

Facility Name \_\_\_\_\_

Initial \_\_\_\_\_

Permit Number (Dept use only) \_\_\_\_\_



### Iowa Department of Natural Resources Air Quality Construction Permit For a Hot Mix Asphalt Plant

#### Permit Holder

Firm: \_\_\_\_\_

Contact: \_\_\_\_\_ Responsible Party: \_\_\_\_\_

(name)

(title)

(telephone)

(email address)

(street)

(city, state, zip)

#### Permitted Equipment

Facility Name: \_\_\_\_\_

Is the Equipment Portable?  Yes  No

Equipment Location or Staging Area (if portable): \_\_\_\_\_ (street)  
\_\_\_\_\_ (city, state, zip)  
\_\_\_\_\_ (county)

Permit No.	Project No.	Description	Date	Testing
				<b>NSPS I</b>

Plant Number: \_\_\_\_\_

\_\_\_\_\_  
Under the direction of the Director of the  
Department of Natural Resources

For Department Use Only

### Facility Covered by this Permit

This permit is only applicable to a “hot mix asphalt facility” <sup>(1)</sup> not otherwise excluded <sup>(2)</sup>.

(1) *Hot mix asphalt facility*, for the purposes of this permit, means any stationary or portable drum mix plant producing hot or warm mix asphalt <sup>(3)</sup>. Excluding exempt equipment, these plants are comprised only of a combination of the following systems:

- A. Systems for drying aggregate.
- B. Systems for receiving, storing, and transferring virgin aggregate.
- C. Systems for receiving, screening, storing and transferring non-virgin aggregate.
- D. Systems for receiving, screening, storing and transferring mineral filler, reclaimed asphalt pavement (RAP) and recycled asphalt shingles (RAS).
- E. Systems for receiving, storing, and transferring asphalt cement.
- F. Systems for mixing aggregate with asphalt cement.
- G. Systems for the storing and dispensing of hot mix asphalt.
- H. Systems for the storing and dispensing asphalt cement and fuel.
- I. Associated emission control systems.
- J. Systems for the loading, transfer, and storage of materials used or produced by emission control systems.
- K. Power sources used solely to operate the systems noted above (such as diesel generators and hot oil heaters)
- L. Incidental heating and materials storage associated with the operation of the systems noted above.

(2) *Excluded facilities* means any of the following systems which shall not be permitted by this general permit:

- A. A hot mix asphalt facility at which crushing or grinding of nonmetallic minerals occurs, including that embedded in reclaimed asphalt pavement (RAP).
- B. A batch mix asphalt plant.
- C. A hot mix asphalt plant already subject to an existing air quality construction or operating permit unless those permits are revoked concurrently with the start of coverage under this permit for the facility.
- D. A hot mix asphalt facility located in Polk or Linn County or portable facility relocating to Polk or Linn County.
- E. Any plant subject to 567—rule 33.3(455B) (Special construction permit requirements for major stationary sources in areas designated attainment or unclassified (PSD)) or rule 31.1(455B) (Permit requirements relating to nonattainment areas) is not eligible for coverage under this permit.
- F. A hot mix asphalt facility that is located on the same property at which emission sources are covered by an air quality construction permit, other than another hot mix asphalt plant, aggregate processing plant, liquid storage tanks, or concrete batch plant. The hot mix asphalt facility shall be separated from the other hot mix asphalt plant, aggregate processing plant, or concrete batch plant by the setback distances required in Section 14.2.

(3) “*Hot mix asphalt*” means a material made from a mixture of aggregate and liquid asphalt cement.

**Type of Facility Being Permitted**

Drum mix, hot mix asphalt plants using this template are subject to only one of the six categories of operating conditions listed below. Each category is based on a specific set of operational conditions particular to the plant being permitted. Therefore, please select a set of operating conditions from the list below that you will comply with and follow all of the corresponding operating limits in Section 14.2 of this permit. The general requirements in Section 14.1 apply to all hot mix asphalt plant using this template.

<b>Dryer Fuel Type, Control Equipment on Truck Loadout, and Asphalt Mix Temperature Designation</b>	<b>Operating Limits and Requirements</b>
<input type="checkbox"/> Facilities Combusting Liquid or Gaseous Fuels in the Dryer, without Control on the Truck Loadout, and Producing Hot Mix Asphalt at a Mix Temperature at or below 325 Degrees Fahrenheit.	General Requirements and Section 14.2"a" "i"
<input type="checkbox"/> Facilities Combusting Liquid or Gaseous Fuels in the Dryer, without Control on the Truck Loadout, and Producing Hot Mix Asphalt at a Mix Temperature at or below 340 Degrees Fahrenheit.	General Requirements and Section 14.2"a" "ii"
<input type="checkbox"/> Requirements for Facilities Combusting Liquid or Gaseous Fuels in the Dryer, with Control on the Truck Loadout.	General Requirements and Section 14.2"b"
<input type="checkbox"/> Requirements for Facilities Combusting Only Gaseous Fuels in the Dryer, without Control on Truck Loadout, Producing Hot Mix Asphalt at a Mix Temperature at or below 325 Degrees Fahrenheit.	General Requirements and Section 14.2"c" "i"
<input type="checkbox"/> Requirements for Facilities Combusting Only Gaseous Fuels in the Dryer, without Control on Truck Loadout, Producing Hot Mix Asphalt at a Mix Temperature at or below 340 Degrees Fahrenheit.	General Requirements and Section 14.2"c" "ii"
<input type="checkbox"/> Facilities Combusting Only Gaseous Fuels in the Dryer, with Control on Truck Loadout	General Requirements and Section 14.2"d"

**Permittee Certification**

I certify that, based on information and belief formed after reasonable inquiry, the enclosed documents including the attachments are true, accurate, and complete and that legal entitlement to install and operate the equipment covered by the permit application and on the property identified in the permit application has been obtained.

I certify that this permit, as drafted, is for (and only for) a "hot mix asphalt plant" not otherwise "excluded" as noted below. I certify that there are no physical or chemical characteristics or pollutants in the air contaminants emitted for this facility which are atypical of this type of facility.

I certify that the terms and conditions of this permit will be met at all times.

Responsible Party – Signature \_\_\_\_\_

Title \_\_\_\_\_ Date \_\_\_\_\_



## PERMIT CONDITIONS

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### 1. Departmental Review

This permit is issued based on information submitted by the applicant. Any misinformation, false statements or misrepresentations by the applicant or by the applicant's representative(s) shall cause this permit to be void. In addition, the applicant may be subject to criminal penalties according to Iowa Code Section 455B.146A.

This permit is issued under the authority of 567 Iowa Administrative Code (IAC) 22.3. The proposed equipment has been evaluated for conformance with Iowa Code Chapter 455B; 567 IAC Chapters 20 – 35; and 40 Code of Federal Regulations (CFR) Parts 51, 52, 60, 61, and 63 and has the potential to comply.

No review has been undertaken on the engineering aspects of the equipment or control equipment other than the potential of that equipment for reducing air contaminant emissions. The Department assumes no liability, directly or indirectly, for any loss due to damage to persons or property caused by, resulting from, or arising out of the design, installation, maintenance or operation of the proposed equipment.

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### 2. Owner and Operator Responsibility

This permit is for the construction and operation of specific emission unit(s), control equipment, and emission point as described in this permit and in the application for this permit. The permit holder, owner, and operator of the facility shall assure that the installation of the equipment listed in this permit conforms to the design in the application (i.e. type, maximum rated capacity, etc.). No person shall construct, install, reconstruct or alter this emission unit(s), control equipment, or emission point without the required amended permit.

Any owner or operator of the specified emission unit(s), control equipment, or emission point, including any person who becomes an owner or operator subsequent to the date on which this permit is issued, is responsible for assuring that the installation, operation, and maintenance of the equipment listed in this permit is in compliance with the provisions of this permit and all other applicable requirements.

The owner or operator of any emission unit or control equipment shall maintain and operate the equipment and control equipment at all times in a manner consistent with good practice for minimizing emissions, as required by paragraph 567 IAC 24.2(1) "*Maintenance and Repair*".

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### 3. Transferability

As limited by 567 IAC 22.3(3)"f", this permit is not transferable from one location to another or from one piece of equipment to another, unless the equipment is portable. When portable equipment for which a permit has been issued is to be transferred from one location to another, the Department shall be notified in writing at least seven (7) days prior to transferring to the new location unless the equipment will be located in an area which is classified as nonattainment for the National Ambient Air Quality Standards (NAAQS) or is a maintenance area for the NAAQS in which case notification shall be given fourteen (14) days prior to the relocation of equipment<sup>1</sup> (See Permit Condition 8.A.2). The owner or operator will be notified at least ten (10) days prior to the scheduled relocation if the relocation will cause a violation of the (NAAQS). In such case, a supplemental permit shall be required prior to the initiation of construction of additional control equipment or modifications to equipment needed to meet the standards.

<sup>1</sup>A list of nonattainment areas and maintenance areas for the NAAQS can be obtained from the Department.

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### 4. Construction

#### A. General Requirements

It is the owner's responsibility to ensure that construction conforms to the final plans and specifications as submitted, and that adequate operation and maintenance is provided to ensure that no condition of air pollution is created.

In permit amendments, all provisions of the original permit remain in full force and effect unless they are specifically changed by the permit amendment. If a proposed project is not timely completed, the owner or operator shall seek a permit amendment in order to revert back to the most recent previous version of the permit. The previous, unchanged permit provisions are included in the amendment for your convenience only and are unappealable.

This permit or amendment shall become void if any one of the following conditions occurs:

- (1) the construction or implementation of the proposed project, as it affects the emission point permitted herein, is not initiated within eighteen (18) months after the permit issuance date; or
- (2) the construction or implementation of the proposed project, as it affects the emission point permitted herein, is not completed within thirty-six (36) months after the permit issuance date; or
- (3) the construction or implementation of the proposed project, as it affects the emission point permitted herein, is not completed within a time period specified elsewhere in this permit.

**B. Changes to Plans and Specifications**

The owner or operator shall amend this permit or amendment prior to startup of the equipment if:

- (1) Any changes are made to the final plans and specifications submitted for the proposed project; or
- (2) This permit becomes void.

Changes to the final plans and specification shall include changes to plans and specifications for permitted equipment and control equipment and the specified operation thereof.

**C. Amended Permits**

The owner or operator may continue to act under the provisions of the previous permit for the affected emission unit(s) and emission point, together with any previous amendment to the permit, until one of the following conditions occurs:

- (1) The proposed project authorized by this amendment is completed as it affects the emission unit(s) and emission point permitted herein; or
- (2) This current amendment becomes void.

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## 5. Credible Evidence

As stated in 567 IAC 21.5 and also in 40 CFR Part §60.11(g), where applicable, any credible evidence may be used for the purpose of establishing whether a person has violated or is in violation of any provisions specified in this permit or any provisions of 567 IAC Chapters 20 through 35.

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## 6. Excess Emissions

Per 567 IAC 24.1(1), excess emissions during a period of startup, shutdown, or cleaning of control equipment are not a violation of the emission standard if it is accomplished expeditiously and in a manner consistent with good practice for minimizing emissions except when another regulation applicable to the unit or process provides otherwise. Cleaning of control equipment, which does not require the shutdown of process equipment, shall be limited to one (1) six-minute period per one (1) hour period.

An incident of excess emissions other than the above is a violation and may be subject to criminal penalties according to Iowa Code 455B.146A. If excess emissions are occurring, either the control equipment causing the excess shall be repaired in an expeditious manner, or the process generating the emissions shall be shutdown within a reasonable period of time, as specified in 567 IAC 24.1.

An incident of excess emissions shall be orally reported by telephone, electronic mail or in person to the appropriate field office within eight (8) hours of, or at the start of, the first working day following the onset of the incident (See Permit Condition 8.B.1). A written report of an incident of excess emissions shall be submitted as a follow-up to all required initial reports within seven (7) days of the onset of the upset condition (See Permit Condition 8.B.2).

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## 7. Permit Violations

Knowingly committing a violation of this permit may carry a criminal penalty of up to \$10,000 per day fine and two (2) years in jail according to Iowa Code Section 455B.146A.

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## 8. Notification, Reporting, and Recordkeeping

A. The owner or operator shall furnish the Department the following written notifications:

- (1) Per 567 IAC 22.3(3)"b":
  - (a) The date construction, installation, or alteration is initiated postmarked within thirty (30) days following initiation of construction, installation, or alteration;
  - (b) The actual date of startup, postmarked within fifteen (15) days following the start of operation;
- (2) Per 567 IAC 22.3(3)"f", when portable equipment for which a permit has been issued is to be transferred from one location to another, the Department shall be notified:

- (a) at least fourteen (14) days before equipment relocation if the equipment will be located in a nonattainment area for the National Ambient Air Quality Standards (NAAQS) or a maintenance area for the NAAQS;
  - (b) at least seven (7) days before equipment relocation.
- (3) Per 567 IAC 22.3(8), a new owner shall notify the Department of the transfer of equipment ownership within thirty (30) days of the occurrence. The notification shall be mailed to:

Air Quality Bureau  
Iowa Department of Natural Resources  
502 E 9<sup>th</sup> St  
Des Moines IA 50319

and include the following information:

- The date of ownership change,
  - The name, address, and telephone number of the responsible official, the contact person, and the owner of the equipment both before and after the ownership change; and
  - The construction permit number(s) of the equipment changing ownership.
- (4) Unless specified per a federal regulation, notification of each compliance test required by Permit Condition 12 shall be done not less than thirty (30) days before the required test or performance evaluation of a continuous emission monitor [567 IAC 25.1(7)]. The notification shall include:
- the time,
  - the place,
  - the name of the person who will conduct the tests,
  - and other information as required by the Department;

If the owner or operator does not provide timely notice to the Department, the Department shall not consider the test results or performance evaluation results to be a valid demonstration of compliance with the applicable rules or permit conditions. Upon written request, the Department may allow a notification period of less than thirty (30) days.

- B. The owner or operator shall furnish the Department with the following reports:
- (1) Per 567 IAC 24.1(2), an incident of excess emissions as defined in 567 IAC 20.2 shall be reported within eight (8) hours or at the start of the first working day following the onset of the incident. The report may be made by electronic mail, in person or by telephone.
  - (2) Per 567 IAC 24.1(3), a written report of an incident of excess emissions as defined in 567 IAC 20.2 shall be submitted as a follow-up to all required initial reports to the Department within seven (7) days of the onset of the upset condition.
  - (3) Operation of this emission unit(s) or control equipment outside of those operating parameters specified in Permit Condition 14 in accordance to the schedule set forth in 567 IAC 24.1.
  - (4) Per 567 IAC 25.1(6), the owner or operator of any facility required to install a continuous monitoring system or systems shall provide quarterly reports to the Director, no later than thirty (30) calendar days following the end of the calendar quarter, on forms provided by the Director.
  - (5) Per 567 IAC 25.1(7), a written compliance demonstration report for each compliance testing event, whether successful or not, postmarked not later than six (6) weeks after the completion of the test period unless other regulations provide for other notification requirements. In that case, the more stringent reporting requirement shall be met;
- C. All data, records, reports, documentation, construction plans, and calculations required under this permit shall be available at the plant during normal business hours for inspection and copying by federal, state, or local air pollution regulatory agencies and their authorized representatives, for a minimum of two (2) years from the date of recording unless otherwise required by another applicable law (i.e. NSPS, NESHAP, etc.)
- D. The owner or operator shall send correspondence regarding this permit to the following address:
- Construction Permit Supervisor  
Air Quality Bureau  
Iowa Department of Natural Resources  
502 E 9<sup>th</sup> St

Des Moines IA 50319  
 Telephone: (515) 725-9549  
 Fax: (515) 725-9501

E. The owner or operator shall send correspondence concerning stack testing to:

Stack Testing Coordinator  
 Air Quality Bureau  
 Iowa Department of Natural Resources  
 502 E 9<sup>th</sup> St  
 Des Moines IA 50319  
 Telephone: (515) 725-9545  
 Fax: (515) 725-9502

F. The owner or operator shall send reports and notifications to:

Compliance Unit Supervisor  
 Air Quality Bureau  
 Iowa Department of Natural Resources  
 502 E 9<sup>th</sup> St  
 Des Moines IA 50319  
 Telephone: (515) 725-9550  
 Fax: (515) 725-9502

**9. Appeal Rights**

All conditions within an original permit may be appealed, subject to the appeal rights set forth in 561 IAC Chapter 7. Amended conditions within a permit amendment may be appealed, subject to the appeal rights set forth in 561 IAC Chapter 7. In permit amendments, all provisions of the original permit remain in full force and effect unless they are specifically changed by the permit amendment. The previous, unchanged permit provisions are included in the amendment for your convenience only and are unappealable.

Per 561 IAC 7.4(1), the owner or operator shall file any written notice of appeal within thirty (30) days of receipt of the issued permit. The written notice of appeal shall be filed with the Director of the Department with a copy to the Legal Services Bureau Chief at the following addresses:

Director  
 Iowa Department of Natural Resources  
 502 E 9<sup>th</sup> St  
 Des Moines IA 50319

Bureau Chief - Legal Services  
 Iowa Department of Natural Resources  
 502 E 9<sup>th</sup> St  
 Des Moines IA 50319

**10. Emission Limits**

The following emission limits shall not be exceeded:

Pollutant	lb/hr <sup>(1)</sup>	tons/yr <sup>(2)</sup>	Additional Limits	Reference (567 IAC)
Particulate Matter (PM) – Federal	NA	NA	0.04 gr/dscf <sup>(3)</sup>	23.1(4)"cf" <sup>(11)</sup>
Particulate Matter (PM) - State	NA	NA	0.15 gr/scf <sup>1(4)</sup>	23.4(2)
Particulate Matter (PM) - State	NA	NA	0.1 gr/dscf <sup>(5)</sup>	23.3(2)"a"
			0.6 lb/MMBtu <sup>(6)</sup>	23.3(2)"b"
Opacity	NA	NA	20% <sup>(3)</sup>	23.1(4)"cf" <sup>(10)</sup>
			40% <sup>(7)(8)</sup>	23.3(2)"d"
Sulfur Dioxide (SO <sub>2</sub> )	NA	NA	2.5 lb/MMBtu <sup>(9)</sup>	23.3(3)"b"
			500 ppm <sub>v</sub> <sup>(10)</sup>	23.3(3)"e"

<sup>(1)</sup>Standard is expressed as the average of 3 runs.

<sup>(2)</sup>Standard is a 12-month rolling total.

<sup>(3)</sup>These standards apply to all affected facilities, as specified in 40 CFR §60.90 NSPS Subpart I.

<sup>(4)</sup>This standard applies to all facilities not subject to 40 CFR §60.90 NSPS Subpart I.

<sup>(5)</sup>This standard applies to all emission units from the hot mix asphalt plant except those units used for indirect heating, power generation, or subject to the emission standards in 567 IAC 23.4(2) or 40 CFR §60.92 NSPS Subpart I.

<sup>(6)</sup>This standard applies to those emission units used for indirect heating.

<sup>(7)</sup>An exceedance of the indicator opacity of (10%) will require the owner/operator to promptly investigate the emission unit and make corrections to operations or equipment associated with the exceedance. If exceedances continue after corrections, the DNR may require additional proof to demonstrate compliance (e.g., stack testing).

<sup>(8)</sup>The facility shall take all reasonable precautions to prevent the discharge of visible emissions of fugitive dust beyond the lot line of property on which the plant is located. A list of reasonable precautions is detailed in Section 16.

<sup>(9)</sup>This standard applies to the emissions of sulfur dioxide from the use of liquid fuels.

<sup>(10)</sup>This standard applies to all other processes, other than from the use of liquid fuels, that are capable of emitting sulfur dioxide.

Iowa adoption of New Source Performance Standards (NSPS) Subpart I – Standards of Performance for Hot Mix Asphalt Facilities (40 CFR §60.90 through 40 CFR §60.93).

### 11. Emission Unit Characteristics

The number of emission units at the plant shall conform to the following list.

#### Maximum number of Emission Units.

- A. Any number of storage piles for cold aggregate.
- B. Any number of cold aggregate bins and conveyers; only one (1) front end loader may be used to load the cold aggregate bins at any one time, and only one (1) conveyor system may be used to transport aggregate to the dryer at any one time.
- C. Any number of RAP bins and conveyers; only one (1) front end loader may be used to load the RAP bins at any one time, and only one (1) conveyor system may be used to transport RAP to the dryer at any one time.
- D. A maximum of three (3) screens.
- E. A maximum of ten (10) transfer points located between the cold aggregate bins and the dryer.
- F. A maximum of one (1) dryer. The dryer shall have a maximum heat input rating of 150.0 million Btu per hour or less.
- G. Any number of material storage tanks.
- H. Any number of silos or bins and conveyers used to transport and store hot mix asphalt; only one (1) silo or bin may be loaded at any one time, and only one (1) conveyor system may be used to transport hot mix asphalt to the silos or bins at any one time.
- I. A maximum of one (1) truck loadout point for hot mix asphalt shall be used at any one time.
- J. A maximum of one (1) hot oil heater may be located at the plant. The heater shall have a maximum heat input rating of 5.0 million Btu.
- K. A maximum of one (1) electric diesel generator with a brake horsepower (bhp) rating of less than 1350 measured at the shaft may be used to power the plant.

It shall be the owner's responsibility to ensure that construction conforms to the emission unit characteristics stated above. A hot mix asphalt plant not meeting all of the requirements described above shall apply for a permit to construct as outlined in 567 IAC 22.1(3).

### 12. Compliance Demonstration(s)

Pollutant	Compliance Demonstration	Compliance Methodology	Frequency
PM – Federal	Yes	Performance Testing <sup>(1)</sup>	Once
PM – State	No	NA	NA
PM <sub>10</sub>	No	NA	NA
PM <sub>2.5</sub>	No	NA	NA
Opacity	Yes	Performance Testing <sup>(1)</sup>	Once
SO <sub>2</sub>	No	NA	NA

<sup>(1)</sup>A hot mix asphalt facility commencing construction or modification after June 11, 1973, shall comply with all stack testing requirements of New Source Performance Standards (NSPS) Subpart I – Standards of Performance for Hot Mix Asphalt Facilities, as adopted by reference in 567 IAC 23.1(2)"f." All affected sources subject to the standards in 40 CFR §60.92 shall be tested according to the methods and procedures in 40 CFR §60.93.

**If an initial compliance demonstration specified above is testing**, the owner or the owner's authorized agent shall verify compliance with the emission limitations contained in Permit Condition 10 within sixty (60) days after achieving

maximum production rate and no later than one hundred eighty (180) days after the initial startup date of the proposed equipment.

**If subsequent testing is specified above**, the owner or the owner's authorized agent shall verify compliance with the emission limitations contained in Permit Condition 10 according to the frequency and timeframe noted above.

If testing is required, the owner or the owner's authorized agent shall use the test method and run time listed in the table below unless another testing methodology is approved by the Department prior to testing.

Pollutant	Test Run Time	Test Method
PM – Federal	1 hour	40 CFR 60, Appendix A, Method 5
PM – State	1 hour	40 CFR 60, Appendix A, Method 5 40 CFR 51 Appendix M Method 202
PM <sub>10</sub>	1 hour	40 CFR 51, Appendix M, 201A with 202
PM <sub>2.5</sub>	1 hour	40 CFR 51, Appendix M, 201A with 202
Opacity	1 hour	40 CFR 60, Appendix A, Method 9
SO <sub>2</sub>	1 hour	40 CFR 60, Appendix A, Method 6C

Each emissions compliance test must be approved by the Department. Unless otherwise specified by the Department, each test shall consist of three (3) separate runs. The arithmetic mean of three (3) acceptable test runs shall apply for compliance, unless otherwise indicated by the Department.

Per 567 IAC 25.1(7)"a", at the Department's request, a pretest meeting shall be held not later than fifteen (15) days before the owner or operator conducts the compliance demonstration. A testing protocol shall be submitted to the Department no later than fifteen (15) days before the owner or operator conducts the compliance demonstration. Representatives from the Department shall attend this meeting, along with the owner and the testing firm, if any. It shall be the responsibility of the owner to coordinate and schedule the pretest meeting. A representative of the Department shall be allowed to witness the test(s). The Department shall reserve the right to impose additional, different, or more detailed testing requirements.

The owner shall be responsible for the installation and maintenance of test ports. The unit(s) being sampled shall be operated in a normal manner at its maximum continuous output as rated by the equipment manufacturer, or the rate specified by the owner as the maximum production rate at which this unit(s) will be operated. In cases where compliance is to be demonstrated at less than the maximum continuous output as rated by the manufacturer, and it is the owner's intent to limit the capacity to that rating, the owner may submit evidence to the Department that this unit(s) has been physically altered so that capacity cannot be exceeded, or the Department may require additional testing, continuous monitoring, reports of operating levels, or any other information deemed necessary by the Department to determine whether this unit(s) is in compliance.

### 13. NSPS and NESHAP Applicability

Hot mix asphalt facilities<sup>1</sup> that were constructed or modified after June 11, 1973, are subject to the requirements of New Source Performance Standards (NSPS) Subpart I – Standards of Performance for Hot Mix Asphalt Facilities (40 CFR §60.90 through 40 CFR §60.93) and to the applicable provisions of NSPS Subpart A - General Provisions (40 CFR §60.1 through 40 CFR §60.19), which was adopted by reference in IAC 567—paragraph 23.1(2)"f".

<sup>1</sup>A hot mix asphalt facility is comprised of the following: dryers, systems for screening, handling, storing, and weighing hot aggregate; systems for loading, transferring, and storing mineral filler, systems for mixing hot asphalt; and the loading, transfer, and storage systems associated with emission control systems. (40 CFR 60.90(a))

Storage tanks of petroleum liquids may also be subject to the requirements of one of three NSPS subparts as follows:

- NSPS Subpart K: Storage tanks were constructed, reconstructed or modified after June 11, 1973 and prior to May 19, 1978 and have a minimum storage capacity of 40,000 gallons.
- NSPS Subpart Ka: Storage tanks were constructed, reconstructed or modified after May 18, 1978 and prior to July 23, 1984 and have a minimum storage capacity of 40,000 gallons.
- NSPS Subpart Kb: Storage tanks were constructed, reconstructed or modified after July 23, 1984 and have a minimum storage capacity of 19,813 gallons.

Stationary diesel internal combustion engines may be subject to the New Source Performance Standards (NSPS) Subpart IIII – Standards of Performance for Stationary Compression Ignition Internal Combustion Engines (40 CFR §60.4200 through 40 CFR §60.4219) (IAC 23.1(2)“yyy”) and to NSPS Subpart A - General Provisions (40 CFR §60.1 through 40 CFR §60.19). If the engine is portable and does not meet the definition of a *Stationary internal combustion engine* from §60.4219, it is not subject to NSPS Subpart IIII.

Hot mix asphalt plants are not of the source type subject to any subpart of the National Emission Standards for Hazardous Air Pollutants (NESHAP).

Stationary diesel internal combustion engines may also be subject to the National Emission Standards for Hazardous Air Pollutants (NESHAP) Subpart ZZZZ - Stationary Reciprocating Internal Combustion Engines (40 CFR §63.6580 through 40 CFR §63.6675) (IAC 23.1(4)“cz”) and to NESHAP Subpart A - General Provisions (40 CFR §63.1 through 40 CFR §63.15). Engines that are in compliance with NSPS Subpart IIII comply with Subpart ZZZZ, in accordance with §63.6590 (c), and no further requirements apply to this engine under Subpart ZZZZ. If the engine is portable and does not meet the definition of a *Stationary internal combustion engine* from §63.6675, it is not subject to NESHAP Subpart ZZZZ.

Failure to include any NSPS or NESHAP requirements as a part of this permit does not relieve the permittee from the obligation to comply with all applicable requirements.

**14. Operating Limits**

This facility shall follow all of the general requirements in section 14.1 *and* the operating limits in one of the six specific categories of section 14.2. The permittee shall choose the category of limits based on the specific operating conditions particular to this plant, as listed in section 14.2 and designated on page three of this permit.

**1) General Requirements for all Hot Mix Asphalt Plants**

- A. The owner or operator shall operate and maintain all process, control, and monitoring equipment according to manufacturer’s specifications and maintenance schedules.
- B. In accordance with 567 IAC 23.3(2)“b”, the owner or operator shall take reasonable precautions to prevent the discharge of visible emissions of fugitive dust beyond the lot line of the property on which the plant is located. This includes emissions from plant haul roads, storage piles, and material transfer points.
- C. The owner or operator shall control the particulate matter emissions from the dryer with a baghouse.
- D. The discharge style for the dryer baghouse, hot oil heater, and generator exhaust stacks (emission points) must be vertical unobstructed.
- E. The owner or operator shall not produce more than 450 tons of hot mix asphalt per hour or more than 400,000 tons of hot mix asphalt per 12-month rolling period.
- F. The total amount of liquid fuel (fuel oil, diesel fuel, used oil, or residual fuel) combusted in the dryer shall not exceed 3,300,000 gallons per rolling 12-month period.
- G. The maximum sulfur content of any #3, #4, #5, or #6 fuel oil, used oil, or residual fuel (blends of used oil and #6 fuel oil) combusted in the dryer shall be equal to or less than 0.8% by weight.
- H. Any used oil combusted in the dryer shall not exceed the limits specified in Table 1 of 40 CFR 279.11 as amended on May 3, 1993 (reproduced below) using analytical methods specified pursuant to 40 CFR Part 279<sup>1</sup>.

<u>Constituent/property</u>	<u>Allowable level</u>
Arsenic	5 ppm maximum
Cadmium	2 ppm maximum
Chromium	10 ppm maximum
Lead	100 ppm maximum
Flash point	100 degrees F, minimum
Total halogens	4,000 ppm maximum <sup>2</sup>

<sup>1</sup>The specification does not apply to mixtures of used oil and hazardous waste that continue to be regulated as hazardous waste (see Section 279.10(b)).

<sup>2</sup>Used oil containing more than 1000 ppm total halogens is presumed to be a hazardous waste under the rebuttal presumption provided under Section 279.10(b)(1). Such used oil is subject to subpart H of part 266 of this chapter rather than part 279 when burned for energy recovery unless the presumption of mixing can be successfully rebutted.

- I. Any used oil combusted in the dryer shall not contain more than 1,000 ppm total halogens using analytical methods specified pursuant to 40 CFR Part 279.
- J. Any used oil combusted in the dryer shall not exceed 2 ppm of PCB using the analytical methods specified in 40

CFR 761.20(e)(2).

- K. The owner or operator shall only combust #1 or #2 fuel oil, diesel fuel, natural gas, or propane in the hot oil heater.
- L. The maximum sulfur content of any #1 or #2 fuel oil or diesel fuel combusted in the generator engine shall be equal to or less than 0.0015% by weight, and for all other sources at the facility shall be equal to or less than 0.5% by weight per 567 IAC 23.3(3)"b".
- M. The owner or operator shall install and maintain a temperature recording device to measure and continuously record the process temperature of the hot mix asphalt at the exit of the dryer.
- N. The owner or operator shall not process recycled asphalt shingles (RAS) in the dryer that is a regulated asbestos containing material (RACM), as that term is defined in §61.141. RACM is material that is regulated by 40 CFR Part 61, Subpart M, National Emission Standard for Asbestos. See also Appendix A to Subpart M, "Interpretive Rule Governing Roof Removal Operations" for what type of roofing projects are regulated by the asbestos NESHA.

## 2) Operating Limits Based on Plant Specific Operating Conditions

### a) Requirements for Facilities Combusting Liquid or Gaseous Fuels in the Dryer without Control on Truck Loadout

#### i) Facilities Producing Hot Mix Asphalt at a Mix Temperature at or below 325 Degrees Fahrenheit

- A. The owner or operator shall operate the plant a maximum of 14 hours per day.
- B. The dryer may be fired by #1 #2, #3, #4, #5, or #6 fuel oil, diesel fuel, natural gas, propane, used oil, or residual fuel (blends of used oil and #6 fuel oil).
- C. The hot mix asphalt truck loadout emission unit shall be located a minimum of 200 feet from any property line if using enclosed asphalt storage silo(s)<sup>1</sup> or 250 feet if using silo(s) open to the atmosphere.
- D. The temperature of the hot mix asphalt at the exit of the dryer shall be maintained at or below 325 degrees Fahrenheit.
- E. The minimum stack height of the dryer baghouse shall be at least 40 feet above grade.
- F. The minimum stack height of the generator shall be at least 25 feet above grade.
- G. The minimum stack height of the hot oil heater shall be at least 12 feet above grade.
- H. A diesel internal combustion engine used to power the plant, if used, shall be certified to U.S. Environmental Protection Agency's Tier 2, Tier 3, interim Tier 4 or final Tier 4 standards for compression ignition engines in accordance with 40 CFR Part 89 and 40 CFR Part 1039.

<sup>1</sup>An enclosed asphalt storage silo is one that is closed to the atmosphere except when being filled or unloaded

#### ii) Facilities Producing Hot Mix Asphalt at a Mix Temperature at or below 340 Degrees Fahrenheit

- A. The owner or operator shall operate the plant a maximum of 14 hours per day.
- B. The dryer may be fired by #1 #2, #3, #4, #5, or #6 fuel oil, diesel fuel, natural gas, propane, used oil, or residual fuel (blends of used oil and #6 fuel oil).
- C. The hot mix asphalt truck loadout emission unit shall be located a minimum of 500 feet from any property line if using enclosed asphalt storage silo(s)<sup>1</sup> 600 feet if using silo(s) open to the atmosphere.
- D. The temperature of the hot mix asphalt at the exit of the dryer shall be maintained at or below 340 degrees Fahrenheit.
- E. The minimum stack height of the dryer baghouse shall be at least 40 feet above grade.
- F. The minimum stack height of the generator shall be at least 25 feet above grade.
- G. The minimum stack height of the hot oil heater shall be at least 12 feet above grade.
- H. A diesel internal combustion engine used to power the plant, if used, shall be certified to U.S. Environmental Protection Agency's Tier 2, Tier 3, interim Tier 4 or final Tier 4 standards for compression ignition engines in accordance with 40 CFR Part 89 and 40 CFR Part 1039.

<sup>1</sup>An enclosed asphalt storage silo is one that is closed to the atmosphere except when being filled or unloaded

### b) Requirements for Facilities Combusting Liquid or Gaseous Fuels in the Dryer with Control on Truck Loadout

- A. The owner or operator shall operate the plant a maximum of 16 hours per day.
- B. The dryer may be fired by #1 #2, #3, #4, #5, or #6 fuel oil, diesel fuel, natural gas, propane, used oil, or residual fuel (blends of used oil and #6 fuel oil).
- C. The truck loadout emission unit shall be located a minimum of 200 feet from any property line.
- D. The temperature of the hot mix asphalt at the exit of the dryer shall be maintained at or below 340

degrees Fahrenheit.

- E. The emissions from the silo filling and truck loadout operations must be captured and controlled.
- F. The minimum stack height of the dryer baghouse shall be at least 40 feet above grade.
- G. The minimum stack height of the generator shall be at least 25 feet above grade.
- H. The minimum stack height of the hot oil heater shall be at least 12 feet above grade.
- I. A diesel internal combustion engine used to power the plant, if used, shall be certified to U.S. Environmental Protection Agency's Tier 2, Tier 3, interim Tier 4 or final Tier 4 standards for compression ignition engines in accordance with 40 CFR Part 89 and 40 CFR Part 1039.

**c) Requirements for Facilities Combusting Only Gaseous Fuels in the Dryer without Control on Truck Loadout**

**i) Facilities Producing Hot Mix Asphalt at a Mix Temperature at or below 325 Degrees Fahrenheit**

- A. The owner or operator shall operate the plant a maximum of 14 hours per day.
- B. The dryer shall only be fired by natural gas or propane.
- C. The asphalt storage silos and bins must be enclosed when not being filled or unloaded.
- D. The truck loadout emission unit shall be located a minimum of 200 feet from any property line.
- E. The temperature of the hot mix asphalt at the exit of the dryer shall be maintained at or below 325 degrees Fahrenheit.
- F. The minimum stack height of the dryer baghouse shall be at least 35 feet above grade.
- G. The minimum stack height of the generator shall be at least 20 feet above grade.
- H. The minimum stack height of the hot oil heater shall be at least 10 feet above grade.
- I. A diesel internal combustion engine used to power the plant, if used, shall be certified to U.S. Environmental Protection Agency's Tier 4 standards for compression ignition engines in accordance with 40 CFR Part 1039.

**ii) Facilities Producing Hot Mix Asphalt at a Mix Temperature at or below 340 Degrees Fahrenheit**

- A. The owner or operator shall operate the plant a maximum of 16 hours per day.
- B. The dryer shall only be fired by natural gas or propane.
- C. The asphalt storage silos and bins must be enclosed when not being filled or unloaded.
- D. The truck loadout emission unit shall be located a minimum of 500 feet from any property line.
- E. The temperature of the hot mix asphalt at the exit of the dryer shall be maintained at or below 340 degrees Fahrenheit.
- F. The minimum stack height of the dryer baghouse shall be at least 35 feet above grade.
- G. The minimum stack height of the generator shall be at least 20 feet above grade.
- H. The minimum stack height of the hot oil heater shall be at least 10 feet above grade.
- I. A diesel internal combustion engine used to power the plant, if used, shall be certified to U.S. Environmental Protection Agency's Tier 4 standards for compression ignition engines in accordance with 40 CFR Part 1039.

**d) Requirements for Facilities Combusting Only Gaseous Fuels in the Dryer with Control on Truck Loadout**

- A. The dryer shall only be fired by natural gas or propane.
- B. The temperature of the hot mix asphalt at the exit of the dryer shall be maintained at or below 340 degrees Fahrenheit.
- C. The emissions from the silo filling and truck loadout operations must be captured and controlled.
- D. The minimum stack height of the dryer baghouse shall be at least 35 feet above grade.
- E. The minimum stack height of the generator shall be at least 20 feet above grade.
- F. The minimum stack height of the hot oil heater shall be at least 10 feet above grade.
- G. A diesel internal combustion engine used to power the plant, if used, shall be certified to U.S. Environmental Protection Agency's Tier 4 standards for compression ignition engines in accordance with 40 CFR Part 89 and 40 CFR Part 1039.

If the facility has a diesel internal combustion engine subject to New Source Performance Standard (NSPS) Subpart IIII or National Emission Standards for Hazardous Air Pollutants (NESHAP) Subpart ZZZZ, the owner or operator must also follow the requirements from those subparts.

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## 15. Operating Condition Monitoring

All records as required by this permit shall be kept on-site for a minimum of two (2) years and shall be available for inspection by the DNR. Records shall be legible and maintained in an orderly manner.

Initial \_\_\_\_\_

Permit Number (Dept use only) \_\_\_\_\_

- A. The owner or operator shall maintain a record of the maximum design rating, in tons of asphalt produced per hour, and the maximum heat input rating, in MMBtu/hr, of the dryer.
- B. The owner or operator shall maintain a record of the maximum heat input rating, in MMBtu/hr, and the type of fuel fired in the of the hot oil heater.
- C. The owner or operator shall maintain a record of the horsepower rating, in bhp, and the Tier rating of the diesel internal combustion engine used to power the plant.
- D. The owner or operator shall document all best management practices used at the facility to minimize fugitive dust emissions.
- E. The owner or operator shall maintain records on the maintenance done on the fabric filter baghouse.
- F. The owner or operator shall properly operate and maintain equipment to monitor the pressure drop across the baghouse while the emissions unit is in operation. The monitoring equipment shall be calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). The permittee shall record the pressure drop across the baghouse on a daily basis. If the pressure drop is observed outside of the normal operational ranges, the facility shall take immediate corrective action and record the incident and the corrective actions taken.
- G. The owner or operator shall keep the following daily records:
- the startup and shutdown times for the plant;
  - the number of hours that the plant operated.
- H. The owner or operator shall keep the following monthly records:
- the amount of hot mix asphalt produced (tons);
  - the rolling 12-month total of the amount of hot mix asphalt produced (tons);
  - the amount of liquid fuel burned in the dryer; and
  - the rolling 12-month total of the amount of liquid fuel burned in the dryer.
- I. For any liquid fuel combusted at the plant, the facility shall perform an analysis and shall maintain records on the sulfur content of each shipment of oil received. Alternatively, the permittee shall have the fuel supplier provide analyses on the sulfur content of the fuel received.
- J. The owner or operator shall maintain records on the used oil burned in the dryer that demonstrate that the oil meets the requirements of on-spec used oil as specified in 40 CFR §279.11 and in 40 CFR §761.20(e)..
- K. The owner or operator shall maintain the following records on the RAS received at the plant:
- Name(s) of the suppliers of the RAS; and
  - Documentation from the supplier(s) that the RAS is not a regulated asbestos containing material (RACM), as that term is defined in §61.141. RACM is material that is regulated by 40 CFR Part 61, Subpart M, National Emission Standard for Asbestos.
- L. The owner or operator shall maintain records on the location of where this plant operates in Iowa. This shall include the county and the distance between the hot mix asphalt truck loadout emission unit and the property line.
- M. The owner or operator shall monitor and record the temperature of the hot mix asphalt at the exit of the dryer continuously whenever the dryer is in operation.
- N. If the owner or operator has a diesel internal combustion engine subject to New Source Performance Standard (NSPS) Subpart IIII or National Emission Standards for Hazardous Air Pollutants (NESHAP) Subpart ZZZZ, the owner or operator must also follow the requirements from those subparts, including the monitoring, notification, reporting, and recordkeeping requirements. The owner or operator shall also follow the applicable notification and reporting requirements of 40 CFR§ 60.7 and 40 CFR §60.19.

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## 16. Best Management Practices (BMP)

All hot mix asphalt plants covered under this permit are required to employ best management practices to reasonably prevent the discharge of fugitive dust from all process equipment, storage piles, and haul roads beyond the lot line of the property on which it is located. These BMP are examples of reasonable practices to minimize the generation of fugitive dust emissions.

### **BMP on process equipment include but are not limited to:**

- Limit drop heights of materials being transferred to or from any stock pile, bin, or conveyor
- Watering materials
- If using unenclosed aggregate storage bins, do not load aggregate within two (2) feet of the top of the bin walls

### **BMP on haul roads include but are not limited to:**

- Limiting truck speed on facility property
- Watering and/or treating unpaved roadways with chemical dust-suppressants
- Watering and/or sweeping paved roadways
- Immediately cleaning-up or dampening all material spills on the roadways

**BMP on storage piles include but are not limited to:**

- Covering storage piles
- Watering storage piles
- Partially enclosing above ground storage piles within three-sided enclosures
- Stock piles shall be kept as compact as possible

**17. Description of Terms and Acronyms**

*The descriptions below are meant only as a brief explanation of terms contained within the permit and may not be the exact definition of the term or acronym as contained within the regulations.*

bhp	Brake horsepower
Btu	British thermal unit
°C	Degrees Celsius
Condensable PM	Material that condenses and/or reacts upon cooling and dilution in the ambient air to form particulate matter immediately after discharge from the stack
Department	Iowa Department of Natural Resources
dia.	Diameter
°F	Degrees Fahrenheit
ft	Foot
g/dscm	Grams per dry standard cubic meter
gr	Grains
gr/dscf	Grains per dry standard cubic foot
gr/scf	Grains per standard cubic foot
HAP	Hazardous Air Pollutant(s)
hr	Hour
lb	Pound
lb/hr	Pounds per hour
m	Meter
mg	Milligram
MM	Million
NA	Not Applicable
PM <sub>2.5</sub>	Particulate Matter with an aerodynamic diameter equal to or less than 2.5 microns
PM <sub>10</sub>	Particulate Matter with an aerodynamic diameter equal to or less than 10 microns
PM – Federal	Particulate Matter that does not include the condensable PM
PM – State	Particulate Matter that includes condensable PM
ppm	parts per million
ppm <sub>v</sub>	parts per million by volume
RAP	Reclaimed asphalt pavement
RAS	Recycled asphalt shingles
scfm	Standard cubic feet per minute
tons/yr	Tons per year
yr	Year

**END OF PERMIT CONDITIONS**