

**DEPARTMENT OF ENVIRONMENTAL CONSERVATION
AIR QUALITY CONTROL MINOR GENERAL PERMIT**

MINOR GENERAL PERMIT 3 FOR ASPHALT PLANTS

Permit No. AQ_____MG301

Public Comment Draft – June 2, 2008

Permittee: _____

This minor general permit is to be used for construction, operation, or relocation of the asphalt plant described below, which has a rated capacity of at least five tons per hour of product (as described in 18 AAC 50.502(b)(1)), that is also classified as or part of a minor stationary source with respect to Title V permitting.

Permittee: _____

Plant name: _____

Listed Emission Units:

This minor general permit does not expire and is valid as long as the stationary source remains a minor source with respect to Title V permitting, or until the Permittee requests the permit be rescinded or until the Department terminates, modifies, reopens, or revokes and reissues the permit.

John F. Kuterbach
Manager, Air Permits Program

Section 1 Qualifying Criteria:

The stationary source approved to operate under this minor general permit is described by Standard Industrial Classification codes 1611 and 1771 and primarily produces asphalt concrete for paving. Alaska law requires operators of asphalt plants to obtain a minor permit under 18 AAC 50.502(b)(1) if the asphalt plant has a rated capacity of at least five tons per hour of product.

Exclusions

The stationary source is excluded from using this general minor permit if the following applies. However, if there is a general permit for the activities listed below, the stationary source may operate under both permits.

- ▶ The stationary source is subject to a fuel consumption limit or other stationary source-specific requirement established in a construction permit, or air quality control permit under the 18 AAC 50.400 (effective prior to 1/18/97). (This does not include a limit established because a source test was conducted at less than full rated capacity.)
- ▶ The stationary source contains
 - a rock crusher;
 - a boiler subject to any New Source Performance Standard (NSPS) 40 C.F.R. 60, Subpart Dc;
 - a fuel storage tank subject to NSPS 40 C.F.R. 60, subparts K, Ka, or Kb;
 - a source (other than an asphalt plant, crushing and grinding equipment, fuel storage tank, or boiler subject to NSPS 40 C.F.R. 60, 61, or 63;
 - a gas turbine;
 - an incinerator;
 - a source subject to any standard in 18 AAC 50.055(a) – (f) other than standards for fuel burning equipment in (a)(1), (a)(4), (b)(1), (b)(5) and (c);
 - open burning at the source any time during the permit term;
 - renovation and demolition activities at the source that would need to comply with the provision of 40 C.F.R., Part 61, Subpart M, Section 145, National Emission Standard for Asbestos, Standard for Demolition and Renovation; or
 - Recycling and emissions reduction of Class I and Class II refrigerants at the stationary source (these activities are subject to 40 C.F.R. 82, Subpart F, Section 82.150).
- ▶ The stationary source has the potential to emit more than 100 tons per year of a regulated air pollutant (i.e. is subject to Title V permitting requirements)

Permitted Sources

This permit authorizes the Permittee to operate any emission unit identified in the permit application submitted for this permit. The emission units need not be in the same immediate

location. At whatever location the equipment operates the operator must comply with the appropriate requirements for that equipment.

Permit Duration

This permit does not expire. The authority to operate remains in effect until either the Permittee requests their authority be rescinded or until the Alaska Department of Environmental Conservation (Department) terminates the authority for cause under 18 AAC 50.345(f).

Change of Ownership

If the ownership of the asphalt plant is changed, the new owners and previous owners must complete a transfer of ownership form and receive authorization to operate from the Department before the plant is operated by the new owner. The transfer of ownership form is available on the Air Permits Program web site at <http://www.dec.state.ak.us/air/ap/permit.htm>.

Alternatively, the form may be obtained by contacting the Air Permits Program staff listed under: <http://www.dec.state.ak.us/air/ap/aqmstaff.htm>.

Section 2 State Requirements

Visible Emissions Standard Requirements

1. **Visible Emissions.** For an asphalt plant¹ and all diesel engines authorized by this permit, the Permittee shall not cause or allow visible emissions, excluding condensed water vapor, to reduce visibility through the exhaust effluent by more than 20 percent averaged over any six consecutive minutes.
 - 1.1 For an asphalt plant, conduct visible emission observations, in accordance with 40 C.F.R. 60, Appendix A, Method 9 and:
 - (i) within two days of startup at a new location;
 - (ii) at least once during a 30-day operating period at the same location;
 - (iii) when the asphalt plant starts up after a shut down period of more than five days; and
 - (iv) when the asphalt plant is operating at a load typical of the maximum operation during the reporting period (this requirement does not apply to heaters and insignificant sources).
 - b. Conduct at least one set of Method 9 readings as described in condition 1.1 during each one hour run of Method 5 PM testing required in condition 8.
 - c. Record the equipment production or operating rate at the time of the Method 9 observation.
 - d. Attach all Method 9 visible emission field observation sheets to the operating report required in condition 49.
- 1.2 For a stationary diesel engine, monitor, record, and report in accordance with conditions 2, 3, and 4, respectively.
2. **Diesel Engine Visible Emissions Monitoring.** The Permittee shall observe the exhaust of any diesel engines subject to condition 1 of this permit for visible emissions using either the Method 9 Plan under condition 2.1 or the Smoke/No-Smoke Plan under condition 2.2. The Permittee may change visible-emissions plant for a source at any time unless prohibited from doing so by condition 2.3.
 - 2.1 **Method 9 Plan.** For all 18-minute observations in this plan, observe exhaust, following 40 C.F.R. 60, Appendix A-4, Method 9, adopted by reference in 18 AAC 50.040(a), for 18 minutes to obtain 72 consecutive 15-second opacity observations.
 - a. First Method 9 Observation. Observe exhaust for 18 minutes within 15 days of beginning production for each operating season or within 3 operating days

¹ In this permit, "asphalt plant" means all asphalt plant equipment (including the aggregate dryer and drum mixer, except the diesel engine generator and vehicles).

after changing from the Smoke/No Smoke Plan of condition 2.2, whichever is later.

- b. Monthly Method 9 Observations. After the first Method 9 observation, perform 18-minute observations at least once in each calendar month that the engine operates.

2.2 Smoke/No Smoke Plan. Observe the exhaust for the presence or absence of visible emissions, excluding condensed water vapor.

- a. Initial Monitoring Frequency. Observe the exhaust during each calendar day that an emission unit operates.
- b. Reduced Monitoring Frequency. After the emission unit has been observed on 30 consecutive operating days, if the source operated without visible smoke in the exhaust for those 30 days, then observe emissions at least once in every calendar month that an emission unit operates.
- c. Smoke Observed. Anytime smoke is observed, either begin the Method 9 Plan of condition 2.1 or perform the corrective action required under condition 2.3.

2.3 Corrective Actions Based on Smoke/No Smoke Observations. If visible emissions are present in the exhaust during an observation performed under the Smoke/No Smoke Plan of condition 2.2, the Permittee shall either follow the Method 9 plan of condition 2.1 or

- a. initiate actions to eliminate smoke from the source within 24 hours of the observation;
- b. keep a written record of the starting date, the completion date, and a description of the actions taken to reduce smoke; and
- c. after completing the actions required under condition 2.3a,
 - (i) take Smoke/No Smoke observations in accordance with condition 2.2
 - (A) at least once per day for the next seven operating days and until the initial 30 day observation period is completed; and
 - (B) continue as described in condition 2.2b; or
 - (ii) if the actions taken under condition 2.3a do not eliminate the smoke, or if subsequent smoke is observed under the schedule of condition 2.3c(i)(A) then observe the exhaust using the Method 9 Plan unless the Department gives written approval to resume observations under the Smoke/No Smoke Plan; after observing smoke and making observations under the Method 9 Plan, the Permittee may at any time take corrective action that eliminates smoke and restart the Smoke/No Smoke Plan under condition 2.2a.

3. Diesel Engine Visible Emissions Recordkeeping. The Permittee shall keep records as follows:

- 3.1 If using the Method 9 Plan of condition 2.1
- a. the observer shall record
 - (i) the name of the stationary source, emission unit and location, stationary source type, observer's name and affiliation, and the date on the Visible Emissions Field Data Sheet in *Section 9*;
 - (ii) the time, estimated distance to the emissions location, approximate wind direction, estimated wind speed, description of the sky condition (presence and color of clouds), plume background, and operating rate (load or fuel consumption rate) on the sheet at the time opacity observations are initiated and completed;
 - (iii) the presence or absence of an attached or detached plume and the approximate distance from the emissions outlet to the point in the plume at which the observations are made;
 - (iv) opacity observations to the nearest five percent at 15-second intervals on the Visible Emissions Observation Record in *Section 9*, and
 - (v) the minimum number of observations required by the permit; each momentary observation recorded shall be deemed to represent the average opacity of emissions for a 15-second period;
 - b. to determine the six-minute average opacity, divide the observations recorded on the record sheet into sets of 24 consecutive observations; sets need not be consecutive in time and in no case shall two sets overlap; for each set of 24 observations, calculate the average by summing the opacity of the 24 observations and dividing this sum by 24; record the average opacity on the sheet;
 - c. calculate and record the highest 18-consecutive-minute averages observed.
- 3.2 If using the Smoke/No Smoke Plan of condition 2.2, record the following information in a written log for each observation and submit copies of the recorded information upon request of the department:
- a. the date and time of the observation;
 - b. the ID of the emission unit observed;
 - c. whether visible emissions are present or absent in the exhaust;
 - d. a description of the background to the exhaust during the observation;
 - e. if the emission unit starts operation on the day of the observation, the startup time of the emission unit;
 - f. name and title of the person making the observation; and
 - g. operating rate (load or fuel consumption rate).

4. Diesel Engine Visible Emissions Reporting. The Permittee shall report visible emissions as follows:

4.1 Include in each operating report required in condition 49:

- a. which visible-emissions plan of condition 2 was used for each emission unit; if more than one plan was used, give the time periods covered by each plan;
- b. for each emission unit under the Method 9 Plan,
 - (i) copies of the observation results (i.e. opacity observations) for each emission unit that used the Method 9 Plan, except for the observations the Permittee has already supplied to the Department; and
 - (ii) a summary to include:
 - (A) number of days observations were made;
 - (B) highest six-minute average observed; and
 - (C) dates when one or more observed six-minute averages were greater than 20 percent;
- c. for each emission unit under the Smoke/No Smoke Plan, the number of days that Smoke/No Smoke observations were made and which days, if any, that smoke was observed; and
- d. a summary of any monitoring or record keeping required under condition 2 and 3 that was not done.

4.2 Report under condition 48 for excess emissions and permit deviation reports:

- a. the results of Method 9 observations that exceed an average 20 percent for any six-minute period; and
- b. if any monitoring under condition 2 was not performed when required, report within three days of the date the monitoring was required.

5. Asphalt Plant Visible Emissions Monitoring. The Permittee shall observe the exhaust of the drum/dryer subject to condition 1 of this permit for visible emissions in accordance with 40 C.F.R. 60, Appendix A, Method 9.

[18 AAC 50.040(j), 12/3/05 & 18 AAC 50.326(j), 12/1/04; and 18 AAC 50.050(a), 5/03/02]
[40 C.F.R. 71.6(a)(1), 7/1/04]

- a. within two days of startup at a new location;
- b. at least once during a 30-day operating period at the same location;
- c. when the facility starts up after a shut down period of more than 5 days;
- d. conduct at least one set of Method 9 readings during each one hour run of Method 5 particulate matter testing required in *Section 4*.

6. Asphalt Plant Visible Emissions Recordkeeping. The Permittee shall keep records as follows:

[18 AAC 50.040(j), 12/3/05 & 18 AAC 50.326(j) and 18 AAC 50.346(c), 10/1/04]
[40 C.F.R. 71.6(a)(3), 7/1/04]

6.1 the observer shall record

- (i) the name of the stationary source, emission unit and location, stationary source type, observer's name and affiliation, and the date on the Visible Emissions Form in *Section 9*;
 - (ii) the time, estimated distance to the emissions location, approximate wind direction, estimated wind speed, description of the sky condition (presence and color of clouds), plume background, and operating rate (load or fuel consumption rate) on the sheet at the time opacity observations are initiated and completed;
 - (iii) the presence or absence of an attached or detached plume and the approximate distance from the emissions outlet to the point in the plume at which the observations are made;
 - (iv) opacity observations to the nearest five percent at 15-second intervals on the Visible Emission Form *Section 9*, and
 - (v) the minimum number of observations required by the permit; each momentary observation recorded shall be deemed to represent the average opacity of emissions for a 15-second period;
- b. to determine the six-minute average opacity, divide the observations recorded on the record sheet into sets of 24 consecutive observations; sets need not be consecutive in time and in no case shall two sets overlap; for each set of 24 observations, calculate the average by summing the opacity of the 24 observations and dividing this sum by 24; record the average opacity on the sheet;
 - c. calculate and record the highest 18-consecutive-minute averages observed.

7. Asphalt Plant Visible Emissions Reporting. The Permittee shall report visible emissions as follows:

[18 AAC 50.040(j), 12/3/05 & 18 AAC 50.326(j) and 18 AAC 50.346(c), 10/1/04]
[40 C.F.R. 71.6(a)(3), 7/1/04]

7.1 Include in each operating report required in condition 49:

- a. copies of the observation results (i.e. opacity observations) for each emission unit except for the observations the Permittee has already supplied to the Department; and
- b. a summary to include:
 - (A) number of days observations were made;

- (B) highest six-minute average observed; and
 - (C) dates when one or more observed six-minute averages were greater than 20 percent;
- c. a summary of any monitoring or record keeping required under condition 5 and 6 that was not done.
- 7.2 Report under condition 48 for excess emissions and permit deviation reports:
- a. the results of Method 9 observations that exceed an average 20 percent for any six-minute period; and
 - b. if any monitoring under condition 5 was not performed when required, report within three days of the date of discovery.

Particulate Matter Standard Requirements

8. Asphalt Plant Particulate Matter (PM) Emissions Standard. The Permittee shall:

- a. for asphalt plants constructed, reconstructed, or modified on or before June 11, 1973, do not discharge PM concentrations in the exhaust gas which contain more than 0.05 gr/dscf; and
 - b. for asphalt plants constructed, reconstructed, or modified after June 11, 1973, do not discharge PM concentrations in the exhaust gas which contain more than 0.04 gr/dscf;
- 8.1 Conduct PM source tests in accordance in accordance with *Section 4* and as follows:
- a. For a new stationary source perform a PM source test within the first 30 days of operating under this minor general permit; if the Permittee will not complete a source test within the first 30 days, then the Permittee may operate the stationary source, but is restricted to operating no more than six hours per day, and no more than 30 days each calendar year until the test is done.
 - b. Conduct on-going PM source test using EPA Reference Method 5 every five years or 7,200 operating hours, whichever occurs first.
 - c. If the results of any PM source test exceed more than 90 percent of the PM emission standard listed in condition 8 (i.e. either 0.045 grains per dry standard cubic foot (gr/dscf) or 0.036 gr/dscf depending on date of construction of the asphalt plant), conduct another source test within one year of the date of the most recent source test.
- 8.2 For all PM source tests, record the information requested in *Section 13* of this permit.
- 8.3 Do not operate the asphalt plant at a production level greater than the maximum throughput measured during the most recent PM source test that showed compliance. Report the maximum throughput in the operating report required in condition 49. Maintain a daily production log showing:

- a. the daily asphalt throughput rate;
 - b. the daily total asphalt production;
 - c. the peak hourly rate production for each day;
 - d. the start and stop time with the date for each day asphalt plant was operated;
 - e. total hours operated per day; and
 - f. the total number of hours operated since the last source test.
- 8.4 If the results of any PM source test exceed the PM standard, notify the Department of the violation as set out in condition 48, make any necessary repairs or adjustments to the operation and schedule another source test.
- 8.5 Provide the information recorded in condition 8.3 in the operating report under condition 49
9. **Diesel Engine PM Standard.** The Permittee shall not cause or allow PM emitted from a diesel engine authorized by this permit to exceed 0.05 grains per cubic foot of exhaust corrected to standard conditions and averaged over three hours. Monitor, record, and report as indicated in conditions 10, 11, and 12, respectively.
10. **Diesel Engine PM Monitoring.** The Permittee shall conduct source tests on a diesel engine authorized by this permit to determine the concentration of PM in the exhaust in accordance with this condition.
- 10.1 Within six calendar months that the engine operates after exceeding the criteria of condition 10.2a or 10.2b, either
- a. conduct a PM source test according to *Section 4*; or
 - b. make repairs so that emissions no longer exceed the criteria of condition 10.2; to show that emissions are below those criteria, observe emissions as described in condition 2.1 under load conditions comparable to those when the criteria were exceeded.
- 10.2 Conduct the test according to condition 10.1 if
- a. 18 consecutive minutes of Method 9 observations result in an 18-minute average opacity greater than 20 percent; or
 - b. for an emission unit with an exhaust stack diameter that is less than 18 inches, 18 consecutive minutes of Method 9 observations result in an 18-minute average opacity that is greater than 15 percent and not more than 20 percent, unless the Department has waived this requirement in writing.
- 10.3 During each one hour PM source test run, observe the exhaust for 60 minutes in accordance with Method 9 and calculate the average opacity that was measured during each one hour test run. Submit a copy of these observations with the source test report.

10.4 The automatic PM source test requirement in condition 10.1 and 10.2 is waived for an engine if a PM source test on that unit has shown compliance with the PM standard within the previous five years.

11. Diesel Engine PM Recordkeeping. Within 180 calendar days after letter of authorization is issued for this minor general permit, the Permittee shall record the exhaust stack of diameter(s) of a diesel engine authorized under this minor general permit. Report the stack diameter(s) in the next operating report under condition 49.

12. Diesel Engine PM Reporting. The Permittee shall:

12.1 report under condition 48

- a. the results of any PM source test that exceeds the PM emissions limit; or
- b. if one of the criteria of condition 10.2 was exceeded and the Permittee did not comply with either condition 10.1a or 10.1b, this must be reported by the day following the day compliance with condition 10.1 was required;

12.2 report observations in excess of the threshold of condition 10.2b within 30 days of the end of the month in which the observations occur;

12.3 in each operating report required by condition 49, include

- a. the dates, unit IDs, and results when an observed 18-minute average was greater than an applicable threshold in condition 10.2;
- b. a summary of the results of any PM testing under condition 10; and
- c. copies of any visible emissions observation results (opacity observations) greater than the thresholds of condition 10.2, if they were not already submitted.

Sulfur Compound Emissions Standard Requirements

13. Sulfur Compound Emissions. In accordance with 18 AAC 50.055(c), the Permittee shall not cause or allow sulfur compound emissions, expressed as SO₂, from an asphalt plant or a diesel engine to exceed 500 parts per million (ppm) averaged over three hours. Except as indicated in condition 14, monitor, record, and report as follows.

13.1 Do one of the following for each shipment of fuel:

- a. if the fuel grade requires a sulfur content less than 0.5 percent by weight, keep receipts that specify fuel grade and amount; or
- b. if the fuel grade does not require a sulfur content less than 0.5 percent by weight, keep receipts that specify fuel grade and amount and
 - (i) test the fuel for sulfur content; or
 - (ii) obtain test results showing the sulfur content of the fuel from the supplier or refinery; the test results must include a statement signed by the supplier or refinery of what fuel they represent.

- 13.2 Fuel testing under condition 13.1 must follow an appropriate method listed in 18 AAC 50.035 or another method approved in writing by the Department.
- 13.3 If a load of fuel contains greater than 0.75 weight percent sulfur, the Permittee shall calculate SO₂ emissions in parts per million by weight (ppmw) using the SO₂ material balance calculation in *Section 10* or Method 19 of 40 C.F.R. 60, Appendix A-7, adopted by reference in 18 AAC 50.040(a).
- 13.4 If SO₂ emissions are calculated under condition 13.3 to exceed 500 ppmv, report under condition 48. Include the calculation under *Section 10*.
- 13.5 Include in the operating report required by condition 49:
- a list of the fuel grades received at the stationary source during the reporting period;
 - for any grade with a maximum fuel sulfur greater than 0.5 weight percent, the fuel sulfur of each shipment; and
 - for fuel with a sulfur content greater than 0.75 weight percent, the calculated SO₂ emissions in ppmw.
- 14. Sulfur Compound Emissions – North Slope Topping Plant.** For liquid fuel from a North Slope topping plant, the Permittee shall obtain from the topping plant the results of a monthly fuel analysis.
- 14.1 Include in the operating report required by condition 49, a list of the sulfur content measured for each month covered by the report.
- 14.2 Report under condition 48, if the sulfur content for any month exceed 0.75 weight percent.
- 15. Used Oil in Diesel Engines.** Except for emission testing purposes, the Permittee is prohibited from burning used oil fuel blends in any diesel engine until the Department approves results of an emission source test demonstrating that burning used oil fuel blend in that engine type will comply with the particulate matter emission standard of condition 1 and the visible emission standard of condition 2.
- 15.1 After Department approval of the used oil fuel blend demonstration as set out by condition 15, the Permittee shall²:
- analyze each batch of used oil to determine the sulfur content using an approved ASTM method such as ASTM D129, D1266, D1522, D2622, D4045, or D4294 and maintain records showing the results of each analysis;

² CAUTION! Although this condition should ensure compliance with the applicable emission standards of 18 AAC 50, this permit does NOT ensure compliance with other applicable state or federal laws concerning management, use, or disposal of used oil.

- b. blend the used oil with fuel oil at a ratio that will ensure compliance with the sulfur limit of condition 13. However, the used oil fuel blend shall be mixed at a ratio of no greater than tested as set out by condition 15
- 15.2 Include with the operating report required by condition 49:
- a. results of each analysis as set out by condition 15.1; and
 - b. for each batch of used oil fuel blended, the amounts of fuel oil and used oil; the blend ratio; the final sulfur content; and the blend date.
- 15.3 Report as set out by condition 48 any time the blend ratio or other requirements deviate from condition 15.

Ambient Air Quality Protection

16. 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

- 16.1 not operate the asphalt plant or a diesel engine used to provide electrical or mechanical power³ to the asphalt plant, within 330 feet of the nearest residential structure;⁴ and
- 16.2 not operate for more than *two* construction seasons an asphalt plant, or a diesel engine used to provide electrical or mechanical power to the asphalt plant, that is located:
 - a. between 330 and 800 feet of the nearest residence or other occupied structure; or
 - b. between 330 and 1,100 feet of the nearest residence or other occupied structure if the residence or structure is located on terrain that is more than 30 feet above any ground level of the asphalt plant

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. These investigations could result in:*

1. *a formal request under 18 AAC 50.201 that the Permittee demonstrate, by air quality dispersion modeling or other means, that the air quality impacts are not violating State air quality standards or increments; or creating a public nuisance (under 18 AAC 50.110);*
2. *the requirement to reduce emissions or implement another control strategy to reduce the ambient impact of those emissions as necessary to ensure that the concentration*

³ This does not include wheeled or tracked equipment powered by a diesel engine such as front end loaders.

⁴ For purposes of complying with Conditions 16.1 and 16.2, 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.

- of air pollutants does not exceed the State air quality standards or increments; or the concerns listed in 18 AAC 50.110;*
3. *a requirement to install and operate air quality monitoring equipment; or*
 4. *the requirement to obtain a site specific permit with which would contain requirements tailored to that exact operation.*
- 17. SO₂ Special Protection Area.** If operating in one of the Sulfur Dioxide Special Protection Areas described in 18 AAC 50.025 (Unalaska or St. Paul) a diesel engine may not be used for electrical power generation. The stationary source must operate on highline power. If the diesel engines are used for another purpose other than electrical power generation they may not burn fuel with a sulfur content greater than 0.075 percent by weight.
- 18. Additional Restrictions for Bells Flats (Kodiak).** In any equipment operating at an asphalt plant in the Bells Flats area of Kodiak that burns liquid fuel, the Permittee shall:
- 18.1 burn fuel that has a sulfur content not exceeding 0.4 percent by weight;
 - 18.2 not operate more than 13 hours in a calendar day; and
 - 18.3 submit records of fuel burned and hours of operation in operating report required in condition 49.

Section 3 General Conditions

19. The Permittee must comply with each permit term and condition. Noncompliance with a permit term or condition constitutes a violation of AS 46.14, 18 AAC 50, and, except for those terms or conditions designated in the permit as not federally enforceable, the Clean Air Act, and is grounds for
 - 19.1 an enforcement action; or
 - 19.2 permit termination, revocation and reissuance, or modification in accordance with AS 46.14.280.
20. It is not a defense in an enforcement action to claim that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with a permit term or condition. Each permit term and condition is independent of the permit as a whole and remains valid regardless of a challenge to any other part of the permit.
21. The permit may be modified, reopened, revoked and reissued, or terminated for cause. A request by the Permittee for modification, revocation and reissuance, or termination or a notification of planned changes or anticipated noncompliance does not stay any permit condition.
22. The permit does not convey any property rights of any sort, nor any exclusive privilege.
23. **Administration Fees.** The Department charges Permit Administration fees for the issuing or renewing the General Permit. Permit compliance fees are charged for the review of the annual compliance certifications and the review of the operating reports. The Permittee shall pay to the Department all assessed permit administration fees. Administration fee rates are set out in 18 AAC 50.400-405.
24. **Assessable Emissions.** The Permittee shall pay to the Department annual emission fees based on the stationary source's assessable emissions as determined by the Department under 18 AAC 50.410. The assessable emission fee rate is set out in 18 AAC 50.410(b). The Department will assess fees per ton of each air pollutant that the stationary source emits or has the potential to emit in quantities greater than 10 tons per year. The quantity for which fees will be assessed is the lesser of
 - 24.1 the stationary source's assessable potential to emit of _____ tpy; or
 - 24.2 the stationary source's projected annual rate of emissions that will occur from July 1 to the following June 30, based upon actual annual emissions emitted during the most recent calendar year or another 12 month period approved in writing by the Department, when demonstrated by
 - a. an enforceable test method described in 18 AAC 50.220;
 - b. material balance calculations;
 - c. emission factors from EPA's publication AP-42, Vol. I, adopted by reference in 18 AAC 50.035;

- d. calculations based upon the Department's Asphalt Plant Emission Fee Calculation Guide in *Section 14*; or
- e. other methods and calculations approved by the Department.

25. Assessable Emissions Estimates. Emission fees will be assessed as follows:

- 25.1 no later than March 31 of each year, the Permittee may submit an estimate of the stationary source's assessable emissions to ADEC, Air Permits Program, per the Emission Reporting and Emission Fee Estimate form in Attachment 1; the submittal must include all of the assumptions and calculations used to estimate the assessable emissions in sufficient detail so the Department can verify the estimates; or
- 25.2 if no estimate is received on or before March 31 of each year, emission fees for the next fiscal year will be based on the potential to emit set out in condition 24.1.

26. Maintenance. For all emission units authorized by this minor general permit, the Permittee shall:

- 26.1 perform regular maintenance considering the manufacturer's or the operator's maintenance procedures;
- 26.2 keep records of any maintenance that would have a significant effect on emissions (the records may be kept in an electronic format);
- 26.3 keep a copy of either the manufacturer's or the operator's maintenance procedures.

27. Pollution Control Equipment Breakdown Reporting

- 27.1 Notify the Department within two days of a pollution-control equipment breakdown. Provide a schedule for repair of the pollution control equipment and do not operate the plant after the breakdown until repairs have been completed
- 27.2 In the operating report required in condition 49, provide a summary of any pollution control equipment breakdowns. The summary shall include:
 - a. The equipment involved;
 - b. the date of the breakdown; and
 - c. the date the equipment was returned to service.

28. Good Air Pollution Control Practice.

- a. The Permittee shall do the following:
 - b. perform regular maintenance considering the manufacturer's or the operator's maintenance procedures;
 - c. keep records of any maintenance that would have a significant effect on emissions; the records may be kept in electronic format; and

- d. keep a copy of either the manufacturer's or the operator's maintenance procedures.

28.1 A Permittee operating a stationary source using a baghouse shall:

- a. operate the baghouse per the manufacturer's recommended operating procedures;
- b. at the end of each run, operate the baghouse fans until the baghouse has been purged of exhaust gases per the manufacturer's recommendations;
- c. monitor the pressure drop across the baghouse and the baghouse outlet temperature ensuring they remain within the manufacturer's recommendations;
- d. perform inspections of the equipment and complete necessary maintenance prior to equipment startup in a new location and after shutdown periods lasting more than five days;
- e. inspect the baghouse every 30 days of operation at the same location;
- f. replace worn or damaged bags, seals, and gaskets within 72 hours of discovery;
- g. operate the baghouse efficiently to control opacity and particulate matter emissions;
- h. keep a daily production log showing the following:
 - (i) pressure drop across the baghouse at the beginning of each production day; and
 - (ii) pressure drop across the baghouse at the end of each production day.
- i. keep a record of the baghouse inspections showing the following:
 - (i) date of inspection and name of person conducting the inspection;
 - (ii) number of worn or damaged bags detected and the date discovered;
 - (iii) number of bags replaced and date replaced;
 - (iv) number of worn or damaged seals/gaskets detected and the date discovered;
 - (v) number of seals/gaskets replaced and the date replaced.
- j. Submit a summary of the records and information required by condition 28.1 in the operating report required by condition 49

28.2 A Permittee operating a stationary source using a scrubber shall:

- a. inspect every component of the control device before the first operation each season and repair or replace any component that shows signs of deterioration;

- b. operate the scrubber efficiently to control opacity and particulate matter emissions;
- c. monitor and maintain the differential pressure across the scrubber, the scrubber water flow rate, and the scrubber water inlet and outlet temperature, within limits recommended by the manufacturer;
- d. if using a wet scrubber, keep a daily production log showing the following:
 - (i) pressure drop across the wet scrubber;
 - (ii) inlet water temperature;
 - (iii) outlet water temperature;
 - (iv) water flow rate to the scrubber for each day of production; and
 - (v) scrubber water pressure.
- e. keep a record of the scrubber inspections showing the following:
 - (i) date of inspection and name of person conducting the inspection;
 - (ii) number of components detected that are worn or damaged and the date discovered; and
 - (iii) number of components replaced and date replaced.
- f. Submit a summary of the records and information required by condition 28.2 in the operating report required by condition 49

29. Dilution. The Permittee shall not dilute emissions with air to comply with this permit. Monitoring shall consist of an annual certification that the Permittee does not dilute emissions to comply with this permit.

30. Reasonable Precautions to Prevent Fugitive Dust. A person who causes or permits bulk materials to be handled, transported, or stored, or who engages in an industrial activity or construction project shall take reasonable precautions to prevent the release of airborne PM and fugitive dust from aggregate piles, conveyors and elevators, loading locations, the rotary drum, crushers, screens, baghouse ash discharge, vehicle traffic within the stationary source boundaries and other sources of fugitive dust.

30.1 Reasonable precautions for asphalt plants to prevent PM from becoming airborne include as necessary:

- a. installation and use of hoods;
- b. fans and dust collectors to enclose and vent dusty materials;
- c. other covers and enclosures to prevent generation or release of fugitive dust;
- d. cleanup of loose material on work surfaces;

- e. minimizing drop distances on conveyor systems and lowering loader buckets to be in contact with the surface of the soil or ground before dumping;
- f. application of water or suitable chemicals to road surfaces to prevent the generation of fugitive dust;
- g. gratings at the exit of the Stationary source to prevent tracking of dirt or mud onto public roads;
- h. for an asphalt plant located near a business, residence or other occupied structure, if the wind is blowing toward the structure and emissions from an activity would result in a violation of condition 32, stopping the activity that would cause the violation while the wind blows in that direction.

30.2 Dust Control Plans

- a. If a location listed in an application or in an application addendum (*Section 12* of this permit) is within one mile of the nearest inhabited off-site structure, the applicant or Permittee must attach a fugitive dust control plan as part of that application or addendum. The Permittee must also submit a fugitive dust control plan, or revision to the plan if requested by the Department. The operator must comply with a plan required under this condition.
- b. The plan must be specific to any location named in a permit application or application addendum, and must say what measures will be taken and under what circumstances the Permittee will use them. If necessary, the plan will identify the frequency with which the measures will be applied. A plan does not fulfill this requirement if it only says what measures can be taken for a particular emission unit.

30.3 If the Permittee deviated from the fugitive dust plan submit a permit deviation that explains;

- a. In what way the Permittee deviated from the plan,
- b. the cause of the deviation and, and
- c. why it was necessary.

31. Stack Injection. The Permittee shall not release materials other than process emissions, products of combustion, or materials introduced to control pollutant emissions from a stack at a source constructed or modified after November 1, 1982, except as authorized by a construction permit, Title V permit, or air quality control permit issued before October 1, 2004.

32. Air Pollution Prohibited. No person may permit any emission which is injurious to human health or welfare, animal or plant life, or property, or which would unreasonably interfere with the enjoyment of life or property.

32.1 If emissions present a potential threat to human health or safety, the Permittee shall report any such emissions according to condition 48.

- 32.2 As soon as practicable after becoming aware of a complaint that is attributable to emissions from the stationary source, the Permittee shall investigate the complaint to identify emissions that the Permittee believes have caused or are causing a violation of condition 32.
- 32.3 The Permittee shall initiate and complete corrective action necessary to eliminate any violation identified by a complaint or investigation as soon as practicable if
- a. after an investigation because of a complaint or other reason, the Permittee believes that emissions from the stationary source have caused or are causing a violation of condition 32; or
 - b. the Department notifies the Permittee that it has found a violation of condition 32.
- 32.4 The Permittee shall keep records of
- a. the date, time, and nature of all emissions complaints received;
 - b. the name of the person or persons that complained, if known;
 - c. a summary of any investigation, including reasons the Permittee does or does not believe the emissions have caused a violation of condition 32; and
 - d. any corrective actions taken or planned for complaints attributable to emissions from the stationary source.
- 32.5 With each operating report under condition 49, the Permittee shall include a brief summary report which must include
- a. the number of complaints received;
 - b. the number of times the Permittee or the department found corrective action necessary;
 - c. the number of times action was taken on a complaint within 24 hours; and
 - d. the status of corrective actions the Permittee or department found necessary that were not taken within 24 hours.
- 32.6 The Permittee shall notify the Department of a complaint that is attributable to emissions from the stationary source within 24 hours after receiving the complaint, unless the Permittee has initiated corrective action within 24 hours of receiving the complaint.

33. Maintenance. The Permittee shall:

- 33.1 perform regular maintenance considering the manufacturer's or the operator's maintenance procedures;
- 33.2 keep records of any maintenance that would have a significant effect on emissions; the records may be kept in an electronic format; and

- 33.3 Keep a copy of either the manufacturers or the operators maintenance procedures in an accessible location.

Section 4 General Source Testing and Monitoring Requirements

- 34. Requested Source Tests.** In addition to any source testing explicitly required by this permit, the Permittee shall conduct source testing as requested by the Department to determine compliance with applicable permit requirements.
- 35. Operating Conditions.** Unless otherwise specified by an applicable requirement or test method, the Permittee shall conduct source testing
- 35.1 at a point or points that characterize the actual discharge into the ambient air; and
 - 35.2 at the maximum rated burning or operating capacity of the source or another rate determined by the department to characterize the actual discharge into the ambient air.
- 36. Reference Test Methods.** The Permittee shall use the following as reference test methods when conducting source testing for compliance with this permit:
- 36.1 Source testing for compliance with requirements adopted by reference in 18 AAC 50.040(a) must be conducted in accordance with the methods and procedures specified in 40 C.F.R. 60.
 - 36.2 Source testing for compliance with requirements adopted by reference in 18 AAC 50.040(b) must be conducted in accordance with the methods and procedures specified in 40 C.F.R. 61.
 - 36.3 Source testing for compliance with requirements adopted by reference in 18 AAC 50.040(c) must be conducted in accordance with the source test methods and procedures specified in 40 C.F.R. 63.
 - 36.4 Source testing for the reduction in visibility through the exhaust effluent must be conducted in accordance with the procedures set out in Reference Method 9 and may use the form in *Section 9* to record data.
 - 36.5 Source testing for emissions of total particulate matter, sulfur compounds, nitrogen compounds, carbon monoxide, lead, volatile organic compounds, fluorides, sulfuric acid mist, municipal waste combustor organics, metals, and acid gases must be conducted in accordance with the methods and procedures specified in 40 C.F.R. 60, Appendix A.
 - 36.6 Source testing for emissions of PM-10 must be conducted in accordance with the procedures specified in 40 C.F.R. 51, Appendix M, Methods 201 or 201A and 202.
 - 36.7 Source testing for emissions of any pollutant may be determined using an alternative method approved by the department in accordance with 40 C.F.R. 63 Appendix A, Method 301.
- 37. Excess Air Requirements.** To determine compliance with this permit, standard exhaust gas volumes must include only the volume of gases formed from the theoretical combustion of the fuel, plus the excess air volume normal for the specific source type,

corrected to standard conditions (dry gas at 68° F and an absolute pressure of 760 millimeters of mercury).

- 38. Test Exemption.** The Permittee is not required to comply with conditions 40, 41 and 42 when the exhaust is observed for visible emissions by Method 9 Plan (condition 2.1) or Smoke/No Smoke Plan (condition 2.2)
- 39. Test Deadline Extension.** The Permittee may request an extension to a source test deadline established by the department. The Permittee may delay a source test beyond the original deadline only if the extension is approved in writing by the Department's appropriate division director or designee.
- 40. Test Plans.** Before conducting any source tests, the Permittee shall submit a plan to the Department. The plan must include the methods and procedures to be used for sampling, testing, and quality assurance, and must specify how the emission unit will operate during the test and how the Permittee will document that operation. The Permittee shall submit a complete plan within 60 days after receiving a request under condition 34 and at least 30 days before the scheduled date of any test unless the Department agrees in writing to some other time period. Retesting may be done without resubmitting the plan.
- 41. Test Notification.** At least 10 days before conducting a source test, the Permittee shall give the Department written notice of the date and the time the source test will begin.
- 42. Test Reports.** Within 60 days after completing a source test, the Permittee shall submit two copies of the results in the format set out in the *Source Test Report Outline*, adopted by reference in 18 AAC 50.030. The Permittee shall certify the results in the manner set out in condition 34. If requested in writing by the Department, the Permittee must provide preliminary results in a shorter period of time specified by the Department.

Section 5 Performance Testing for New Asphalt Plants

34. Performance Test for New Asphalt Plant

This condition only applies to new asphalt plants that have not done the one time performance test to satisfy the New Source Performance Standard (NSPS) requirement in 40 C.F.R. 60.93 and 40 C.F.R. 60.8.

- 34.1 Perform a performance test within 60 days after achieving the maximum production rate of the equipment subject to a federal standard but not later than 180 days of initial startup. The Department and/or EPA may request additional performance tests at their discretion.
- 34.2 Conduct and report performance tests as specified in the particular Subpart unless the EPA has approved an alternative testing and reporting.
- 34.3 Performance tests shall occur at the facility's representative operation. Submit information so that the Department and/or EPA can determine the facility's representative operation. See 40 C.F.R. 60.8(c).
- 34.4 Notify the Department and EPA at least 30 days before the start of the performance tests.
- 34.5 Provide adequate sampling ports at appropriate locations as required by the applicable EPA method.
- 34.6 Perform the performance test using the applicable test method for at least 3 separate runs or as specified in the applicable subpart. If the one of the three runs is interrupted by circumstances beyond the Permittee's control, then the EPA at its discretion may approve averaging only two runs.
- 34.7 The initial opacity (visible emission) performance test must be at least 3 hours (30 six minute averages) during periods of operation. The opacity standard applies at all times except for startup, shutdown and malfunction.
- 34.8 At all times, and to the extent practicable, maintain and operate the facility, including air pollution control equipment, in a manner consistent with good air pollution control practices for minimizing emissions.
- 34.9 Postmark all submittals required by federal standards by the date required by the Department and EPA.
- 34.10 To demonstrate initial compliance, perform visible emission readings using Method 9 as outlined in condition 2.1.

Section 6 Stationary Source Wide Requirements

35. Operation and Maintenance Plan

Before operating under this permit, the operator shall prepare and submit an Operations and Maintenance Plan to the Air Permit Program, 555 Cordova Street, Anchorage, Alaska 99501, to illustrate how the Stationary source will be operated and maintained in order to comply with the emission limits as specified in this permit. The Permittee may submit changes to the operating plan as long as the new plan shows how the Stationary source will comply with the emission limits in the permit.

36. Stationary Fuel Storage Tanks

If a liquid fuel other than ASTM D2 (diesel fuel #2) is stored in tanks onsite, there are requirements from 40 C.F.R. 60 Subpart Ka or Kb that may apply. The Permittee shall contact the department if 40 C.F.R. 60 Subpart Ka or Kb apply to the stationary source.

Section 7 General Recordkeeping and Reporting

- 43. Reporting of Site Selection.** The Permittee shall notify the Department at least 10 days prior to installing or relocating an asphalt plant. The Permittee shall use the application addendum form in *Section 12* of this permit for this notification.
- 44. Recordkeeping Requirements.** The Permittee shall keep all records required by this permit for at least five years after the date of collection, including
- 44.1 copies of all reports and certifications submitted pursuant to this section of the permit; and
- 44.2 records of all monitoring required by this permit, and information about the monitoring including:
- a. calibration and maintenance records, original strip chart or computer-based recordings for continuous monitoring instrumentation;
 - b. sampling dates and times of sampling or measurements;
 - c. the operating conditions that existed at the time of sampling or measurement;
 - d. the date analyses were performed;
 - e. the location where samples were taken;
 - f. the company or entity that performed the sampling and analyses;
 - g. the analytical techniques or methods used in the analyses; and
 - h. the results of the analyses.
- 45. Certification.** The Permittee shall certify all reports, compliance certifications, or other documents submitted to the Department and required under the permit by including the signature of a responsible official for the permitted stationary source following the statement: “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.” Excess emission reports must be certified either upon submittal or with an operating report required for the same reporting period. All other reports and other documents must be certified upon submittal. The Department may accept an electronic signature on an electronic application or other electronic record required by the Department if
- 45.1 a certifying authority registered under AS 09.25.510 verifies that the electronic signature is authentic; and
- 45.2 the person providing the electronic signature has made an agreement, with the certifying authority described in 45.1, that the person accepts or agrees to be bound by an electronic record executed or adopted with that signature.
- 46. Submittals.** Unless otherwise directed by the Department or this permit, the Permittee shall send reports, compliance certifications, and other documents required by this permit

to ADEC, Air Permits Program, 610 University Ave., Fairbanks, AK 99709-3643, ATTN: Compliance Technician. The Permittee may, upon consultation with the Compliance Technician regarding software compatibility, provide electronic copies of data reports, emission source test reports, or other records under a cover letter certified in accordance with condition 43.

47. Information Requests. The Permittee shall furnish to the department, within a reasonable time, any information the Department requests in writing to determine whether cause exists to modify, revoke and reissue, or terminate the permit or to determine compliance with the permit. Upon request, the Permittee shall furnish to the Department copies of records required to be kept by the permit. The Department may require the Permittee to furnish copies of those records directly to the federal administrator.

48. Excess Emissions and Permit Deviation Reports.

48.1 Except as provided in condition 32, the Permittee shall report all emissions or operations that exceed or deviate from the requirements of this permit as follows:

- a. in accordance with 18 AAC 50.240(c), as soon as possible after the event commenced or is discovered, report
 - (i) emissions that present a potential threat to human health or safety; and
 - (ii) excess emissions that the Permittee believes to be unavoidable;
- b. in accordance with 18 AAC 50.235(a), within two working days after the event commenced or was discovered, report an unavoidable emergency, malfunction, or nonroutine repair that causes emissions in excess of a technology based emission standard;
- c. report all other excess emissions and permit deviations
 - (i) within 30 days of the end of the month in which the emissions or deviation occurs or is discovered, except as provided in conditions 48.1c(ii) and 48.1c(iii);
 - (ii) if a continuous or recurring excess emissions is not corrected within 48 hours of discovery, within 72 hours of discovery unless the Department provides written permission to report under condition 48.1c(i); and
 - (iii) for failure to monitor, as required in other applicable conditions of this permit.

48.2 The Permittee must report using either the Department's on-line form, or if the Permittee prefers, the form contained in *Section 11* of this permit. The Permittee must provide all information called for by the form that is used.

48.3 If requested by the Department, the Permittee shall provide a more detailed written report as requested to follow up an excess emissions report.

- 49. Operating Reports.** During the life of this permit, the Permittee shall submit to the Department an original and two copies of an operating report by April 30 for the previous period October 1 to March 31 and by October 30 for the previous April 1 to September 30. The Permittee, at their discretion, may submit one copy in electronic format (PDF or other Department compatible image format).
- 49.1 The operating report must include all information required to be in operating reports by other conditions of this permit.
- 49.2 If excess emissions or permit deviations that occurred during the reporting period are not reported under condition 49.1, either
- a. The Permittee shall identify
 - (i) the date of the deviation;
 - (ii) the equipment involved;
 - (iii) the permit condition affected;
 - (iv) a description of the excess emissions or permit deviation; and
 - (v) any corrective action or preventive measures taken and the date of such actions; or
 - b. When excess emissions or permit deviations have already been reported under condition 48 the Permittee may cite the date or dates of those reports.

Section 8 Compliance Requirements

- 50.** Compliance with permit terms and conditions is considered to be compliance with those requirements that are
- 50.1 included and specifically identified in the permit; or
 - 50.2 determined in writing in the permit to be inapplicable.
- 51.** The Permittee must comply with each permit term and condition. Noncompliance with a permit term or condition constitutes a violation of AS 46.14.120(c), 18 AAC 50, and, except for those terms or conditions designated in the permit as not federally enforceable, the Clean Air Act, and is grounds for
- 51.1 an enforcement action; or
 - 51.2 permit termination, revocation and reissuance, or modification in accordance with AS 46.14.280.
- 52.** It is not a defense in an enforcement action to claim that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with a permit term or condition.
- 53.** The Permittee shall allow the Department or an inspector authorized by the Department, upon presentation of credentials and at reasonable times with the consent of the owner or operator to
- 53.1 enter upon the premises where a emission unit subject to the permit is located or where records required by the permit are kept;
 - 53.2 have access to and copy any records required by the permit;
 - 53.3 inspect any stationary source, equipment, practices, or operations regulated by or referenced in the permit; and
 - 53.4 sample or monitor substances or parameters to assure compliance with the permit or other applicable requirements.

Section 9 Visible Emissions Forms

Visible Emissions Field Data Sheet

Certified Observer: _____

Company &
Stationary
Source: _____

Location: _____

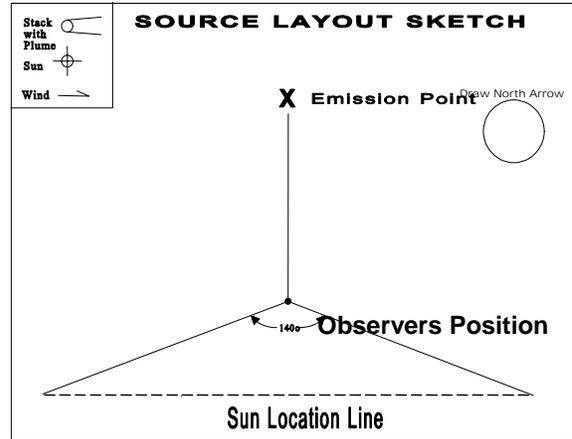
Test No.: _____ Date: _____

Emission Unit: _____

Production Rate/Operating
Rate: _____

Unit Operating Hours: _____

Hrs. of observation: _____



Clock Time	Initial				Final
Observer location					
Distance to discharge					
Direction from discharge					
Height of observer point					
Background description					
Weather conditions					
Wind Direction					
Wind speed					
Ambient Temperature					
Relative humidity					
Sky conditions: (clear, overcast, % clouds, etc.)					
Plume description:					
Color					
Distance visible					
Water droplet plume? (Attached or detached?)					
Other information					

Section 10 Material Balance Calculation

If the sulfur content of a fuel shipment is greater than 0.75% by weight, calculate the three-hour exhaust concentration of SO₂ using the following equations:

A. = 31,200 x [wt%**S**_{fuel}] = 31,200 x _____ = _____

B. = 0.148 x [wt%**S**_{fuel}] = 0.148 x _____ = _____

C. = 0.396 x [wt%**C**_{fuel}] = 0.396 x _____ = _____

D. = 0.933 x [wt%**H**_{fuel}] = 0.933 x _____ = _____

E. = B + C + D = _____ + _____ + _____ = _____

F. = 21 - [vol%**dry O**_{2, exhaust}] = 21 - _____ = _____

G. = [vol%**dry O**_{2, exhaust}] ÷ F = _____ ÷ _____ = _____

H. = 1 + G = 1 + _____ = _____

I. = E x H = _____ x _____ = _____

SO₂ concentration = A ÷ I = _____ ÷ _____ = _____ ppm

The wt%**S**_{fuel}, wt%**C**_{fuel}, and wt%**H**_{fuel} are equal to the weight percents of sulfur, carbon, and hydrogen in the fuel. These percentages should total 100%.

The fuel weight percent (wt%) of sulfur is obtained pursuant to condition 13. The fuel weight percents of carbon and hydrogen are obtained from the fuel refiner.

The volume percent of oxygen in the exhaust (vol%**dry O**_{2, exhaust}) is obtained from oxygen meters, manufacturer’s data, or from the most recent ORSAT analysis at the same engine load used in the calculation.

Enter all of the data in percentages without dividing the percentages by 100. For example, if wt%**S**_{fuel} = 1.0%, then enter 1.0 into the equations not 0.01 and if vol%**dry O**_{2, exhaust} = 3.00%, then enter 3.00, not 0.03.

Section 11 ADEC Notification Form⁵

Stationary Source Name _____

Air Quality Permit Number _____

Company Name _____

When did you discover the Excess Emissions/Permit Deviation?

Date: _____ / _____ / _____ Time: _____ : _____

When did the event/deviation occur?

Begin Date: _____ / _____ / _____ Time: _____ : _____ (please use 24hr clock)

End Date: _____ / _____ / _____ Time: _____ : _____ (please use 24hr clock)

What was the duration of the event/deviation?: _____ : _____ (hrs:min) or _____ days

(total # of hrs, min, or days, if intermittent then include only the duration of the actual emissions/deviation)

Reason for Notification: (please check only 1 box and go to the corresponding section)

Excess Emissions - Complete Section 1 and Certify.

Deviation from Permit Condition - Complete Section 2 and Certify

Deviations from COBC, CO, or Settlement Agreement - Complete Section 2 and Certify

Section 1. Excess Emissions

(a) Was the exceedance: Intermittent or Continuous

(b) Cause of Event (Check one that applies):

Start Up /Shut Down

Natural Cause (weather/earthquake/flood)

Control Equipment Failure

Scheduled Maintenance/Equipment Adjustment

Bad fuel/coal/gas

Upset Condition

Other _____

(c) Description

Describe briefly, what happened and the cause. Include the parameters/operating conditions exceeded, limits, monitoring data and exceedance.

(d) Emissions Units Involved:

Identify the emission unit involved in the event, using the same identification number and name as in the permit. Identify each emission standard potentially exceeded during the event and the exceedance.

Unit ID	Unit Name	Permit Condition Exceeded/Limit/Potential Exceedance

⁵ Revised as of August 24, 2006.

(e) Type of Incident (Please Check only one).

- Opacity _____ %
- Venting _____ (gas/scf)
- Control Equipment Down
- Fugitive Emissions
- Emission Limit Exceeded
- Flaring
- Marine Vessel Opacity
- Other: _____

(f) Unavoidable Emissions:

Do you intend to assert that these excess emissions were unavoidable? Yes No

Do you intend to assert the affirmative defense of 18 AAC 50.235? Yes No

Certify Report (go to end of form)

Section 2 Permit Deviations

(a) Permit Deviation Type (check one only box, corresponding with the section in the permit).

- Emission Unit Specific
- Failure to monitor/report
- General Source Test/Monitoring Requirements
- Recordkeeping/Reporting/Compliance Certification
- Standard Conditions Not Included in Permit
- Generally Applicable Requirements
- Reporting/Monitoring for Diesel Engines
- Insignificant Emission Unit
- Record Keeping Failure
- Stationary Source Wide
- Other Section _____ (title of section and section number of your permit).

(b) Emission Unit Involved.

Identify the emission unit involved in the event, using the same identification number and name

Unit ID	Unit Name	Permit Condition / Potential Deviation

as in the permit. List the corresponding permit conditions and the deviation.

(c) Description of Potential Deviation:

Describe briefly what happened and the cause. Include the parameters/operating conditions and the potential deviation.

(d) Corrective Actions:

Describe actions taken to correct the deviation or potential deviation and to prevent future recurrence.

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.

Printed Name: _____ Title: _____ Date: _____

Signature: _____ Phone Number: _____

To Submit this Report:

Fax to: 907-451-2187;

Email to: DEC.AQ.Airreports@alaska.gov - *if emailed, the report must be certified within the Operating Report required for the same reporting period per condition 49;*

Mail to: ADEC, Air Permits Program, 610 University Avenue, Fairbanks, AK 99709-3643;

Phone Notification: 907-451-5173 - *phone notifications require a written follow-up report within the deadline listed in condition 48; OR*

Online Submission: *(Website is not yet available) - if submitted online, the report must be certified within the Operating Report required for the same reporting period per condition 49.*

Section 12 Application Addendum (Location Change)

Submit the information specified below to the Department's Air Permit Program Compliance Section, 610 University Avenue, Fairbanks, Alaska 99709-3643 *ten* days before moving of the plant to any new location, and the exact date before startup by telephone, fax, e-mail or letter.

Name of Firm: _____ Permit Number _____

Make and Model of the Equipment/ Stationary source to be relocated _____

_____ Attach a complete list of equipment to be operated at the new location

Contact Person: _____ Telephone: _____

New plant location (Street address, Milepost number etc. Include site maps):

Approximate start-up and shut-down dates: _____

Distance from Plant boundary to nearest inhabited structure _____yards

Nearest inhabited structures are on (check one) ___ flat or ___ elevated terrain

If this distance is within one mile, include with this addendum a dust control plan that is specific to this location and is adequate to prevent violations of condition 32, Air Pollution Prohibited

Attach approval documents from Borough where plant is to be located.

Comments: _____

I hereby certify that the information contained in this notification to the best of my knowledge and belief, is true, complete, and accurate. I have taken the information in Condition 16 into account in the site selection for this plant relocation.

Signature: _____ Printed Name: _____

Title: _____ Telephone: _____

Section 13 Parameters to be Monitored During Source Tests

Continuously monitor the following parameters and record the average value

- the asphalt production rate: _____ tons/hour)
- the fines percentage _____ (-200 mesh
- Method 9 readings during the Method 5 testing

For a Stationary source using a baghouse:

- the baghouse exit temperature: _____ EF
- the pressure drop across the baghouse: _____ inches of water

For a Stationary source using a scrubber:

- the pressure drop across the scrubber: _____ inches of water
- water flow rate: _____ gallons/minute

- particulate control: _____ gallons/minute
- the fines percentage _____ (-200 mesh)

Obtain the following:

For a Stationary source using a scrubber, record the following parameters:

- pond size: _____
- pond depth: _____
- type of liner used: _____
- is the water recycled Yes No
 makeup water flow rate: _____ gallons/hr

Section 14 Asphalt Plant Emission Calculation Guide

The Permittee is required to pay to the Department an annual emission fee based on the facility'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)

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

The quantity of emissions for which fees will be assessed is the lesser of the facility's potential to emit; or the projected annual rate of emissions, as that term is used in AS 46.14.250, if demonstrated by an enforceable test method 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.

Emissions for the Asphalt Plant:

Calculate the actual emissions from the asphalt plant for NO_x, CO, SO_x, PM-10, and VOC in tons per year (tpy) using the calculation in Equation 1.

Report the actual emissions in the Emission Reporting and Emission Fee Estimate form, provided in Attachment 1, in the column labeled "Asphalt Plant".

Attach the calculations for all pollutants calculated to the Emission Reporting and Emission Fee Estimate form.

If the manufacturer has provided more accurate emission factors than the factors listed in this section, you may use those emission factors provided the Department approves the use of the factors and the methods used to perform the calculations. You 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. The calculations shall clearly reflect the emission factors used. If you are using emission factors based upon manufacturer's data, attach the manufacturer's data to the calculations.

Emissions for Diesel Engine Generator/s:

Calculate the actual emissions from the diesel engine generator/s for NO_x, CO, SO_x, PM-10, and TOC in tpy using the calculations in either Equation 2 or Equation 3.

Report the actual emissions in the Emission Reporting and Emission Fee Estimate form, provided in Attachment 1, in the column for the "Diesel Generator".

Attach the calculations for all pollutants calculated to the form contained in Emission Reporting and Emission Fee Estimate form.

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.

If the manufacturer has provided more accurate emission factors than the factors listed in this section, you may use those emission factors provided the Department approves the use of the

factors and the methods used to perform the calculations. You 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. The calculations shall clearly reflect the emission factors used. If you are using emission factors based upon manufacturer’s data, attach the manufacturer’s data to the calculations.

Assessable Emissions Fee Estimate:

Add the pollutant from each column (Asphalt Plant and Diesel Generator) 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”.

Submit the form to the Department no later than March 31st of each year.

Equation 1

$$(EF \times (\text{Hours of operation} * RC)) / \text{lbs per ton}$$

Where:

EF = emission factor

RC = rated capacity of asphalt plant in tons per hour

Hours of operation = hours of asphalt production

lbs per ton = 2000

$$(EF \times (\text{hrs} * RC)) / 2000 = \text{tons per year}$$

Emission factors for determining emissions

Emission Factors for Batch Mix Hot Mix Asphalt Plants

Process	CO	NO _x	SO ₂	PM-10 ⁶	PM-10 ⁷	PM-10 ⁸	VOC
Natural gas-fired dryer, hot screens, and mixer	0.40	0.025	0.0046	4.5	0.027	ND	0.0082
No. 2 fuel oil-fired dryer, hot screens, and mixer	0.40	0.12	0.088	4.5	0.027	ND	0.0082

Emission factor units are lb per ton of hot mix asphalt produced. The preceding emission factors were compiled from AP42, 5th addition, Tables 11.1-1, 11.1-5, & 11.1-6

⁶ 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.

⁷ Emissions controlled with a fabric filter (baghouse)

⁸ Emissions controlled with a wet scrubber (ND indicates there was no data for a PM10 emission factor. Facilities may use the PM emission factor of 0.14 for total PM or use data from the manufacturer or source test data when computing PTE for plants using a wet scrubber.)

Emission Factors for Drum Mix Hot Mix Asphalt Plants (Continuous)

Process	CO	NO _x	SO ₂	PM-10 ⁹	PM-10 ¹⁰	PM-10 ¹¹	VOC
Natural gas-fired dryer, hot screens, and mixer	0.13	0.026	0.0034	6.5	0.023	ND	0.032
No. 2 fuel oil-fired dryer, hot screens, and mixer	0.13	0.055	0.011	6.5	0.023	ND	0.032

Emission factor units are lb per ton of hot mix asphalt produced. The preceding emission factors were compiled from AP42, 5th addition, Tables 11.1-3, 11.1-7, & 11.1-8

Equation 2

$$((EF \times Hp) * \text{Hours of operation}) / \text{lbs per ton}$$

Where:

EF = emission factor

HP= horse power of unit

Hours of operation = hours of asphalt production

lbs per ton = 2000

$$((EF * hp) * \text{hrs}) / 2000 = \text{tons per year}$$

Equation 3

$$((EF \times \text{MMBtu}) * \text{Hours of operation}) / \text{lbs per ton}$$

Where:

EF = emission factor

MMBtu = Manufacturer’s rated capacity

Hours of operation = hours of asphalt production

lbs per ton = 2000

$$((EF \times \text{MMBtu}) * \text{hrs}) / 2000 = \text{tons per year}$$

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

Pollutant	CO	NO _x	SO ₂	PM-10	TOC
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

⁹ 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.

¹⁰ Emissions controlled with a fabric filter (baghouse)

¹¹ Emissions controlled with a wet scrubber (ND indicates there was no data for a PM10 emission factor. Facilities may use the PM emission factor of 0.045 for total PM or use data from the manufacturer or source test data when computing PTE for plants using a wet scrubber.)

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

Pollutant	CO	NO _x	SO ₂ ¹²	PM-10	TOC
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

Emission Factors for Large Diesel Engines more than 600 hp Diesel Fuel, Controlled Emissions¹³

Pollutant	CO	NO _x	SO ₂ ¹⁴	PM-10	TOC
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

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

Pollutant	CO	NO _x	SO ₂ ¹⁵	PM-10	TOC
Emission factor (lb/hp-hr) power output	7.5 E-03	0.018	4.06 E-04S ₁ +9.57	ND	5.29 E-03
Emission factor (lb/MMBtu) fuel input	1.16	2.7	0.05S ₁ + 0.895S ₂	ND	0.8

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

¹² Assumes that all sulfur in the fuel is converted to SO₂. S₁ = % sulfur in fuel oil. For example, if sulfur content is 1.5%, the S = 1.5.

¹³ References 8-26. Controlled NO_x is by ignition timing retard.

¹⁴ Assumes that all sulfur in the fuel is converted to SO₂. S₁ = % sulfur in fuel oil; S₂ = % sulfur in natural gas. For example, if sulfur content is 1.5%, the S = 1.5.

¹⁵ Assumes that all sulfur in the fuel is converted to SO₂. S₁ = % sulfur in fuel oil; S₂ = % sulfur in natural gas. For example, if sulfur content is 1.5%, the S = 1.5.

ALASKA DEPARTMENT OF ENVIRONMENTAL CONSERVATION

Air Permits Program

TECHNICAL ANALYSIS REPORT

for

Air Quality Control Minor General Permit No. 3 for Asphalt Plants

Preparer: Sally A. Ryan, P.E.
Public Comment Draft – June 2, 2008

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INTRODUCTION

This permit is intended for asphalt plants that are required to have a permit because they are classified as needing a minor permit under 18 AAC 50.502(b)(1) (i.e. they have a rated capacity of at least five tons per hour of product).

Asphalt plants often include rock crushers to break down the oversize material to be fed into the process, or to recycle asphalt pavement. An applicant must apply for Minor General Permit 9 for Rock Crushers to operate the rock crusher.

Excluded Facilities

A stationary source is excluded from using this general minor permit if the following applies.

- ▶ The stationary source is subject to a fuel consumption limit or other stationary source-specific requirement established in a construction permit, or air quality control permit under the 18 AAC 50.400 (effective prior to 1/18/97). (This does not include a limit established because a source test was conducted at less than full rated capacity.)

- ▶ The stationary source contains
 - a rock crusher
 - any New Source Performance Review affected facility;
 - a gas turbine;
 - an incinerator;
 - a source subject to any standard in 18 AAC 50.055(a) – (f) other than standards for fuel burning equipment in (a)(1), (a)(4), (b)(1), (b)(5) and (c);
 - open burning at the source any time during the permit term;
 - renovation and demolition activities at the source that would need to comply with the provision of 40 C.F.R., Part 61, Subpart M, Section 145, National Emission Standard for Asbestos, Standard for Demolition and Renovation; or
 - recycling and emissions reduction of Class I and Class II refrigerants at the stationary source (these activities are subject to 40 C.F.R. 82, Subpart F, Section 82.150).

- ▶ The stationary source emits more than 100 tons per year of a regulated air pollutant (i.e. is subject to Title V permitting requirements)

However, if there is a general permit for the activities listed above, the stationary source may operate under both permits.

TECHNICAL ANALYSIS FOR THE PERMIT CONDITIONS

Conditions 1 through 7 - Visible Emissions Standard Requirements

Applicability: Under 18 AAC 50.544(b), for a minor permit classified under 18 AAC 502(b), the Department will include terms and conditions as necessary to ensure the proposed stationary source will meet the requirements of AS 46.14 and 18 AAC 50. This includes terms and conditions for

- installation, use and maintenance of monitoring equipment;
- sampling emissions according to the methods prescribed by the Department, and at locations, intervals and by procedure specified by the Department;
- providing source test reports, monitoring data, emissions data, and information from analyses of any test samples;
- keeping records; and
- making periodic reports on process operations and emissions.

An asphalt plant¹⁶ built after June 11, 1973, may not reduce visibility through the exhaust effluent by more than 20 percent, as specified in 18 AAC 50.055(a)(4).

Under 18 AAC 50.055(a)(1) all industrial processes and fuel burning equipment may not reduce visibility through the exhaust effluent by more than 20 percent. Therefore the same standard applies to the diesel engines used for power generation for an asphalt plant and to asphalt plants built before June 11, 1973 that applies to the plant built after June 11, 1973.

The visible emissions standard applies to the stationary as well as nonroad diesel engines. (According to 18 AAC 50.100, the emission from nonroad engines are not included when determining the classification of a stationary source or modification, but nothing in 18 AAC 50.100 exempts the nonroad engines from other applicable air pollution control requirements in 18 AAC 50

The frequency of monitoring of visible emissions in condition 2.1 was changed from the Standard Operating Condition to reflect the seasonal nature of asphalt plant operation. Not requiring the first VE reading for six months could allow the diesel engine to operate without a VE reading for the year. The condition was also changed to reflect that a diesel generator at an asphalt plant does not operate on a continuous basis. The new requirement to conduct the first VE reading for the diesel engine within 15 days attempts to ensure the engine's visible emissions are recorded during the operational period of asphalt production. The Department realizes that there is a potential for the asphalt plant to operate less than 15 days, but believes this requirement will protect the public.

¹⁶ In this permit, "asphalt plant" means all asphalt plant equipment (including the aggregate dryer and drum mixer, except the diesel engine and vehicles. .

Reoccurring monitoring for the diesel engine is kept at once per month as asphalt plants generally do not operate long enough to warrant the need for reduced monitoring. This also helps to alleviate missing VE readings by keeping the monitoring requirement simple.

The Smoke/No Smoke requirement in condition 2.2 was revised from the Standard Permit Condition to clarify the requirement that **anytime** smoke is observed they are to begin Method 9 observations or take corrective action to alleviate the smoke.

Factual Basis: Condition 1 requires the Permittee to comply with the visible emission standard applicable to fuel-burning equipment. The Permittee shall not cause or allow the equipment to violate this standard.

Monitoring, recordkeeping, and reporting (MR&R) for the visible emission standard is based on the Standard Operating Permit Condition IX - Visible Emissions and Particulate Matter for Liquid Fired Sources adopted by reference in 18 AAC 50.346. MR&R) requirements are listed in conditions 2 through 7, of the permit.

Monitoring – The visible emissions may be observed by either Method-9 or the Smoke/No Smoke plans as detailed in 2.2. Corrective actions such as maintenance procedures and either more frequent or less frequent testing may be required depending on the results of the observations.

Recordkeeping - The Permittee is required to record the results of all visible emission observations and record any actions taken to reduce visible emissions.

Reporting - The Permittee is required to report: 1) emissions in excess of the Federal and the State visible emissions standard and 2) deviations from permit conditions. The Permittee is required to include copies of the results of all visible emission observations with the stationary source operating report.

Condition 8 Particulate Matter Standard Requirements for Asphalt Plants

Applicability: Under 18 AAC 50.544(b), for a minor permit classified under 18 AAC 502(b), the Department will include terms and conditions as necessary to ensure the proposed stationary source will meet the requirements of AS 46.14 and 18 AAC 50. This includes terms and conditions for

- installation, use and maintenance of monitoring equipment;
- sampling emissions according to the methods prescribed by the Department, and at locations, intervals and by procedure specified by the Department;
- providing source test reports, monitoring data, emissions data, and information from analyses of any test samples;
- keeping records; and
- making periodic reports on process operations and emissions.

An asphalt plant built after June 11, 1973, may not emit PM in excess of 0.04 grains per dry standard cubic foot of exhaust as specified in 18 AAC 50.055(b)(5). (All other asphalt plant are subject to 18 AAC 50.055(b)(1), and may not emit in excess of 0.05 gr/dscf.)

Factual Basis: This condition requires the Permittee to show compliance with the PM standard. For new asphalt plants, testing must be completed in 30 days, or the plant is subject to operation restrictions until the test is completed.

On-going testing must be done at least once every five years. At any time, if the results are close to the standard, the test must be repeated within a year.

Since the PM emission rate will depend on the amount of material processed at any given time, the permit restricts operations to a processing a rate for which a PM source test demonstrated compliance with the PM emission standard during the most recent source test. This is to prevent operating at higher rates that may exceed the limit.

Conditions 9 through 12 – State Emission Standard for PM - Diesel Engines

Applicability: The particulate matter emission standard applies to any diesel engine used for power generation for the asphalt plant.

The PM emissions standard applies to the stationary as well as nonroad diesel engines. (According to 18 AAC 50.100, the emissions from nonroad engines are not included when determining the classification of a stationary source or modification, but nothing in 18 AAC 50.100 exempts the nonroad engines from other applicable air pollution control requirements in 18 AAC 50

Factual Basis: MR&R for the PM emission standard for diesel engines is based on the Standard Operating Permit Condition IX - Visible Emissions and Particulate Matter for Liquid Fired Sources adopted by reference in 18 AAC 50.346.

Conditions 13 and 14 - Sulfur Compound Emissions Standard Requirements

Applicability: Under 18 AAC 50.544(b), for a minor permit classified under 18 AAC 502(b), the Department will include terms and conditions as necessary to ensure the proposed stationary source will meet the requirements of AS 46.14 and 18 AAC 50. This includes terms and conditions for

- installation, use and maintenance of monitoring equipment;
- sampling emissions according to the methods prescribed by the Department, and at locations, intervals and by procedure specified by the Department;
- providing source test reports, monitoring data, emissions data, and information from analyses of any test samples;
- keeping records; and
- making periodic reports on process operations and emissions.

The sulfur emission standard applies to operation of all fuel-burning equipment in the State of Alaska. The SIP standard for sulfur dioxide applies because it is contained in the federally approved SIP dated October 1983.

Factual Basis: The condition requires the Permittee to comply with the sulfur compound emission standard applicable to fuel-burning equipment. The Permittee may not cause or allow the affected equipment to violate this standard.

MR&R for the sulfur compound emissions for asphalt plants and for diesel engines is based on the Standard Operating Permit Condition XI – SO₂ Emissions from Oil Fired Fuel Burning Equipment a adopted by reference in 18 AAC 50.346. Condition 14 specifically addresses fuel from North Slope Topping Plants.

Condition 15 – Used Oil in Diesel Engines

Applicability: The sulfur emission standard applies to operation of all fuel-burning equipment in the State of Alaska.

Factual Basis: The condition requires the Permittee to comply with the sulfur compound emission standard applicable to fuel-burning equipment. The Permittee may not cause or allow the affected equipment to violate this standard.

Sulfur dioxide comes from the sulfur in the liquid, hydrocarbon fuel (e.g. diesel or No. 2 fuel oil). Fuel containing no more than 0.75 percent sulfur by weight will always comply with the emission standard.

Condition 16 - Ambient Air Quality Protection – General Requirements

Applicability: This condition applies to all asphalt plants unless a stricter condition exists in this permit, State Statutes, or Federal Guidelines.

Factual Basis: The Department incorporated the same setback distance requirements as previously established in a 2003 general permit for asphalt plants. The Department established the distances based on a generic air quality modeling analysis it conducted to address public complaints regarding alleged impacts. The Department used the U.S. Environmental Protection Agency's (EPA's) ISCST3 dispersion model. The Department also created a screening meteorological data set, in order to make the analysis applicable for the entire state.

The Department did not update the 2003 analysis with the latest EPA dispersion model (AERMOD) since EPA has not yet released a version that uses screening meteorological data. Therefore, the Department could not conduct an AERMOD analysis that would be representative of the entire state. The Department instead used the best available information, the findings from the circa-2003 modeling analysis, for establishing the ambient air quality requirements in MG3.

The Department established the setback distance requirement in condition 16.1 in order to protect the three hour SO₂ ambient air quality standard. The Department established the setback distance restriction in condition 16.2 to protect the 24-hour PM-10 increment.

As previously noted in the 2003 general permit, the setback distance requirements are based on the best information available to the Department. They do not guarantee that an operation cannot violate the ambient air quality standards or increments, or create a public air quality nuisance. Therefore, the Department included a note that if the operation results in complaints, the complaints will be investigated. The note lists some of the possible outcomes of the investigation. This note is essentially identical to a permit condition that existed in the 2003 general permit. The Department transformed the condition into a note since it was informational only.

Condition 17 – Ambient Air Quality Protection – Additional Restrictions for SO₂ Special Protection Areas

Applicability: This condition only applies to asphalt plants located in the SO₂ Special Protection Areas (Unalaska and Saint Paul) established in 18 AAC 50.025(c).

Factual Basis: The Department established the SO₂ Special Protection Areas due to past demonstrations that the ambient SO₂ air quality standards and increments are threatened. While developing the 2003 general permit for asphalt plants, the Department conducted a modeling analysis to determine whether additional restrictions were needed to protect the standards and increments in these special protection areas. The analysis showed that the asphalt plant would need to operate on highline power rather than from its own diesel-generator. It also showed that if diesel engines are used for another purpose other than electrical power generation then they could not burn fuel with a sulfur content greater than 0.075 percent, by weight. The Department incorporated these restrictions into the 2003 general permit, and is now incorporating them into MG3. If a Permittee would like less stringent restrictions when operating in a SO₂ Special Protection Area, they will need to obtain a minor source specific permit. The application for this permit would need to include a case-specific ambient air quality modeling demonstration.

Condition 18 - Ambient Air Quality Protection – Additional Restrictions for Bells Flats (Kodiak)

Applicability: This condition only applies to asphalt plants that operate at Bells Flats area of Kodiak Island.

Factual Basis: In response to complaints received from the Bells Flat area of Kodiak in circa-2003, the Department conducted a modeling analysis under 18 AAC 50.201 of asphalt plant operations in this area. The analysis showed that asphalt plant emissions should not violated the State’s air quality standards/increments as long as the sulfur content of the liquid fuel did not exceed 0.4 percent (by weight) and the plant operated no more than 13 hours per day. The Department incorporated these limits in the 2003 general permit, and is now incorporating these same limits into the minor general permit.

Monitoring compliance is through fuel and hours of operations records that are already part of this permit.

No Additional Condition for Aleutians West Coastal Resource Service Area

The Department did *not* incorporate the additional conditions established in the 2003 version of General Permit 3 (GP3) for the Aleutians West Coastal Resource Service Area. The conditions incorporated the fuel storage requirements established in the Aleutians West Coastal District Plan. The current version of this Coastal District Plan no longer includes the oil containment enforceable policy. Therefore, the Department did not include a fuel storage requirement for the Aleutians West Coastal Resource Service Area as there is no longer an underlying basis for it.

Conditions 19 - 22, Standard Terms and Conditions

Applicability: Applies because these are standard conditions to be included in all permits.

Factual Basis: These are standard conditions required under 18 AAC 5.0345(a) and (e)-(g) for all operating permits.

Conditions 23, Administration Fees

Applicability: This condition requires the Permittee, owner, or operator to pay administration fees as set out in regulation. Paying administration fees is required as part of obtaining and holding a permit with the department or as a fee for a department action.

Factual Basis: The owner or operator of a stationary source who is required to apply for a permit under AS 46.14.130 shall pay to the department all assessed permit administration fees. The regulations in 18 AAC 50.400-405 specify the amount, payment period, and the frequency of fees applicable to a permit action.

Conditions 24 and 25 - Emission Fees

Applicability: The regulations require all permits to include due dates for the payment of fees and any method the Permittee may use to re-compute assessable emissions.

Factual Basis: These standard conditions require the Permittee to pay fees in accordance with the Department's billing regulations. The billing regulations set the due dates for payment of fees based on the billing date.

The default assessable emissions are emissions of each air pollutant authorized by the permit (AS 46.14.250(h)(1)(A)). Air pollutant means any regulated air pollutant and any hazardous air pollutant. Therefore, assessable emissions under AS 46.14.250(h)(1)(A) means the **potential** to emit any air pollutant identified in the permit, including those not specifically limited by the permit. For example, hydrogen chloride (HCl) emissions from an incinerator are assessable emissions because they are a hazardous air pollutant, even if there is currently no emission limit on HCl for that class of incinerator.

The conditions also describe how the Permittee may calculate **actual** annual assessable emissions based on previous actual annual emissions. According to AS 46.14.250(h)(1)(B), assessable emissions are based on each air pollutant. Therefore, fees based on actual emissions must also be paid on any pollutant emitted whether or not the permit contains any limitation of that pollutant.

This standard condition specifies that, unless otherwise approved by the department, calculations of assessable emission based on actual emissions use the most recent previous calendar year's emissions. Since each current year's assessable emission are based on the previous year, the department will not give refunds or make additional billings at the end of the current year if the estimated emissions and current year actual emissions do not match. The Permittee will normally pay for actual emissions - just with a one-year time lag.

Projected actual emissions may differ from the previous year's actual emissions if there is a change at the stationary source, such as changes in equipment or an emission rate from existing equipment.

The emission factors in the Asphalt Plant Emission Calculation Guide are taken from US EPA publication AP-42 *Compilation of Air Pollutant Emission Factors, Volume I: Stationary Point and Area Sources, Fifth Edition* as adopted by reference in 18 AAC 50035.

The Permittee may use other emission factors as outlined in Asphalt Plant Emission Calculation Guide and Standard Permit Condition I provided those emission factors have been approved by the Department.

If the Permittee does not choose to annually calculate assessable emissions, emissions fees will be based on “potential to emit” (PTE).

The PTE set forth in the condition is based on liquid fuel with a sulfur content of 0.5 percent by weight or fuel gas with a sulfur content of 60 ppm H₂S by volume. If the actual sulfur content of the fuel is greater than these assumptions, the assessable emissions calculations provided by the Permittee should reflect the actual sulfur content. The change in these values may result in SO₂ emissions that could trigger PSD.

The address to submit Emission Fee Estimates was changed from the Standard Permit Condition. This address was changed to reflect the processing center for Emission Fee Estimates.

Condition 26 and 27- Maintenance Requirements and Pollution Control Equipment Reporting

Applicability: Under 18 AAC 50.544(b)(2), for a minor permit classified under 18 AAC 502(b), the Department will include a condition requiring the owner to

- perform regular maintenance considering the manufacturer’s or the operator’s maintenance procedures;
- keep records of any maintenance that would have a significant effect on emissions (the records may be kept in an electronic format); and
- keep a copy of either the manufacturer’s or the operator’s maintenance procedures.

Factual Basis: The permit contains the provision exactly as required by regulation, with additional reporting requirements for pollution control equipment breakdown.

Condition 28, Good Air Pollution Control Practices

Applicability: Good air pollution control practices are applicable to all sources. These conditions also support compliance with opacity and particulate standards by encouraging proper scrubber maintenance and operation.

Factual Basis: 18 AAC 50.346 requires that all permits issued by the State of Alaska contain the provisions of Standard Operating Permit VI – Good Air Pollution

Control Practices unless more specific requirements adequately meet the requirements. In this case the Department has included in the permit more specific requirements as follows.

REQUIREMENTS FOR BAGHOUSES

Many Permittees choose to control PM emission at an asphalt plant using a baghouse. This condition states the minimum frequencies for baghouse inspections, requires that the Permittee monitor the pressure drop across the baghouse, and baghouse outlet temperature, and maintaining these parameters within limits recommended by the manufacturer.

After a run is completed, the baghouse temperature will drop through the range where acid gasses will condense. Corrosion will be minimized if the temperature passes through this range as quickly as possible. Therefore this requirement is to maintain fan operation per the manufacturer's recommendation until the baghouse has been purged. Reducing corrosion will lengthen the life of the baghouse and maintain the integrity of the fabric filter clamps and fasteners.

Monitoring the pressure drop across the baghouse enables the operators to determine how the baghouse is functioning. Baghouse differential pressure (dp) higher than the manufacturer's maximum recommended dp indicates too much buildup on the bags or a blocked hopper. Dp lower than manufacturer's recommendations may indicate that a bag(s) have been damaged. Exit temperature monitoring and differential pressure is included to support this condition.

Equipment can remain idle for six months or more over the winter. Corrosion can occur during that time. The condition is intended to assure that control equipment will be effective when it is needed. These conditions are to be supported by maintenance logs.

REQUIREMENTS FOR WET SCRUBBERS

Some Permittees may choose to control PM emission at an asphalt plant using a wet scrubber. Condition 28.2 states the inspection requirements at the beginning of the operating season if the particulate matter control device is a scrubber.

The stationary source must maintain and operate the scrubber in accordance with the manufacturer's recommendations to include pressure drop, inlet and outlet water temperatures, water flow rate, and water pressure.

Scrubber efficiency is related to proper operation.

Condition 29, Dilution

Applicability: This state regulation applies to the Permittee because the Permittee is subject to emission standards in 18 AAC 50.

Factual Basis: The condition prohibits the Permittee from diluting emissions as a means of compliance with any standard in 18 AAC 50.

Condition 30 – Reasonable Precautions to Prevent Fugitive Dust

Applicability: This condition applies to all asphalt plants. Asphalt plants have a considerable potential for generating fugitive dust. 18 AAC 50.045(d) requires an operator to take reasonable precautions to prevent fugitive dust when handling bulk materials. The condition lists examples of precautions which would be reasonable for this activity, to be used as necessary.

To address site specific differences, the application has to have a dust control plan attached if the plant is to be located within one mile of a business, residence or other inhabited structure. The plan must be specific to any location named in the application. The condition also says that the applicant must revise the plan if requested by the Department. The one mile distance came from a circa-2003 dispersion modeling analysis conducted in support of a previous General Permit for asphalt plants. Modeling predicted that during dry conditions, if precautions are not taken to control emissions from fugitive sources, the 24-hour PM-10 ambient air quality standard could be violated up to a mile away.

The applicant must comply with the plan. Therefore the plan must say what the operator will do and under what circumstances. Otherwise it would not be possible to tell whether the operator is following the plan or not.

Factual Basis: Standard Operating Permit Condition X was not used in this permit as an asphalt plant warrants the need for a specific dust control plan.

Condition 31, Stack Injection

Applicability: Stack injection requirements apply to the stationary source because the stationary source contains a stack or source constructed or modified after November 1, 1982.

Factual Basis: The condition prohibits the Permittee from releasing materials other than process emissions, products of combustion, or materials introduced to control pollutant emissions from a stack (i.e. disposing of material by injecting it into a stack). No specific monitoring for this condition is practical. Compliance is ensured by inspections, because the source or stack would need to be modified to accommodate stack injection.

Condition 32 Air Pollution Prohibited

Applicability: Air Pollution Prohibited requirements apply to all asphalt plants because they will have emissions.

Factual Basis: This condition incorporates the regulation prohibiting air pollution of 18 AAC 50.110, and the corresponding standard condition for monitoring compliance that is adopted in 18 AAC 50.346.

The condition prohibits the Permittee from causing any emission which is injurious to human health or welfare, animal or plant life, or property, or which would unreasonably interfere with the enjoyment of life or property. While the other permit conditions and emissions limitation should ensure compliance with this condition, unforeseen emission impacts can cause violations of this standard. These violations

would go undetected except for complaints from affected persons. Therefore, to monitor compliance, the Permittee must monitor and respond to complaints.

The Permittee is required to report any complaints and injurious emissions. The Permittee must keep records of the date, time, and nature of all complaints received and summary of the investigation and corrective actions undertaken for these complaints and to submit copies of these records upon request of the Department.

The Department will determine whether the necessary actions were taken. No corrective actions are necessary if the complaint is frivolous or there is not a violation of 18 AAC 50.110, however this condition is intended to prevent the Permittee from prejudging that complaints are invalid.

Condition 33 – Maintenance Requirements

Applicability: As described in 18 AAC 50.544(b)(2), applies to all minor permits issued under 18 AAC 50.502(b).

Factual Basis: Maintenance requirements are necessary to ensure the owner/operator maintains the equipment.

Condition 34 - Requested Source Tests

Applicability: Applies because this is a standard condition to be included in all permits.

Factual Basis: The Permittee is required to conduct source tests as requested by the Department. Monitoring consists of conducting the requested source test.

Conditions 35 - 37, Operating Conditions, Reference Test Methods, Excess Air Requirements

Applicability: Apply because the Permittee is required to conduct source tests by this permit.

Factual Basis: The Permittee is required to conduct source test as set out in conditions 35 through 37. These conditions supplement the specific monitoring requirements stated elsewhere in this permit. Compliance monitoring with conditions 35 through 37 consist of the test reports required by condition 42.

Condition 38, Test Exemption

Applicability: Applies when the source exhaust is observed for visible emissions.

Factual Basis: As provided in 18 AAC 50.345(a), 5/03/02, the requirements for test plans, notifications and reports do not apply to visible emissions observations by smoke readers, except in connection with required particulate matter testing.

Conditions 39 through 42 - Test Deadline Extension, Test Plans, Notifications and Reports

Applicability: Apply because the Permittee is required to conduct source test by this permit.

Factual Basis: Standard conditions 18 AAC 50.345(l) - (o) are incorporated through these conditions. These standard conditions supplement specific monitoring

requirements stated elsewhere in this permit. The source test itself monitors compliance with this condition.

Condition 43, Recordkeeping Requirements

Applicability: Applies because the Permittee is required by the permit to keep records.

Factual Basis: The condition restates the regulatory requirements for recordkeeping, and supplements the recordkeeping defined for specific conditions in the permit. The records being kept provide an evidence of compliance with this requirement.

Condition 45, Certification

Applicability: This is a standard condition to be included in all permits. Applies because every permit requires the Permittee to submit reports.

Factual Basis: This condition requires the Permittee to certify all reports submitted to the Department. To ease the certification burden on the Permittee, the condition allows the excess emission reports to be **certified** with the stationary source report, even though it must still be **submitted** more frequently than the stationary source operating report. This condition supplements the reporting requirements of this permit.

Condition 46 - Submittals

Applicability: Applies because the Permittee is required to send reports to the department.

Factual Basis: This condition requires the Permittee to send submittals to the address specified in this condition. Receipt of the submittal at the correct department office is sufficient monitoring for this condition. This condition supplements the reporting requirements of this permit.

Condition 47, Information Requests

Applicability: Applies to all Permittees, and incorporates a standard condition.

Factual Basis: This condition incorporates a standard condition in regulation, which requires the Permittee to submit information requested by the Department. Monitoring consists of receipt of the requested information.

Condition 48, Excess Emission and Permit Deviation Reports

Applicability: Applies when the emissions or operations deviate from the requirements of the permit.

Factual Basis: This condition satisfies two state regulations related to excess emissions - the technology-based emission standard regulation and the excess emission regulation. Although there are some differences between the regulations, the condition satisfies the requirements of each regulation.

In accordance with 40 CFR 71.6(a)(3)(iii)(C), a deviation is not always a violation. For a situation lasting more than 24 hours, which constitutes a deviation, each 24-hour period is considered a separate deviation. “Deviation” as defined in 40 CFR 71

means both “excess emission” and “permit deviation” as used in this permit, which includes:

1. a situation where emissions exceed an emission limitation or standard;
2. a situation where process or emissions control device parameter values indicate that an emission limitation or standard has not been met;
3. a situation in which observations or data collected demonstrate noncompliance with an emission limitation or standard or any work practice or operating condition required by the permit (including indicators of compliance revealed through parameter monitoring);
4. a situation in which any testing, monitoring, recordkeeping or reporting required by this permit is not performed or not performed as required;
5. a situation in which an exceedance or an excursion, as defined in 40 CFR Part 64, occurs; and,
6. failure to comply with a permit term that requires submittal of a report.

In accordance with 18 AAC 50.990(34) “excess emissions” means emissions of an air pollutant in excess of any applicable emission standard or limitation which is item 1 of the above definitions from 40 CFR 71. These definitions shall be considered in determining an “excess emissions” or “permit deviation” when reporting an occurrence using the ADEC notification form.

The reports themselves and the other monitoring records required under this permit provide monitoring of whether the Permittee has complied with the condition.

Section 11, Notification Form

The Department modified the notification form, deviating from standard permit condition IV, to more adequately meet the requirements of Chapter 50, Air Quality Control. The modification consisted of correcting typos and moving failure to monitor/report and recordkeeping to Section 2, permit deviations.

Condition 49, Operating Reports

Applicability: Applies to all permits.

Factual Basis: The condition restates the requirements for reports listed in regulation. The condition supplements the specific reporting requirements elsewhere in the permit. The reports themselves provide monitoring for compliance with this condition.

A modification of the Standard Permit Condition VII was added to provide clarification of transition periods between an expiring permit and a renewal permit to ensure that the Permittee reports against the permit terms and conditions of the permit that was in effect during those partial date periods of the transition. No format is specified: the Permittee may provide one report accounting for each permit term or condition and the effective permit at that time, or may chose to provide two reports – one accounting for reporting elements of permit terms and conditions from the end date of the previous operating report until the date of expiration of the old permit, and

a second operating report accounting for reporting elements of terms and conditions in effect from the effective date of the renewal permit until the end of the reporting period.

This condition was further modified to allow the Permittee to submit one of the required two copies of the report electronically in lieu of paper. This change more adequately meets the requirements of 18 AAC 50 and agency needs provided the electronic version is compatible with ADEC software, as the Department can more efficiently distribute the electronic copy to staff in other locations.

Conditions 50 through 53, General Compliance Requirements

Applicability: Applies because these are standard conditions to be included in all permits.

Factual Basis: These are standard conditions for compliance required for all operating permits.

Attachment 1 Emission Reporting and Emission Fee Estimate

Submit the following information to the Department no later than March 31st of each year at:

ADEC Air Permits
 610 University Avenue
 Fairbanks, Alaska 99709- 3643

Or

FAX to (907) 451-2187

Or

Email to: DEC.AQ.Airreports@alaska.gov
(if emailed, report must be signed and certified in accordance with 18 AAC 50.345(j).)

Or

Submit emissions online at the following website:
(Website reporting for emission fee estimates is not yet available)

Stationary source Name _____

Permit Number _____

Date: _____

Emission Fee Estimate for _____
 (State fiscal year)

Table 1 Total Emissions & Assessable Emission Fee Estimate

Pollutant	Asphalt Plant	Diesel Generator	Assessable Emissions
NO _x			
CO			
SO _x			
PM-10			
VOC		N/A	
TOC	N/A		

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

Printed Name

Title