STATE OF ALASKA

Dept. of Environmental Conservation
Division of Air Quality/ Air Permits Program

General Permit Application

for

Hot Mix Asphalt Plants

For Office Use Only:

Permit Number: _____

Reviewed by: _____ Date: _____

- ☐ Complete
- ☐ Incomplete
- ☐ Does Not Qualify (Specify) : _____

For questions regarding this permit application, contact ADEC at (907) 269-7577 in Anchorage or (907) 451-5173 in Fairbanks.

To obtain a GP3 or 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, Suite 249
Anchorage, AK 99501

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

Certification

In accordance with 18 ACC 50.205, certification of this application is required.

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 *Date*

_____
Printed Name

_____
Title

Permittee/Owner Applying for Permit _____

Plant Name _____

Contact Name: _____ Phone No.: _____

Current or Previous Permit No. (if applicable): _____

Check this box if the asphalt plant has not been previously permitted in the State of Alaska: ☐

Section 1 General Information

1. Type of Application (see Item 3 below to determine Type):
Check only one pair:

☐ Application for Title I Minor General Permit 3 (MG3) for an Asphalt Hot Mix Plant with a potential-to-emit (PTE) more than 10 tons, but less than 100 tons of a regulated pollutant per year.

☐ A check for the applicable permit administration fee of $857.32 per 18 AAC 50.400(g) is included.

_____

OR:

☐ Application for Title V Major General Permit 3 (GP3) for an Asphalt Hot Mix Plant (with or without rock crusher) with a PTE of 100 tons or more of a regulated pollutant per year.

☐ A check for the applicable permit administration fee or $2,402.00 per 18 AAC 50.400(g) is included.

2. Potential to Emit (PTE)

Determine your stationary source's PTE following the instructions in *Attachment 1*, using **3,650** for the variable "Hours of Operation".

Table A Potential to Emit (PTE)

Pollutant	Asphalt Plant	Diesel Engine(s)	Rock Crusher (if Applicable) [1]	TOTAL
NO_X				
CO				
SO_2				
PM-10				
VOC				

3. Qualifying Criteria

Sources requiring a Title I Minor General Permit 3 for Hot Mix Asphalt Plant:

- A Hot Mix Asphalt Plant with a rated capacity of at least five tons per hour of product;
- An emission unit with a rated capacity of 10 million Btu or more per hour in a sulfur dioxide special protection area;
- An Hot Mix Asphalt Plant with a PTE that is greater than
    - 15 tpy but less than 100 tons per year (tpy) of PM-10;
    - 40 tpy but less than 100 tpy of sulfur dioxide;
    - 40 tpy but less than 100 tpy of nitrogen oxides; or
    - 0.6 tpy of lead.

Sources requiring a Title V Major General Permit 3 for Hot Mix Asphalt Plant:

- A Hot Mix Asphalt Plant having a PTE greater than 100 tpy of a regulated air contaminant;
- A Hot Mix Asphalt Plant emitting or having the PTE 10 TPY or more of a hazardous air pollutant (HAPs) or 25 TPY or more, in the aggregate, of two or more HAPs. The Department has not provided information to calculate the PTE for HAPs as generally, asphalt plants do not emit HAPs in sufficient quantities to trigger these thresholds.

Alaska law allows ADEC to issue a Title V general operating permit under AS 46.14.210 and a Title I general operating permit under AS 46.14.211 for similar types of operations. Generally, Operators prefer general operating permits because of their relative low cost as compared to stationary source specific permits.

Your Hot Mix Asphalt Plant will require either a baghouse and/or venturi wet scrubber to control particulate emissions (PM). Asphalt facilities constructed, modified or reconstructed after June 1973 are subject to NSPS Subpart I.

[1] See Section 5 for restrictions of GP3 permit coverage for rock crushers

By completing this application, the owner or operator acknowledges that the Hot Mix Asphalt Plant operated under this permit is required to be operated with a control device to control PM emissions.

If the stationary source operates in the Unalaska or St. Paul areas, the stationary source must burn a fuel oil with a sulfur content no more than 0.075% Sulfur by weight. These areas have been designated as special protection areas (see

Section 11 for additional information).

4. Type of Hot Mix Asphalt Plant
Check one:

- ☐ This application is for a continuous drum Hot Mix Asphalt Plant.
- ☐ This application is for a batch dryer Hot Mix Asphalt Plant.

5. Diesel Generator
Check one:

- ☐ This Hot Mix Asphalt Plant will utilize a stationary diesel generator/s to provide electrical power.
- ☐ This Hot Mix Asphalt Plant will utilize a diesel generator/s to provide electrical power but the diesel generator/s meets the definition of a nonroad engine (see *Attachment 2*) and will not remain at the same location for more than 12 months.
- ☐ This Hot Mix Asphalt Plant will utilize highline power and will not have a diesel generator.

6. Rock Crusher (Sources applying for an MG3, which also operate rock crusher(s), will need to obtain a separate Minor General Permit 9 (MG9) for rock crushers)

The GP3 may also be used for rock crushing operations capable of processing at least five tons per hour of untreated material as long as the crushing operations are located on a contiguous or adjacent property to the hot mix asphalt plant, and are under common control of the same person (or persons under common control), belonging to a single major industrial grouping, with a combined potential-to-emit of 100 tons per year or more of any regulated pollutant. A regulated pollutant has the meaning given in 40 C.F.R. 71.2 (see *Attachment 2*).

Check as applicable:

- ☐ A rock crusher will be co-located with the Hot Mix Asphalt Plant as described above.
- ☐ The rock crusher and associated equipment will use separate diesel engine(s) from the asphalt plant's to operate.

7. Disqualifying Criteria

a. Does the stationary source have a stationary source-specific requirement?

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.

☐ **Yes** (you do not qualify for this permit, contact ADEC) ☐ **No**

b. For diesel engine(s) larger than 500kW (~650 hp): Is the stack(s) at least 12 feet high?

If engines have exhaust stacks less than 12 feet high as measured from the ground, the stationary source might violate the ambient air quality standards. The engine exhausts must be unrestricted and exit the stack vertically. The department requires stationary sources with diesel engine exhaust stacks that do not have stack outlets higher than 12 feet from the ground or that have restricted flow to obtain a stationary source specific operating permit. Obtaining this permit will require an ambient air modeling demonstration.

☐ **N/A** ☐ **Yes** ☐ **No** (you do not qualify for this permit; contact ADEC)

c. **Title V GP3 Applicant Only:** Does the stationary source conduct have a crusher with mechanically induced air flow?

☐ **Yes** (you do not qualify for this permit; contact ADEC) ☐ **No**

d. **Title V GP3 Applicant Only:** Does the stationary source have a source subject to a federal emission standard in 40 CFR 61 or 63?

☐ **Yes** (you do not qualify for this permit; contact ADEC) ☐ **No**

e. Does the stationary source have a gas turbine?

☐ **Yes** (you do not qualify for this permit; contact ADEC) ☐ **No**

f. Does the stationary source have an incinerator?

☐ **Yes** (you do not qualify for this permit; contact ADEC) ☐ **No**

g. Will the stationary source follow the location considerations specified under Section 2?

☐ **Yes** ☐ **No** (you do not qualify for this permit; contact ADEC)

8. Alaska Coastal Management Plan

Sources that will operate within the boundaries of a coastal district shall comply with Coastal District Plan Designated Area Enforceable Policies in accordance with 11 AAC 114.250. For more information see: http://www.alaskacoast.state.ak.us/Explore/Tour.html

☐ This stationary source will not be located in a coastal district. Should the stationary source be relocated to a coastal district, the owner/operator shall comply with the enforceable policies of that coastal district.

☐ This stationary source will be located within the boundaries of a coastal district and will comply with all enforceable policies of that district.

Provide the name of the coastal district the stationary source will be located in:

_____

Section 2 Location Considerations

When applying for an application to operate a Hot Mix Asphalt Plant, the applicant should consider the permit conditions relating to selecting an operating site for the Hot Mix Asphalt Plant. The permit condition in the GP3 related to the location of the Hot Mix Asphalt Plant is reproduced here in its entirety. The MG3 contains similar provisions.

The stationary source shall comply with these terms when operating the Hot Mix Asphalt Plant under this general permit.

19. General Requirements. In order to protect the State ambient air quality standards and increments listed in 18 AAC 50.010 and 18 AAC 50.020, the Permittee shall:

[18 AAC 50.110, 5/26/72, 18 AAC 50.201 & 50.010, 10/1/04]

19.1 not operate the Asphalt Plant or a diesel engine used to provide electrical or mechanical power[2] to the Asphalt Plant, within 330 feet of the nearest residential or other occupied structure;[3]

19.2 not operate for more than *two* construction seasons an Asphalt Plant, or a diesel engine used to provide elecrical or mechanical power to the Asphalt Plant, that is located:

a. within 800 feet of the nearest residence or other occupied structure; or

b. within 1,100 feet of the nearest residence or other occupied structure if the residence or structure is located on terrain that is more than 50 feet above any ground level of the Asphalt Plant aggregate drier or drum mixer.

19.3 give adequate consideration to siting issues as described in the note below when operating or changing locations of a crusher permitted to operate under this permit.

19.4 Report as set out by condition 69 any deviations from conditions 19.1 through 19.3.

And for Rock Crushers (for GP 3 Applicants Only):

37. Ambient Air Quality Protection, General Requirements. In order to protect the State ambient air quality standards and increments listed in 18 AAC 50.010 and 18 AAC 50.020, the Permittee shall

[18 AAC 50.110, 5/26/72, 18 AAC 50.201 & 50.010, 10/1/04]

37.1 not operate the Rock Crusher or a diesel engine used to provide electrical or mechanical power to the Rock Crusher, within 400 feet of the nearest residential structure;

[2] This does not include wheeled or tracked equipment powered by a diesel engine such as front end loaders.
[3] For purposes of complying with conditions 19.1 and 19.2 (and conditions 37.1 and 37.2 if applicable), all distances shall be measured from the air emission release point, or material handling activity, that is located nearest to a residential/occupied structure to the nearest face of the residence/structure.

37.2 not operate for more than *two* construction seasons a Rock Crusher, or a diesel engine used to provide elecrical or mechanical power to the Rock Crusher, that is located within 1,000 feet of the nearest residence or other occupied structure; and

37.3 give adequate consideration to siting issues as described in the note under condition 19.3 when operating or changing locations of a crusher permitted to operate under this permit.

[18 AAC 50.040(j)(3) 7/25/08, 18 AAC 50.326(j)(1) 12/1/04, & 50.346(b)(1), 11/9/08]
[18 AAC 50.410, 12/14/06 and 18 AAC 50.420, 1/29/05]
[40 C.F.R. 71.5(c)(3)(ii), 7/2/07]

NOTE: *The above setback distances are minimum requirements. Permittees should give adequate consideration to local siting issues which may exist within a given area. Poor siting can lead to public complaints regarding dust impacts and/or impacts from other air pollutants. The Department does investigate these types of public complaints.*

Section 3 Stationary source Identification Information

(see next page for instructions)

Stationary Source Name _____
Stationary Source Location
UTM Coordinates or _____
Latitude/Longitude _____
Physical Address _____

Stationary Source Contact Person _____
Mailing Address _____
Telephone Number _____

Legal Owner _____
Mailing Address _____
Telephone Number _____

Permittee (*if different from owner*) _____
Mailing Address _____
Telephone Number _____

Responsible Official _____
Mailing Address _____
Telephone Number _____

Stationary Source's Consultant (*if applicable*) _____
Mailing Address _____
Telephone Number _____

Designated Agent _____
Mailing Address _____
Telephone Number _____

Billing Contact Person _____
Mailing Address _____
Telephone Number _____

Individuals from your organization, authorized to incur fees (please include consultants, if applicable) _____

Major SIC Codes:
____ 2951 Asphalt Paving Mixtures and Blocks
____ 1422 Crushed and Broken Limestone
____ 1423 Crushed and Broken Granite
____ 1429 Crushed and Broken Stone, Not Elsewhere Classified
____ 1442 Construction Sand and Gravel
____ 1446 Industrial Sand
____ Other: _____

Instructions for Section 3:

Stationary Source Name: The name of the stationary source.
Stationary Source Location: Provide either the UTM coordinates or the latitude and longitude where the Asphalt Plant will operate.

UTM Coordinates: The stationary source's Universal Transverse Mercator (UTM) coordinates.

Latitude/Longitude: The stationary source's Latitude and Longitude coordinates.

Physical Address: The stationary source's address. 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 Person: The name of the individual responsible for the stationary source's day-to-day operations.
Mailing Address: The business address where the person receives mail.
Telephone Number: The contact person's telephone number.

Legal Owner: The stationary source's legal owner. The legal owner could be either a person or a company.
Mailing Address: The owner's mailing address.
Telephone Number: The owner's telephone number.

Permittee: The entity applying for the permit. This can be either the owner or the operator of the Hot Mix Asphalt Plant.
Mailing Address: The Permittee's mailing address.
Telephone Number: The Permittee's telephone number.

Responsible Official: See *Attachment 2* definitions.
Mailing Address: The Responsible Official's mailing address.
Telephone Number: The Responsible Official's telephone number.

Stationary Source's Consultant Name: If applicable, the name of the business or entity that prepared the application and/or prepares reports.
Mailing Address : The consultant's mailing address.
Telephone Number: The consultant's telephone number.

Designated Agent: The designated agent's name. 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.
Mailing Address: The designated agent's mailing address.
Telephone Number: The designated agent's telephone number.

Billing Contact: The billing contact's name.
Mailing Address: The billing contact's mailing.
Telephone Number: The billing contact's telephone number.

Individuals Authorized to Incur Fees – The department charges a fee for staff time, per 18 AAC 50.400 (m). Staff time includes answering questions, working on applications, and issuing permits. List any individual with your organization that you authorize to incur department fees. Please include any consultants that you want the Department to work with.

SIC Codes: Include the Major SIC code that applies to the entire stationary source.

Section 4 Emission Unit Information

Only the equipment listed in this application is authorized to be operated by the Permittee upon receiving the authority to operate, under the General Permit No. 3 or the Minor General Permit No. 3. Replacement of equipment or changes to the status of the listed equipment may require an amendment to your application or other permitting actions. Consult with Department personnel when adding or changing equipment.

NOTES:

** The Department encourages the Permit Applicant to provide the information marked with a double asterisk **(**).** That information, however, is not required for the Department to process the application.

* Items marked with a single asterisk **(*)** are reported to US EPA in the National Emissions Inventory

Dryer/Drum:

Is this Hot Mix Asphalt Plant a Dryer batch processing unit or a Drum continuous processing unit?

Dryer/Drum (circle one)

For the purpose of this permit application, Asphalt Hot Mix 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 Hot Mix Plants with a drum proportion the mix by a continuous volumetric proportion system and mixes the asphalt oil and aggregate in the drum.

Make of asphalt drum/dryer _____

Model # of asphalt drum/dryer _____

Serial # of asphalt drum/dryer** _____

Year of manufacture _____ Portability Yes/No (circle one)

Primary Burner: Size **_____ Btu/hr Chamber Size** _____ cubic feet

Maximum fuel feed **_____ gallon/hr

Fuel type natural gas/propane/diesel/other (specify) _____

Maximum rated capacity of asphalt production (tons per hour) _____

Control Equipment (check boxes that apply and complete the required information)

Primary dust collector

- ❑ Cyclone _____ particle size removed
- ❑ Knockout Box (settling chamber) _____ particle size removed
- ❑ Other (specify) _____ particle size removed _____

Secondary dust collector

- ❑ Baghouse
- ❑ Scrubber

Make # _____

Model # _____

Serial # _____

Year of manufacture _____ Capture efficiency * _____ %

Control efficiency * _____% Efficiency determined by _____

Significant operating parameters and set points _____

_____

Baghouse/Scrubber exhaust stack height* _____ Stack diameter* _____

Exit gas temp* _____ Exit gas velocity* _____

Actual exit gas flow rate*_____ Data source _____
(Engineering data, Source test, Vendor data)

Location
(Note: any time the asphalt stationary source is moved, the new location must be provided using the application addendum included in the permit)

Latitude _____ Longitude _____or

UTM Coordinates: Zone _____ Northing _____ Easting _____

Datum _____

Electrical Power Generation for Asphalt Hot Mix Plants

Make _____ Model # _____

Serial # _____ Year of Manufacture _____

Portability Yes/No (circle one)

Is the diesel generator Stationary or Nonroad? Yes/No (circle one)

Design capacity* _____ hp, kW, MW

Maximum nameplate capacity* _____ MW

Maximum fuel rate _____ gal/hr or MMBtu/hr
(circle one)

Secondary Generator

Make # _____ Model # _____

Serial # _____ Year of Manufacture _____

Is the diesel generator Stationary or Nonroad?

Design capacity* _____ hp, kW, MW

Maximum nameplate capacity* _____ MW

Maximum fuel rate _____ gal/hr

Diesel Engines for Rock Crusher/s

Make # _____ Model # _____

Serial # _____ Year of Manufacture _____

Is the diesel engine Stationary or Nonroad?

Design capacity* _____ hp, kW, MW

Maximum nameplate capacity* _____ MW

Maximum fuel rate _____ gal/hr

If you have more than one diesel engine providing power to rock crushers, provide the above information as an attachment to the application.

Other Equipment

- ❑ Material handling devices such as:
  - ❑ Conveyors,
  - ❑ Loaders,
  - ❑ Bins,
  - ❑ Elevators,
  - ❑ Screens, or
  - ❑ Chutes
- ❑ Asphalt cement heaters (fuel fired),
- ❑ Asphalt oil heaters (fuel fired),
- ❑ Silo heaters (fuel fired),
- ❑ Insignificant sources,

Other

_____

_____

Section 5 Rock Crushers

The MG3 and your rock crusher:

The minor general permit for asphalt facilities does not incorporate provisions for operation of a rock crusher. Asphalt facilities operating a Hot Mix Asphalt Plant under the MG3 will need to apply for a separate permit to operate a rock crusher.

The GP3 and your rock crusher:

The general permit for Title V sources incorporates provisions for the operation of a rock crusher and associated equipment. Therefore, a rock crusher operated under the GP3 shall comply with the terms and conditions of the permit to include location, monitoring, recordkeeping, and reporting.

Electrical power for the operation of the rock crusher may be from a separate diesel generator than the diesel generator that provides power to the asphalt plant. The generator must be included in the permit application and included in the stationary source's PTE calculations.

A public access control plan must be included with the permit application. The plan must contain a topographic map (or maps) that clearly shows the crusher and the surrounding 20 mile radius, including road-ways and any permit-related stationary source/areas; boundaries that are consistent with the applicable land owner's authorization to preclude public access from the area within the boundaries; defined methods of establishing and maintaining the boundary, such as physical barriers, surveillance and the posting of strategically located warning signs (provide size, wording, and inspection/repair schedule); the date of the Access Plan; and the procedure for approaching members of the public who have crossed the ambient air boundary.

Crusher Source List

Please identify any of the following equipment that makes up your rock crushing operation by placing an "x" in the box, and filling in any requested information. *Do not include any conveyors, generators, or other equipment that are part of the Hot Mix Asphalt Plant and listed in Section 4. If additional room is needed to complete the emission inventory of your rock crusher operation, please attach the additional information to the application.*

☐ Crushers (*list all initial crushers regardless of size or age)*

Equipment Id. _____Rated capacity _____ tons per hour Date built:_____
Equipment Id. _____Rated capacity _____ tons per hour Date built:_____
Equipment Id. _____Rated capacity _____ tons per hour Date built:_____
Equipment Id. _____Rated capacity _____ tons per hour Date built:_____
Equipment Id. _____Rated capacity _____ tons per hour Date built:_____

☐ Screening Operations

Equipment Id: _____ Date built: _____
Equipment Id: _____ Date built: _____
Equipment Id: _____ Date built: _____
Equipment Id: _____ Date built: _____
Equipment Id: _____ Date built: _____
Equipment Id: _____ Date built: _____

☐ Belt Conveyors

Equipment Id: _____ Date built: _____
Equipment Id: _____ Date built: _____
Equipment Id: _____ Date built: _____
Equipment Id: _____ Date built: _____
Equipment Id: _____ Date built: _____
Equipment Id: _____ Date built: _____

☐ Bucket Elevators

Equipment Id: _____ Date built: _____
Equipment Id: _____ Date built: _____
Equipment Id: _____ Date built: _____
Equipment Id: _____ Date built: _____
Equipment Id: _____ Date built: _____

☐ Storage bins

Equipment Id: _____ Date built: _____

Equipment Id: _____ Date built: _____

Equipment Id: _____ Date built: _____

Equipment Id: _____ Date built: _____

Equipment Id: _____ Date built: _____

Equipment Id: _____ Date built: _____

☐ Stationary fuel storage tanks

Date Installed_____ Capacity_____(gallons)

Date Installed_____ Capacity_____(gallons)

Nonmetallic Mineral Processing Facilities Subject to NSPS Subpart OOO (Rock Crushers and Conveying Equipment)

A processing facility is any combination of equipment used to crush or grind any non-metallic mineral including:

- Crusher or Grinding mill
- Screening operation
- Bucket elevator
- Belt conveyors and belt conveyor transfer points
- Storage bin

A Subpart OOO processing facility is a facility that:

- Is constructed, reconstructed (see 40 CFR 60.15 for specific definition), or modified after August 31, 1983;
- Has a cumulative rated initial grinding capacity larger than 150 tons per hour for a portable plant or 25 tons per hour for a fixed plant.

Processing facilities that are subject to NSPS Subpart F or I are excluded from Subpart OOO.

Subpart OOO Source Information

Information to determine Subpart OOO applicability.

1. Does your stationary source have initial crushers with a cumulative rating larger than 150 tons per hour for a portable plant or 25 tons per hour for a fixed plant?
   □ Yes □ No

2. Do you have any crushing equipment[4] constructed, reconstructed[5], or modified after August 31, 1983?
   □ Yes □ No
   If you answered yes to both questions, your rock crusher is subject to NSPS Subpart OOO.

3. Are any conveyor transfer points or other sources of particulate matter emissions enclosed in a building?
   □ Yes □ No

4. Does any structure have mechanically induced airflow to exhaust particulate emissions?
   □ Yes □ No

5. Is any equipment in your rock crushing process exhausted to a baghouse, cyclone, or wet scrubber (excluding the drum or dryer)?
   □ Yes □ No

If you answered yes to questions 3 – 5, you do not qualify for the general permit and will need to consult with the Department for a Title V Operating Permit.

[4] Crushers, grinding mills, screening operations, bucket elevators, belt conveyors, bagging operations, storage bins, and enclosed trucks or railcar loading stations are listed in 40 C.F.R. 60.670 as crushing equipment.
[5] See the definition in 40 CFR 60.673

Section 6 Emissions Fees

The Permittee is required to pay to the Department an annual emission fee based on the Stationary Source's assessable emissions for each year it is subject to this permit. The emission fee is assessed per ton for each air pollutant for which projected emissions are 10 tons per year (tpy) or greater, except as limited in AS 46.14.250(e). Applicants must include an estimate for the emissions from the stationary source with this application.

Emission fees are assessed from July 1st through the following June 30th for each year.

The quantity for which fees will be assessed will be the lesser of a) the stationary source's assessable PTE measured in tpy or b) the stationary source's projected annual rate of emissions (term used in AS 46.14.250), that will occur from July 1 to the following June 30.

Use the equations and methodology in *Attachment 1* as a guide for completing the emissions fee estimates in *Table B*. 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. If projected annual rate of emissions is unknown, complete *Table B* with the PTE values from *Table A*.

Table B Emissions Fee Estimate

Pollutant	Asphalt Plant	Diesel Engine(s)	Rock Crusher (if Applicable) [6]	Assessable Emissions
NO_X				
CO				
SO_2				
PM-10				
VOC				

Add the pollutant from each column (Asphalt Plant, Diesel Generator(s) and Rock Crusher(s)) of the Emission Reporting and Emission Fee Estimate form together. If the total equals or exceeds 10 tpy, enter that amount in the column labeled "Assessable Emissions".

[6] See item 5 in this Section for restrictions of GP3 permit coverage for rock crushers

Section 7 Other Documents Required

Along with this application, please include:

- Copies of the latest particulate matter source test results for the Hot Mix Asphalt Plant or a manufacturer's certification that the Hot Mix Asphalt Plant will meet the grain loading standard of 0.04 gr/dscf for Hot Mix Asphalt Plant constructed or modified after June 1973, or 0.05 gr/dscf for asphalt facilities constructed before June 1973.
- For asphalt facilities that are used but new to the State, a source test that shows the Hot Mix Asphalt Plant meets the grain loading standard of 0.04 gr/dscf for asphalt facilities constructed or modified after June 1973, or 0.05 gr/dscf for asphalt facilities constructed before June 1973 or a certification from the manufacture, that the stationary source will meet the appropriate grain loading standard.
- Stationary source process diagrams that identify each emission point and control device and stack heights.
- Operation and Maintenance Plan for the Hot Mix Asphalt Plant (see Section 10 for suggested content)

Section 8 Insignificant Emission Units

Identify insignificant emission units at your stationary source. Insignificant emission units are based on emission rate, category, size and production rate basis and on a case-by-case basis. Please see regulations 18 AAC 50.326(d) – (i) for additional information.

- ❑ fuel burning equipment, not including internal combustion engines, with a rated capacity less than 4,000,000 Btu/hr burning natural gas, butane, propane, or LPG;

- ❑ fuel burning equipment, not including internal combustion engines, with a rated capacity less than 1,700,000 Btu/hr burning kerosene, No. 1, or No. 2 fuel oil;

- ❑ Other _____.

  Other _____.

  Other _____.

  Other _____.

  Other _____.

Section 9 Compliance Certification

This section is for major sources applying for a renewal to operate under the GP3. If this is an initial application or your source is classified as a minor source you do not need to complete the compliance certification of this section.

Any stationary source submitting an application for renewal must certify that it is in compliance with the terms and conditions of the general permit at the time the application is submitted.

To evaluate your stationary source's compliance status, complete the Annual Compliance Certification (ACC) in the General Permit 3 under which you operated and attach it to the application. The compliance certification shall encompass the period from January 1 of the current year until the date the application is signed. If the source has not operated during the compliance period, include the previous year's ACC.

A source submitting an application that is not in compliance with the terms and conditions of the permit will not be issued an authorization to operate under the GP3 until a compliance plan has been implemented to bring the source back into compliance. (18 AAC 50.345(c)(3)). Please contact the Department at 907-451-5173 for additional direction on how to proceed.

If a stationary source has always been in compliance with each term and condition of the permit, the source is determined to be "In Compliance" and should mark "Continuous" compliance.

If a stationary source has operated out of compliance for a specific condition of the permit but has corrected the noncompliance issue, the source is determined to be" in compliance" but the source would mark "Intermittent" compliance.

If a stationary source is not currently in compliance with a condition of the permit, the source's compliance status for that condition is "not in compliance".

Check One:

- ☐ This application is for an existing source. (Complete and attach the Compliance Certification as described above.)
- ☐ The application is for an initial authorization to operate under the general permit.
- ☐ The application is for a minor source applying to operate under the MG3.

Section 10 Operations 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, 11/9/08] listed in the GP3 and MG3.

The O&M Plan should be updated on a periodic basis and whenever the stationary source has a change in operations and 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
C. Temperature at baghouse inlet
D. Dust level in hopper
E. Discharge pressure at air compressor for bag cleaning in psig
F. Screw conveyor motor amps meter
G. 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, repair 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
C. Scrubbing water inlet and outlet temperature, °F and pressure, psig
D. Water Pump motor current draw, amps or water flow rate
E. 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

Inspect the mist eliminator, including internals, for proper operation, plugging and corrosion. 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

Check if applicable:

☐ Latest O&M Plan attached

Section 11 Special Sulfur Dioxide Protection Areas

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

The Unalaska area, the land and water areas within a 3.4-mile radius of the intersection of 53° 53' 4" N latitude and 166° 32' 11" W longitude; and

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 maps in *Attachment 3* show the areas defined as special protection areas for sulfur dioxide.

Areas defined as special protection areas for sulfur dioxide have the following restrictions on operation:

1) The stationary source must use diesel fuel with a sulfur content of ≤0.075% by weight or use natural gas.
2) Diesel electric generators or other diesel engines may not be used. The Hot Mix Asphalt Plant must operate using high line power.

Check if applicable:

☐ The asphalt plant will be located a special protection area for sulfur dioxide.

Attachment 1
Pollutant Emissions Calculation Methodology

The methodology for calculating pollutant emissions from emission units from asphalt plants and rock crushers shall be based on enforceable test methods as described in 18 AAC 50.220, material balance calculations, emission factors from EPA's publication AP-42, *Compilation of Air Pollutant Emission Factors, Volume I: Stationary Point and Area Sources, Fifth Edition with Supplements A – E*, as amended through September 1999 adopted by reference in 18 AAC 50.035; or other methods and calculations approved by the Department.

The Permittee may use alternative calculation methodologies provided the Department approves in writing such calculation methodology. The Permittee may also use emission factors based upon the latest source test provided the source test has been approved by the Department. The calculations shall be recorded and kept on site for a minimum of five years, and the calculations shall clearly reflect the emission factors used. If emission factors based upon manufacturer's data are used, attach the manufacturer's data to the calculations.

Depending on whether the calculation performed to complete *Table A* (potential-to-emit) or *Table B* (Assessable Emissions), report calculated values accordingly (i.e. report calculated values for the asphalt plant under the column labeled "Asphalt Plant").

If your facility operates more than one diesel engine, add the totals for all the diesel engines together before entering them in the appropriate column. If your facility does not use a diesel engine but uses highline electrical power, mark the blocks as Uses Highline Power.

The following exemplifies potential-to-emit emission calculations using EPA AP-42 emission factors:

Air Emissions from the Asphalt Plant:

Calculate the emissions from the Asphalt Plant for NO_X, CO, SO_2, PM-10, and VOC in tons per year (tpy) using Equation 1 below. For PTE calculations, use 3,650 for the variable "Hours of operation".

Air Emissions from Stationary Diesel Engine Generator/s:

Calculate the emissions from the diesel engine generator/s for NO_X, CO, SO_2, PM-10, and VOC in tpy using either Equation 2 or Equation 3 below. For PTE calculations, use 3, 650 for the variable "Hours of operation".

Air Emissions from Rock Crushers:

Calculate the emissions from rock crushing equipment for PM-10 in tons per year (tpy) using Equation 4 below. For PTE calculations, use 3, 650 for the variable "Hours of operation".

Equation 1
Emissions = (EF x (Hours of operation * RC)) / lbs per ton

Where:
EF = pollutant emission factor in lb/ton of asphalt processed
RC = rated capacity of Asphalt Plant in tons per hour
Hours of operation = hours of operation of Asphalt Plant
lbs per ton = 2,000
Emissions = (EF x (hrs * RC)) / 2,000 = tons per year

Emission Factors for Batch Mix Hot Mix Asphalt Plants (lb/ton of asphalt processed)

Process	CO	NO_X	SO_2	PM-10[7]	PM-10[8]	PM-10[9]	VOC
Natural gas-fired dryer, hot screens, and mixer	0.40	0.025	0.0046	4.5	0.027	0.14	0.0082
No. 2 fuel oil-fired dryer, hot screens, and mixer	0.40	0.12	0.088	4.5	0.027	0.14	0.0082

Emission factor units are lb per ton of hot mix asphalt produced. The preceding emission factors were compiled from AP-42, 5th Edition, Tables 11.1-1, 11.1-5, & 11.1-6.

Air Emission Factors from Drum Mix Hot Mix Asphalt Plants (Continuous)

Process	CO	NO_X	SO_2	PM-10[7]	PM-10[8]	PM-10[9]	VOC
Natural gas-fired dryer, hot screens, and mixer	0.13	0.026	0.0034	6.5	0.023	0.045	0.032
No. 2 fuel oil-fired dryer, hot screens, and mixer	0.13	0.055	0.011	6.5	0.023	0.045	0.032

Emission factor units are lb per ton of hot mix asphalt produced. The preceding emission factors were compiled from AP-42, 5th Edition, Tables 11.1-3, 11.1-7, & 11.1-8.

Equation 2
Emissions = ((EF x Hp)* Hours of operation) / lbs per ton

Where:
EF = emission factor
HP= horse power of unit
Hours of operation = hours of asphalt production
lbs per ton = 2,000

((EF * hp)* hrs) / 2,000 = tons per year

[7] Uncontrolled emissions. Note: uncontrolled emission factors are provided as a reference only. At no times are facilities allowed to operate the hot mix asphalt plant without a control device i.e. baghouse or wet scrubber.
[8] Emissions controlled with a fabric filter (baghouse)
[9] Emissions controlled with a wet scrubber. Emission factor of 0.14 corresponds to total PM under AP-42. Upon approval from the Department, Permittee may use alternative emission factors including but not limited to those provided by the equipment manufacturer or data derived from a recent source test.

Equation 3

Emissions = ((EF x MMBtu) * Hours of operation) / lbs per ton

Where:
EF = emission factor
MMBtu = Manufacturer's rated capacity
Hours of operation = hours of asphalt production
lbs per ton = 2,000
Emissions = ((EF x MMBtu) * hrs) / 2,000 = tons per year

Emission Factors for Diesel Engines less than or equal to 600 hp

Pollutant	CO	NO_X	SO_2	PM-10	VOC
Emission factor (lb/hp-hr) power output	6.68 E -03	0.031	2.05 E -03	2.20 E -03	2.47 E-05
Emission factor (lb/MMBtu) fuel input	0.95	4.41	0.29	0.31	0.35

The preceding emission factors were compiled from AP42, 5th Edition, Table 3.3-1.

Emission Factors for Large Diesel Engines more than 600 hp Diesel Fuel, Uncontrolled Emissions

Pollutant	CO	NO_X	SO_2[10]	PM-10	VOC
Emission factor (lb/hp-hr) power output	5.5 E-03	0.024	8.09 E-03S_1	0.0007	7.05 E-04
Emission factor (lb/MMBtu) fuel input	0.85	3.2	1.01S_1	0.1	0.09

The preceding emission factors were compiled from AP42, 5th Edition, Table 3.4-1.

Emission Factors for Large Diesel Engines more than 600 hp Diesel Fuel, Controlled Emissions[11]

Pollutant	CO	NO_X	SO_2[10]	PM-10	VOC
Emission factor (lb/hp-hr) power output	5.5 E-03	0.013	8.09 E-03S_1	0.0007	7.05 E-04
Emission factor (lb/MMBtu) fuel input	0.85	1.9	1.01S_1	0.1	0.09

The preceding emission factors were compiled from AP42, 5th Edition, Table 3.4-1.

[10] Assumes that all sulfur in the fuel is converted to SO_2. S_1 = % sulfur in fuel oil. For example, if sulfur content is 1.5%, S = 1.5.
[11] References 8-26. Controlled NO_X is by ignition timing retard.

Emission Factors for Large Diesel Engines more than 600 hp Duel Fuel, Uncontrolled

Pollutant	CO	NO_X	SO_2[10]	PM-10	VOC
Emission factor (lb/hp-hr) power output	7.5 E-03	0.018	4.06 E-04S_1 +9.57E-03S_2	ND	5.29 E-03
Emission factor (lb/MMBtu) fuel input	1.16	2.7	0.05S_1 + 0.895S_2	ND	0.8

The preceding emission factors were compiled from AP42, 5th Edition, Table 3.4-1.

Note: AP-42 did not list an emission factor for controlled NO_X emissions for Duel-Fired Large Diesel Engine.

Equation 4

Emissions = (EF x (Hours of operation * RC)) / lbs per ton

Where:
EF = pollutant emission factor in lb/ton of rock crushed processed
RC = rated capacity of Rock Crusher in tons per hour
Hours of operation = hours of operation of Rock Crusher
lbs per ton = 2,000
Emissions = (EF x (hrs * RC)) / 2,000 = tons per year

Emission Factors for Crushed Stone Processing (lb/ton of stone crushed)

	Primary and Secondary Crushing	Tertiary Crushing	Fines Crushing	Screening	Fines Screening	Conveyor Transfer Point	Aggregate Handling and Storage Piles(*)
PM	None	0.0054	0.0390	0.025	0.30	0.0030	0.05
PM-10	None	0.0024	0.0150	0.0087	0.072	0.00110	0.05

Emission factor units are lb per ton of stone processed. The preceding emission factors were compiled from AP-42, 5th Edition, Table 11.19.2 and Equation 1 of Section 13.2.4.

(*) This emission factor conservatively assumed 10 mph wind speed and 0.25 percent moisture content.

Attachment 2
Definitions

Regulated air pollutant means the following:

(1) Nitrogen oxides or any volatile organic compounds;

(2) Any pollutant for which a national ambient air quality standard has been promulgated;

(3) Any pollutant that is subject to any standard promulgated under section 111 of the Act;

(4) Any Class I or II substance subject to a standard promulgated under or established by title VI of the Act; or

(5) Any pollutant subject to a standard promulgated under section 112 of the Act or other requirements established under section 112 of the Act, including sections 112 (g), (j), and (r) of the Act, including the following:

(i) Any pollutant subject to requirements under section 112(j) of the Act. If the Administrator fails to promulgate a standard by the date established pursuant to section 112(e) of the Act, any pollutant for which a subject source would be major shall be considered to be regulated on the date 18 months after the applicable date established pursuant to section 112(e) of the Act; and

(ii) Any pollutant for which the requirements of section 112(g)(2) of the Act have been met, but only with respect to the individual source subject to section 112(g)(2) requirements.

[40 CFR 71.2]

Responsible official means:

(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;

[18 AAC 50.990 (93)]

Nonroad engine means:

(1) Except as discussed in paragraph (2) 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.

(2) An internal combustion engine is not a nonroad engine if:

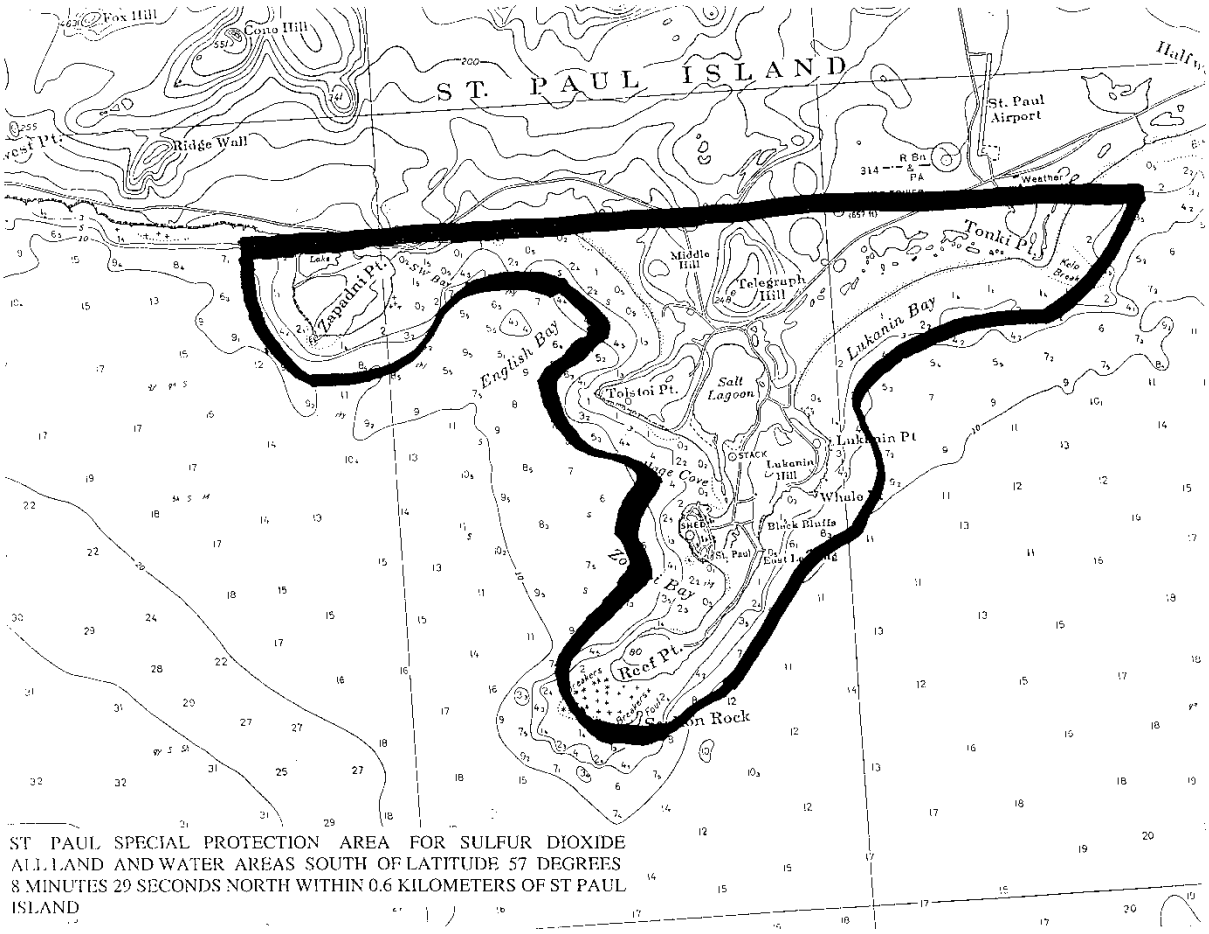
(i) the engine is used to propel a motor vehicle or a vehicle used solely for competition, or is subject to standards promulgated under section 202 of the Act; or

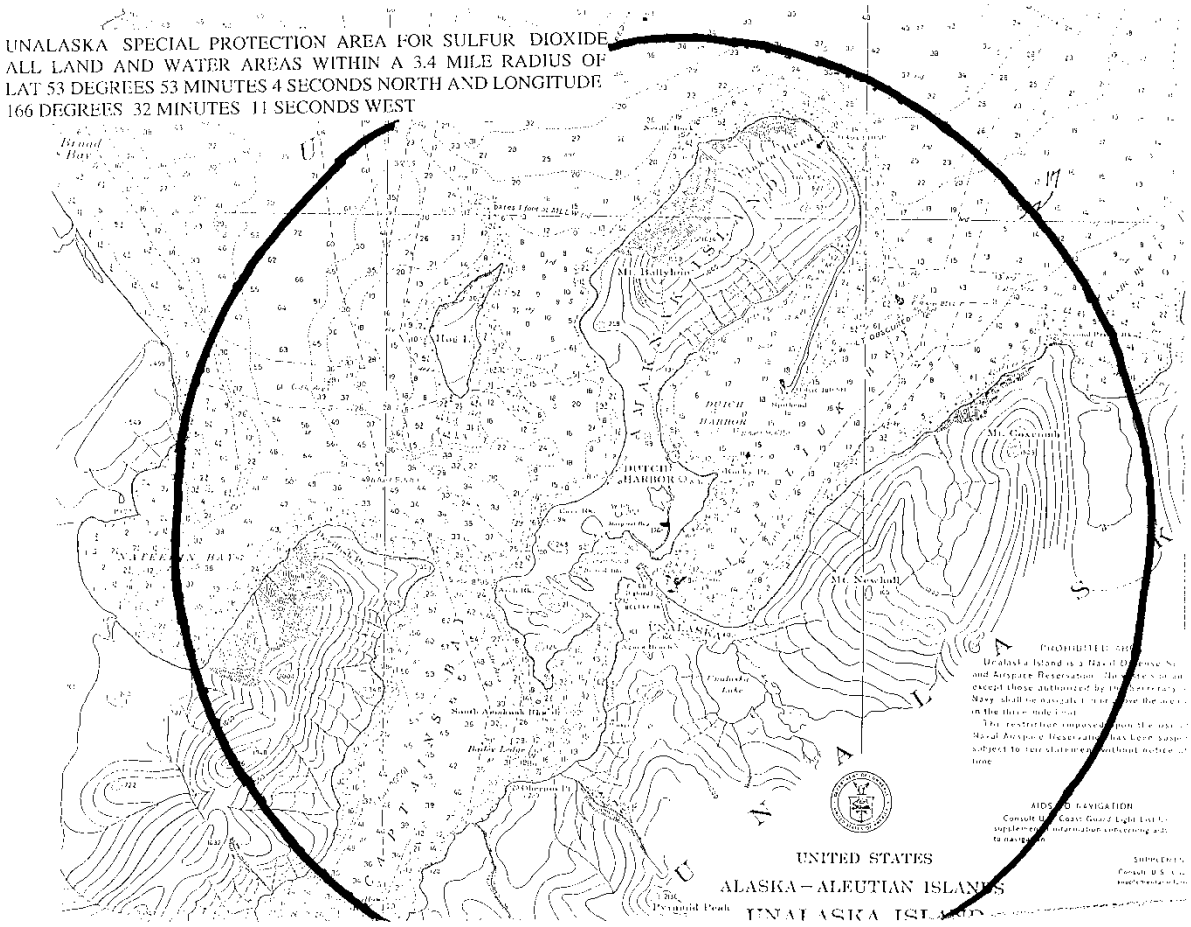
(ii) the engine is regulated by a federal New Source Performance Standard promulgated under section 111 of the Act; or

(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.

[40 C.F.R. 89.2]

Attachment 3
Special Protection Areas for Sulfur Dioxide




UNALASKA SPECIAL PROTECTION AREA FOR SULFUR DIOXIDE
ALL LAND AND WATER AREAS WITHIN A 3.4 MILE RADIUS OF
LAT 53 DEGREES 53 MINUTES 4 SECONDS NORTH AND LONGITUDE
166 DEGREES 32 MINUTES 11 SECONDS WEST
UNITED STATES
ALASKA – ALEUTIAN ISLANDS