly encourages the Owner or Operator to develop and implement an Operation and Maintenance (O&M) Plan as the means to comply with Good Air Pollution Control Practice requirements under 18 AAC 50.030 listed in the MG3.

The O&M Plan should be updated on a periodic basis and whenever the stationary source has a change in operations. The plan should include checklists for the daily, weekly, monthly, and seasonal checks and records. The plan should consider and discuss the following:

Dryer and burner

- A. Inspection of excess air and damper settings.
- B. Inspection for cracks or holes in the dryer shell and inspection of dryer components.
- C. Maintenance of the burner and associated components

Dry Cyclone (if applicable)

- A. Inspection/adjustment of vortex shield in order to maximize the cyclone efficiency.
- B. Monthly inspection of cyclone's physical integrity and dust collection system.

Fabric Filter (Baghouse)

Record manufacturer's specified temperatures, pressure and flow rate. Monitoring of Operation:

Record daily and compare with manufacturer's specifications or opacity regulation:

- A. Pressure at baghouse inlet/outlet inches water column
- B. Temperature at baghouse inlet
- C. Dust level in hopper
- D. Discharge pressure at air compressor for bag cleaning in psig
- E. Screw conveyor motor amps meter
- F. Visible emissions

Preventative Maintenance:

Weekly Maintenance Recommendations

- A. Check for and remove dust from the clean side of the tubesheet area and check for corrosion. If more than a dust film is found, then locate and repair the leak
- B. Check inlet and outlet damper seals, repair if needed
- C. Thoroughly inspect bags, replace damaged bags, clamps, or cages, immediately
- D. Check all damper valves for proper operation, repair seal as necessary
- E. Check bag shaker assembly or compressed air lines including, filters, and dryers, replace parts as necessary
- F. Check operation and sequence of all compressed air valves

Monthly Maintenance

- A. Clean, Repair/replace bags per manufacturer's recommendation. Log work
- B. Inspect inside of housing for corrosion
- C. Inspect door seals, repair as necessary

Wet scrubber (venturi scrubber)

Record manufacturer's specified pressure drop and flow rate.

Record daily and compare with manufacturer's specifications or opacity regulation:

- A. Gas pressure at scrubber venturi inlet/outlet
- B. Scrubbing water inlet and outlet temperature, °F and pressure, psig
- C. Water Pump motor current draw, amps or water flow rate
- D. Visible emissions from stack. Excessive droplet carryover indicates poor mist eliminator performance

*Preventative Maintenance**Weekly*

- A. Check pump for leaking gland. Replace defective mechanical seal or packing
- B. Inspect piping valves and fittings for leaks or signs of corrosion
- C. Check the scrubber for holes and leaks, repair as necessary.
- D. If the scrubbing water appears muddy, check settling/cooling pond.

Monthly

- A. Inspect the mist eliminator, including internals, for proper operation, plugging and corrosion.
- B. Clean out and/or repair.

Once per season

- A. Completely flush the scrubber piping and clean out instrument connections, check accuracy of instruments (pressure gauges, thermocouples etc.)
- B. Thoroughly inspect the scrubber body, venturi plate, and lining.

Ductwork and induced draft fan*Preventative Maintenance**Weekly*

- A. Make quick visual inspections for holes or leaks
- B. Operate dampers several times to insure proper operation
- C. Inspect fan bearings for proper oil level and temperature, excess vibration
- D. Check fan belts for proper tension, wear
- E. Thoroughly inspect stack for holes, crack, leaks, and repair as necessary

Monthly

- A. Inspect ductwork for leaks
- B. Inspect the fan bearing housing for leaks and cracks, repair as necessary
- C. Open the fan housing and inspect the wheel for abrasion, corrosion, and material buildup

Once per season

- A. Thoroughly inspect damper blades for wear, replace if necessary
- B. Inspect automatic damper drives, bearings, repair or replace as necessary
- C. Thoroughly inspect all ductwork joints and seals for tightness

Section 9: Fugitive Dust Control Plan

Attach a fugitive dust control plan that addresses each fugitive dust source and how the facility owner or operator plans to take reasonable precautions to prevent fugitive dust.

The Fugitive Dust Control Plan (Plan) has the purpose to control the fugitive dust emissions from asphalt plant and crusher related activities. The Plan is required for all Minor General Permit holders in order to ensure that reasonable precautions to prevent fugitive dust are taken.

A sample plan can be found in *Attachment 5: Sample Fugitive Dust Control Plan*. This plan may be filled out and used for any Minor General Permitted source. You are not required to use the sample form, but similar information contained in the sample form should be included in your plan. If you already have a plan developed or you wish to develop your own plan, the following items should be addressed:

- Points capable of producing fugitive emissions;
- Control of fugitive dust sources, such as:
 - Water application;
 - Dust suppressants;
 - Wind barriers;
 - Hoods, covers, or enclosures;
 - Cleanup of loose materials;
 - Minimizing drop distances and lowering loader buckets before dumping;
 - Fans;
 - PM control devices;
- Methods to prevent vehicle track-out or carryout, such as:
 - Grizzlies or grates;
 - Gravel pads;
 - Paved surfaces;
 - Wheel washers;
 - Truck washing.

Section 10: Potential to Emit

Provide the Asphalt Plant and Diesel Engine Potential to Emit (PTE) for PM in tons per year (tpy) in Table A. If your diesel engines qualify as non-road engines (See *Attachment 1: Definitions*), do not count their PTE in “Total PTE.”

See *Attachment 2: Determining Potential to Emit (PTE)* for instructions on how to determine PTE for your facility. If the PTE tables in *Attachment 2: Determining Potential to Emit (PTE)* are not used for completing Table A, please include your PTE calculations with this application.

Table A: Potential to Emit (PTE)

Pollutant	Asphalt Plant	Diesel Generator	Total PTE
NO _x			
CO			
SO _x			
PM-10			
VOC			

Section 11: Emission Fees

Applicants must include an estimate for the emissions from the stationary source with their application. The Department will assess fees per ton of each air pollutant that the stationary source emits or has the potential to emit (PTE) in quantities greater than 10 tpy. The quantity for which fees will be assessed is the lesser of the stationary source’s assessable PTE measured in tpy; or the stationary source’s projected annual rate of emissions that will occur from July 1 to the following June 30. Alternately, you may opt to use PTE from Section 10: Potential to Emit for your Emission Fee calculation. The use of larger potential emissions will result in larger fees.

Complete and submit the form in *Attachment 4: Emission Fee Estimate* to the Department to report your emission estimates for the current state fiscal year.

Use *Attachment 3: Calculating Assessable Emissions* as a guide and worksheet for completing the emissions fee estimate. The emissions estimate may be made based on the previous year's operations or the expected operations for the coming year. Emission fees are billed in advance by the department before July 1st of the current year.

In order to estimate emission fees you must have the following information available:

1. Tons of asphalt produced in the previous year, or hours of asphalt production, or expected tons of asphalt to be processed.
2. Hours, or expected hours, of operation of the diesel engine(s).

The actual hours of operation (if not known) may be estimated by dividing the tons of asphalt produced by the rated capacity of the asphalt plant. If the asphalt plant is operated at less than the maximum rate of production, use that rate in place of the rated capacity.

Total the estimated emissions from the Asphalt Plant and the Diesel Generator(s) for each pollutant. Enter the total amount in the Total Estimated Emissions block.

The current emission fee rate may be found in 18 AAC 50.410.

Section 12: Special Sulfur Dioxide Protection Areas

Two areas in the state have been defined as special protection areas for sulfur dioxide under 18 AAC 50.025(c)(1).

- The Unalaska area, the land and water areas within 3.4-mile radius of the intersection of 53 53'4" N latitude and 166 32'11" W longitude.
- The St. Paul Island area, the land and water areas south of UTM Northing 6333.00 kilometers (57 8'29" N latitude) and within 0.6 kilometers of St. Paul Island.

The special protection areas for sulfur dioxide are established to prevent the violation of the ambient air quality standard and maximum allowable ambient concentration for sulfur dioxide. The following restrictions on operation apply in the protection areas:

- The stationary source must use only Ultra Low Sulfur Diesel fuel in diesel engines or use highline power for electricity generation.

Section 13: Certification

Based on information and belief formed after reasonable inquiry, I certify that the statements and information in and attached to this document are true, accurate, and complete.

Signature of Responsible Official

Printed Name

Title

Attachment 1: Definitions

Assessable Emission means:

[18 AAC 50.990(13)]

“Assessable emission” has the meaning given in AS 46.14.250(h)(1);

[AS 46.14.250(h)(1)]

“Assessable emission” means the quantity of each air pollutant for which emission fees are assessed and is the lesser of

- A) The stationary source’s potential to emit, in tons per year, each air pollutant; or
- B) The projected annual rate of emissions, in tons per year, of each air pollutant by the stationary source based upon previous actual annual emissions if the permittee can demonstrate to the department its previous actual annual rate of emissions through monitoring, modeling, calculations, or other method acceptable to the department.

Potential to Emit (PTE) means:

[18 AAC 50.990(80)]

“Potential to emit” has the meaning given in AS 46.14.990;

[AS 46.14.990(22)]

“Potential to emit” has the meaning given in 40 C.F.R. 51.166(b);

[40 C.F.R. 51.166(b)(4)]

Potential to emit means the maximum capacity of a stationary 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 federally enforceable. Secondary emissions do not count in determining the potential to emit of a stationary source.

Responsible official means:

[18 AAC 50.990(93)]

- A) For a corporation, a president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy or decision making functions for the corporation, or a duly authorized representative of that person if the representative is responsible for the overall operation of one or more manufacturing, production, or operating facilities applying for or subject to a permit under AS 46.14 or this chapter, and
 - i. The facilities employ more than 250 persons or have gross annual sales or expenditures exceeding \$25 million in second quarter 1980 dollars; or
 - ii. The delegation of authority to the representative is approved in advance by the department;
- B) For a partnership or sole proprietorship, a general partner or the proprietor, respectively; and
- C) For a public agency, a principal executive officer or ranking elected official; for the purposes of this chapter, a principal executive officer of a federal agency includes the chief executive officer with responsibility for the overall operations of a principal geographic unit in this state;

Nonroad engine means:

[18 AAC 50.990(63)]

“Nonroad engine” has the meaning given in 40 C.F.R. 89.2, as revised as of September 18, 2007, adopted by reference.

[40 C.F.R. 89.2]

- A) Except as discussed in paragraph (B) of this definition, a nonroad engine is any internal combustion engine:
- i. In or on a piece of equipment that is self-propelled or serves a dual purpose by both propelling itself and performing another function (such as garden tractors, off-highway mobile cranes and bulldozers); or
 - ii. In or on a piece of equipment that is intended to be propelled while performing its function (such as lawnmowers and string trimmers); or
 - iii. That, by itself or in or on a piece of equipment, is portable or transportable, meaning designed to be and capable of being carried or moved from one location to another. Indicia of transportability include, but are not limited to, wheels, skids, carrying handles, dolly, trailer, or platform.
- B) An internal combustion engine is not a nonroad engine if:
- i. The engine is used to propel a motor vehicle or a vehicle used solely for competition, or is subject to standards promulgated under section 202 of the Act; or
 - ii. The engine is regulated by a federal New Source Performance Standard promulgated under section 111 of the Act; or
 - iii. The engine otherwise included in paragraph (1)(iii) of this definition remains or will remain at a location for more than 12 consecutive months or a shorter period of time for an engine located at a seasonal source. A location is any single site at a building, structure, facility, or installation. Any engine (or engines) that replaces an engine at a location and that is intended to perform the same or similar function as the engine replaced will be included in calculating the consecutive time period. An engine located at a seasonal source is an engine that remains at a seasonal source during the full annual operating period of the seasonal source. A seasonal source is a stationary source that remains in a single location on a permanent basis (i.e., at least two years) and that operates at that single location approximately three months (or more) each year. This paragraph does not apply to an engine after the engine is removed from the location.

Attachment 2: Determining Potential to Emit (PTE)

Use the following tables to determine PTE for your facility, or calculate PTE using approved emission factors (EF) and equations to complete Table ATable A in Section 10: Potential to EmitSection 10: Potential to Emit of this application. The tables below provide approved EFs and emissions equation based on AP-42, 5th edition.

How to use the Emissions Calculation Tables:

Asphalt Plant

1. You will need to the following information to proceed:
 - a. Type of hot mix asphalt plant (batch mix or continuous drum);
 - b. The rated capacity (RC) of your asphalt plant in tons per hour (tph); and
 - c. Type of control equipment (baghouse or scrubber).
2. Round the RC value of your asphalt plant to the nearest value listed in the tables.
3. Based on RC, find the emissions calculation in each table that applies to your operation and record in the table at the end of this attachment.
4. Record the potential emissions in Section 10, Table ATable A, Asphalt Plant column.

Diesel Engines

1. You will need the following information to proceed:
 - a. Rated capacity (in horsepower (hp)) of each diesel engine; and
 - b. If your engines are classified as stationary or non-road.
2. Determine the PTE of each diesel engine separately.
3. Round each RC to the nearest value found in the tables (increments of 25 or 50 hp).
4. Use the table that fits the engine you are calculating PTE for. One table is for engines with RC of more than 600 hp, the other is for smaller engines.
5. Record the emissions value in the table at the end of this attachment for each pollutant for each engine based on RC value.
6. Add up the potential emissions for all engines and record in Section 10, Table ATable A, Diesel Engines column.

Total and Stationary PTE

1. For Total PTE, add all diesel engine PTE values for each pollutant, and add all engines plus asphalt plant PTE for each pollutant. Non-road engine PTE should be included in this total.
2. For Stationary PTE, total all PTE values for each pollutant for the stationary engines and asphalt plant. Do not count non-road engines in this total.
3. Record the Total and Stationary Total in Section 10, Table ATable A, Total and Stationary columns.

NOTE: You can calculate PTE without using the tables in this attachment. If you do your own calculations, please attach a copy to this application for Department review. You can use the general calculation instructions in *Attachment 3: Calculating Assessable EmissionsAttachment 3: Calculating Assessable Emissions*, using 3650 operating hours, as a reference for completing your own calculations.

This page intentionally left blank. To be replaced with emission tables.

Attachment 3: Calculating Assessable Emissions

Assessable Emissions differ from a source's Potential to Emit (PTE). PTE is used in calculating a source's permit applicability and classification, i.e. minor or major source. While PTE does not include fugitive particulate emissions, assessable emissions do. A source can be classified as a minor source, yet have emission fees based on a criteria pollutant in excess of 100 tons. Likewise, a major source can have a PTE in excess of 100 tpy of a criteria pollutant, yet pay emission fees for that pollutant at a rate far lower. Assessable Emissions use the same calculations as PTE, only operating hours are not based on a maximum potential of 3650 hours (assumed) but instead are based on actual operation for a calendar year. For examples and steps on completing this form to assist in submission of Assessable Emissions, please see the information below.

Equation:

$$E = (EF \times (\text{tons of asphalt produced or hours of operation in a given year} \times RC)) / 2000 \text{ lbs per ton}$$

Abbreviations:	
tpy	tons per year
tph	tons per hour
EF	emission factor (AP-42)
RC	rated capacity (hp for diesel engines)
lbs	pounds
E	emissions
ULSD	Ultra low sulfur diesel
NoC	number of conveyers

Report using *Attachment 4: Emission Fee Estimate* and submit with this application. Each emission unit (asphalt plants and diesel engines) listed in Section 4: Stationary Source Information will need a separate calculation using equations provided, where rated capacity is the horsepower for diesel engines and tons per hour for the asphalt plant.

Emission factors are pollutant/emission unit specific. Fuel assumes use of Ultra Low Sulfur Diesel (ULSD); please contact the Department for assistance if you use alternative fuels. Please see the worksheet on the next page for emission factors and further assistance.

MG3 Assessable Emissions Calculations Worksheet

Asphalt Plants	CO	NO_x	SO₂	VOC	PM-10¹	PM-10²
Batch Mix Asphalt Plant	0.4	0.12	0.088	0.0082	0.027	0.14
Drum Mix Asphalt Plant	0.13	0.055	0.011	0.032	0.023	0.04

Asphalt plant emission factors are given in lbs of pollutant per ton of asphalt produced.

¹: PM-10 EF for use with a baghouse

²: PM-10 EF for use with a wet-scrubber

Diesel Engines	CO	NO_x	SO₂³	VOC	PM-10	
Greater than 600hp	0.0055	0.024	1.2x10 ⁻⁵	0.000705	0.0007	
Less than 600hp	0.00668	0.031	1.2x10 ⁻⁵	.0000247	0.0022	

Diesel engine emission factors are given in lbs of pollutant per horsepower-hour.

³: SO₂ EF for use with ULSD

Asphalt Plant Worksheet: E = (EF x tons of asphalt produced) / 2000 lbs per ton

CO	NO _x	SO ₂	VOC	PM-10

Diesel Engine Worksheet: E = (EF x hours of operation x RC) / 2000 lbs per ton

CO	NO _x	SO ₂	VOC	PM-10

Total Emissions: add all rows above for listed emission units.

CO	NO _x	SO ₂	VOC	PM-10

Assessable Emissions: for any pollutant total greater than 10 (tons), round to nearest whole number, for any pollutant less than 10 tons, round down to 0. Enter these values below and on **Attachment 4** and submit with this application.

CO	NO _x	SO ₂	VOC	PM-10

Attachment 5: Sample Fugitive Dust Control Plan

Please note it is the responsibility of the Permittee to ensure that no part of their fugitive dust control plan violates any local, state, or federal law.

Section 1 – General Information

1-A Facility Information	
Company Name:	
Plant Name:	
Permit No.:	
1-B Contacts	
Report the names, address, and phone numbers of persons and owners or operators responsible for the implementation of the Dust Control Plan and responsible for the dust generating operation and dust control applications.	
<i>Responsible Official</i> (authorized under 18 AAC 50.990(93))	
Name:	
Phone Number:	
<i>On-site Manager/Operator or Point of Contact</i> (if different from above)	
Name:	
Phone Number:	
1-C Recordkeeping and Reporting	
Keep copy of Fugitive Dust Control Plan on-site at all times. Keep records of deviations from dust plan, reasons for the deviation, and corrective actions taken for at least five years.	

Section 2 – Fugitive Emission Points

2-A Fugitive Emission Points
Identify the relative locations of actual and potential sources of fugitive dust emissions.
<input type="checkbox"/> Bulk material handling and storage areas. <input type="checkbox"/> Paved and unpaved access roads, haul roads, traffic areas, and equipment storage yards. <input type="checkbox"/> Exit points where carryout and vehicle track-out onto paved public roads may occur. <input type="checkbox"/> Water supply locations if water application will be used for controlling visible dust emissions. <input type="checkbox"/> Rock crushing operations. <input type="checkbox"/> Screening <input type="checkbox"/> Conveyors <input type="checkbox"/> Fines Screening <input type="checkbox"/> Asphalt plant operations <input type="checkbox"/> Screening <input type="checkbox"/> Conveyors <input type="checkbox"/> Baghouse Catch <input type="checkbox"/> Drum Mixer Discharge <input type="checkbox"/> Hot mix storage silo receiving point
2-B Comments – Fugitive Emission Points

Section 3 – Control of Fugitive Dust Sources

<p>3-A Control of Fugitive Dust Sources</p> <p>Check any boxes that apply. Checked boxes represent methods that will be used <i>as needed</i>.</p>
<p><i>Active Operations</i></p> <p><input type="checkbox"/> Water will be applied to dry areas during leveling, grading, trenching, and earthmoving activities.</p> <p><input type="checkbox"/> Wind barriers will be constructed and maintained, and water or dust suppressants will be applied to the disturbed surface areas.</p>
<p><i>Inactive Operations, including after work hours, weekends, and holidays</i></p> <p><input type="checkbox"/> Not applicable for this project (Please explain why in Section 3-C).</p> <p><input type="checkbox"/> Water or dust suppressants will be applied on disturbed surface areas to form a visible crust, and vehicle access will be restricted to maintain the visible crust.</p>
<p><i>Sites Inactive for Seven or More Days</i></p> <p><input type="checkbox"/> Not applicable for this project (Please explain why in Section 3-C).</p> <p><input type="checkbox"/> Vehicle access will be restricted and water/dust suppressants will be applied at all un-vegetated areas.</p> <p><input type="checkbox"/> Vegetation will be established on all previously disturbed areas.</p> <p><input type="checkbox"/> Gravel will be applied and maintained at all previously disturbed areas.</p> <p><input type="checkbox"/> Previously disturbed areas will be paved.</p>
<p><i>Unpaved Access and Haul Roads, Traffic and Equipment Storage Areas</i></p> <p><input type="checkbox"/> Not applicable for this project (Please explain why in Section 3-C).</p> <p><input type="checkbox"/> Apply water or dust suppressants to unpaved haul and access roads.</p> <p><input type="checkbox"/> Post speed limit signs of not more than 15 mph at each entrance, and again every 500 ft.</p> <p><input type="checkbox"/> Water or dust suppressants will be applied to vehicle traffic and equipment storage areas.</p>
<p><i>Wind Events</i></p> <p><input type="checkbox"/> Water application equipment will apply water to control fugitive dust during wind events, unless unsafe to do so. Outdoor construction activities that disturb the soil will cease whenever visible dust emissions cannot be effectively controlled.</p>
<p>3-B Bulk Materials</p> <p>Check any boxes that apply. Checked boxes represent methods that will be used <i>as needed</i>.</p>
<p><i>Outdoor Handling of Bulk Materials</i></p> <p><input type="checkbox"/> Water or dust suppressants will be applied when handling bulk materials.</p> <p><input type="checkbox"/> Wind barriers with less than 50 percent porosity will be installed and maintained, and water or dust suppressants will be applied.</p>
<p><i>Outdoor Storage of Bulk Materials</i></p> <p><input type="checkbox"/> Water or dust suppressants will be applied to storage piles.</p> <p><input type="checkbox"/> Storage piles will be covered with tarps, plastic, or other suitable material and anchored in such a manner that prevents the cover from being removed by wind actions.</p> <p><input type="checkbox"/> Wind barriers with less than 50 percent porosity will be installed and maintained around the storage piles and water or dust suppressants will be applied.</p> <p><input type="checkbox"/> A three-sided structure (< 50% porosity) will be used that is at least as high as the storage piles.</p>
<p><i>On-Site Transporting of Bulk Materials</i></p> <p><input type="checkbox"/> Vehicle speed will be limited on the work site.</p> <p><input type="checkbox"/> All haul trucks will be loaded such that the freeboard is not less than six inches when transported across any paved public access road.</p> <p><input type="checkbox"/> A sufficient amount of water will be applied to the top of the load to limit visible dust emissions.</p> <p><input type="checkbox"/> Haul trucks will be covered with a tarp or other suitable cover.</p>

Section 3 – Control of Fugitive Dust Sources (cont.)

<p>3-B Bulk Materials - continued</p> <p><i>Off-Site Transporting of Bulk Materials</i></p> <p><input type="checkbox"/> No bulk materials will be transported to or from the project site.</p> <p><input type="checkbox"/> Materials for transport will be wetted as needed.</p> <p><input type="checkbox"/> Covers will be used, as needed. Some or all of the following will be used as necessary:</p> <ul style="list-style-type: none"> • The interior of emptied truck cargo compartments will be cleaned or covered before leaving the site. • Spillage or loss of bulk materials from holes or other openings in the cargo compartment’s floor, sides, and tailgates will be prevented. • Haul trucks will be covered with a tarp or other suitable cover or will be loaded such that the freeboard is not less than six inches when transported on any paved public access road to or from the project site. <p><i>Outdoor Transport using a Chute or Conveyor</i></p> <p><input type="checkbox"/> No chutes or conveyors will be used.</p> <p><input type="checkbox"/> Chute or conveyor will be fully enclosed.</p> <p><input type="checkbox"/> Water spray equipment will be used to sufficiently wet the materials.</p> <p><input type="checkbox"/> Transported materials will be washed or screened to remove fines (PM-10 or smaller).</p> <p>3-C Comments – Control of Fugitive Dust Sources</p>
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Section 4 – Dust Control Methods

<p>4-A Water Application</p> <p>Complete this section if water application will be used as a control method for limiting visible dust emissions and stabilizing surface areas. Check and answer everything that applies. Checked boxes represent methods that will be used <i>as needed</i>.</p> <p><i>Water Application Equipment:</i></p> <p><input type="checkbox"/> Sprinklers: Describe the activities that will utilize sprinklers: _____</p> <p><input type="checkbox"/> Water Truck, <input type="checkbox"/> Water Trailer, <input type="checkbox"/> Water Wagon, <input type="checkbox"/> Other: _____ Describe the activities that will utilize this equipment: _____</p> <p>Water application equipment is available to operate after normal working hours, on weekends, and holiday. After-hours contact: _____ Phone number: _____</p> <p><i>Water Supply (as needed):</i></p> <p><input type="checkbox"/> Fire hydrants. Obtain necessary approval to use specific hydrants.</p> <p><input type="checkbox"/> Storage tanks Number and capacity: _____</p> <p><input type="checkbox"/> Wells Number and flow rate: _____</p> <p><input type="checkbox"/> Canal, River, Pond, Lake, etc. Describe: _____</p> <p>Approval granted by the owner or public agency to use their water source for this project. Owner or Agency: _____ Contact: _____ Phone number: _____</p> <p><input type="checkbox"/> Other: _____</p>
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Section 5 – Carryout and Vehicle Track-out

5-A Treatments for Preventing Vehicle Track-out

Track-out is any material that adheres to vehicle tires and is deposited onto a paved public road or the paved shoulder of a paved public road. Check one or a combination that will apply.

Grizzly: Rails, pipes, or grates used to dislodge debris off of vehicles before exiting the site. Extends from the intersection with the paved public road surface for the full width of the unpaved exit surface for the distance of at least 25 feet.

Describe: _____

Gravel Pad: A layer of washed gravel at least one inch or larger in diameter, three inches deep, and extends from the intersection with the public paved road surface for the full width of the unpaved exit surface for a distance of at least 50 feet.

Describe: _____

Paved Surface: Extends from the intersection with the paved public road surface for the full width of the unpaved access road for at least 100 feet to allow mud and dirt to drop off of vehicles before exiting the site.

Describe: _____

Mud and dirt deposits accumulating on paved interior roads will be removed with sufficient frequency, but not less frequently than once per workday.

Clean-up Frequency: _____

Wheel Washer: Uses water to dislodge debris from tires and vehicle undercarriage.

Describe: _____

Other: _____

5-B Treatments for Preventing Carryout

Carryout occurs when materials from emptied or loaded haul trucks, vehicles, or trailers falls onto a paved public road or paved shoulder of a paved public road. Check all methods that apply.

No haul trucks will be routinely entering or leaving the project site.

Emptied Haul Trucks:

Interior cargo compartments will be cleaned before leaving the project site.

Cargo compartment will be covered with a tarp or suitable cover before leaving the project site.

Loaded Haul Trucks: Spillage or loss of materials from holes or other opening in the cargo compartment will be prevented when material is transported onto any paved public access road.

Haul trucks will be loaded such that the freeboard is not less than six inches with water applied to the top of the load before leaving the project site.

Cargo compartment and load will be covered with a tarp or suitable cover before leaving the project site.

Other: _____

5-C Cleaning up Carryout and Track-out

Clean up Method: Check the method(s) below that will be used for cleaning carryout and track-out.

Manually sweeping and picking up.

Mechanical sweeping with a rotary brush or broom accompanied or preceded by water.

Describe the types of equipment that will be used: _____

Operating a PM10-efficient street sweeper.

Make and Model: _____

Flushing with water – allowed if:

- No curbs or gutters are present.
- Using water will not result as a source of track-out and carryout.
- Using water will not result in adverse impacts on storm water drainage systems.
- Using water will not violate any National Pollutant Discharge Elimination System permit program or Alaska Department of Environmental Conservation, Division of Water Permit.

5-D Comments - Carryout and Track-out
