

Texas Commission on Environmental Quality

INTEROFFICE MEMORANDUM

To: TCEQ Regional Air Managers and Emission Evaluators (see Distribution)

Thru: Jennifer Sidnell, Director
Field Operations Division

From: Brad Toups, Air Section Manager
Field Operations Division

Date: April 3, 2003

Subject: Guidance on Waiving Particulate Matter Testing Requirements for New and Relocated Hot Mix Asphalt Plants

The following general guidance was developed by the TCEQ Engineering Services Team (EST) and Air Permits Division (APD) with input from the Association of General Contractors and other hot mix asphalt plant (HMAP) representatives and consultants. The guidance is intended to provide a list of critical components necessary to determine when and how to waive testing required by federal and state environmental rules for HMAPs. The Environmental Protection Agency (EPA) Region 6 has granted the TCEQ the authority to waive Standards of Performance for New Stationary Sources (NSPS) testing on a case by case basis.

Standard methods of authorization for hot mix asphalt plants (HMAPs) are permit by rule (PBR) 30 Texas Administrative Code (TAC) §106.147 (ATTACHMENT A) and regular New Source Review (NSR) permits, per 30 TAC 116. Most HMAPs, regardless of size can meet the PBR requirements if the location can meet the half mile distance requirement in paragraph (5). There are an estimated 300 to 400 HMAPs operating in the state and reauthorization is required each time they move to a new location. All HMAPs constructed after June 11, 1973 are subject to NSPS Subpart I, which includes particulate matter and opacity test requirements.

Unique to HMAPs, Texas authorizes in the PBR and in common permit conditions a potential waiver of the NSPS testing requirements. Conditions specify that data in lieu of testing (DILOT) may be presented at a pretest meeting and if the documentation adequately shows the new operation of the HMAP should be compliant and the visible emissions from the dryer exhaust are less than 5%, then the stack testing for particulate matter is not required.

The conditions for waiving the particulate matter testing require an official observation of the opacity from the new or relocated dryer exhaust. Preferably, the Region will make this observation and cross check the operational data and equipment with the DILOT. In cases where a certified observer is not available from the Region, the HMAP will need to supply an observer and submit the opacity observation report and field data sheets. The standard 3 hour observation (30 6-minute averages) per 40 CFR 60 Appendix A- 4 Method 9 on the drum/dryer exhaust

stack, covering a period of maximum production is needed to provide the official observation required. If any 6 minute period during the 3 hour observation exceeds 5 % the particulate matter stack testing cannot be waived. Please note that an opacity of greater than 5 % does not constitute a violation of the PBR (regular NSR permits may differ), and opacities in excess of 20% would exceed both NSPS Subpart I and 30 TAC 111.111 limits. The opacity observation should occur very soon after the start up of the plant so a waiver determination can be made well before the 60 day testing and reporting time frame of the NSPS rules.

The DILOT necessary to waive testing includes a fully detailed test report with specific plant and operational data to show that the tested facility is equivalent to the facility being put into operation. The data required to be compared is as follows:

1. Process Description and Control Device

Drum/dryer manufacturer, model, design, and capacity
Control device manufacturer and model

2. NSPS Test Report (no more than 10 years old from date submitted)

See attachments

3. Raw Materials

Fuel type, including fuel analysis and sulfur content
Aggregate materials (type, size)
Percentage of recycled asphalt products used in the mix (if applicable)

4. Operating Parameters

Production rate (tons/hour)
Control device parameters

Baghouses:

- 1) Air-to-cloth ratio
- 2) Filter media (bag material, type)
- 3) Cleaning method (pulse jet, reverse air, etc.) and trigger
- 4) Pressure drop (ΔP) across the baghouse
- 5) Gas flow rate
- 6) Outlet gas temperature

Venturi Scrubbers:

- 1) Scrubber water circulation rate
- 2) ΔP across the venturi
- 3) Gas flow rate
- 4) Outlet gas temperature

DILOT that does not contain the information listed above should not be accepted and testing should be required. The tested plant needs to match the new plant physically and operationally to approve the waiver of NSPS testing. The standard QA-108 form should be generated for the report review. Previously quality assured reports do not have to be reviewed again, only the operational data would require review. The EST and APD staff are available to help evaluate

the relevance of any inconsistencies and assist in determining whether the testing should be waived.

Please note where the PBR in paragraph (1)(A) references a “0.04 grain per dry standard cubic feet allowable;” the PBR is referring to the federal standard for particulate matter in a standard Reference Method 5 train as specified in 40 CFR 60 appendix A. The federal standard does not include the particulate captured in the impingers after the filter in this train, commonly referred to as the back half analysis. Some permit provisions may also refer to this standard, but all other places including the limitations for PBR use in the Subchapter A: General Requirements of Chapter 106, the standard mass rate limitations in the Maximum Allowable Emission Rate Table of permits, and generally all other references to particulate matter are based on the state definition of particulate matter which includes the particulate captured in the impingers, the back half analysis. See the Air Rule Interpretation Team determination R06-147.001.

In situations where HMAPs are going to test to establish compliance with federal and/or state emission standards, the back half analysis should continue to be mandated. Where DILOT is being requested, back half data is not required. The test reports for actual tests and for DILOT including opacity observation during the test, must be fully detailed with all the raw data as specified in the sampling procedures manual and test procedures; summary reports are not acceptable. Please ensure a copy of all HMAP test reports for actual testing or DILOT are directed to the Engineering Services Team at MC-171.

Each waiver of particulate matter testing must be granted in writing, with copies to EPA Region 6 and the Engineering Services Team. The copy to EPA is required in accordance with the EPA’s delegation of authority to the state to implement the NSPS program. An appropriate waiver letter format is attached, (ATTACHMENT B).

When an HMAP is authorized the permit or permit by rule reviewer will provide the owner/operator a copy of this guidance and request that they provide their available DILOT information at least 30 days prior to start-up. When the facility is being relocated, the previous waiver letter should also be included. This should allow adequate review time and open communications to coordinate the opacity check.

ATTACHMENT A

HMAP Permit by Rule

§106.147. Asphalt Concrete Plants.

Any asphalt concrete facility that with 40 Code of Federal Regulations Part 60, Subparts A and I and operates according to the following conditions of this section is permitted by rule.

(1) A New Source Performance Standard pretest meeting concerning the required stack sampling shall be held with commission personnel before the required tests are performed. Air contaminants to be tested for will be determined at the pretest meeting. Stack sampling requirements will not be required by the executive director, provided that:

(A) the applicant submits adequate documentation (including copies of previous test results of the model hot mix plant proposed, including a description of the aggregate materials used in previous tests) demonstrating compliance with the 0.04 grain per dry standard cubic feet allowable;

(B) visible emissions from the exhaust stack are documented at 5.0% or less opacity averaged over six consecutive minutes.

(2) Fuel for dryers shall be sweet natural gases as defined in Chapter 101 of this title (relating to General Air Quality Rules) or liquid petroleum gas, diesel, or fuel oil with a maximum sulfur content of 1.5%.

(3) All aggregate stockpiles shall be sprinkled with water and/or chemicals as necessary to achieve maximum control of dust emissions.

(4) All permanent in-plant roads shall be watered, oiled, or paved and cleaned as necessary to achieve maximum control of dust emissions.

(5) The plant is located at least 1/2 mile from any recreational area or residence or other structure not occupied or used solely by the owner of the facility or the owner of the property upon which the facility is located.

(6) Before construction of the facility begins, written site approval shall be received from the executive director and the facility shall be registered with the commission's Office of Permitting, Remediation, and Registration in Austin using Form PI-7, including a current Table 22.

(7) Emissions of particulate matter, sulfur dioxide, or organic compounds shall not exceed 25 tons per year each.

Adopted August 9, 2000

September 4, 2000

ATTACHMENT B

[SAMPLE LETTER FOR “DILOT” WAIVER FOR ASPHALT PLANTS]

[Date]

[Address of person seeking waiver]

Subject: Waiver from performance test requirements, [Plant name, location, and account no.]

Dear Mr./Mrs. _____ :

Under the provisions of Title 30 Texas Administrative Code (TAC) § 106.147(1), similar provisions in certain New Source Review permits, and the authority of 40 CFR § 60.8(b), the executive director may waive stack sampling requirements for asphalt plants, provided that:

- (A) the applicant submits adequate documentation (including copies of previous test results of the model hot mix plant proposed, including a description of the aggregate materials used in previous tests) demonstrating compliance with the Subpart I particulate emission standard of 0.04 grain per dry standard cubic foot, and;
- (B) visible emissions from the exhaust stack are documented at 5.0% or less opacity averaged over six consecutive minutes.

The _____ Regional Office of the Texas Commission on Environmental Quality (TCEQ) has reviewed the information submitted by [company name], and has determined that this information is sufficient to satisfy conditions (A) and (B) above. The [new/relocated] plant (*drum/dryer make, model number and capacity*) and associated ([*name and model baghouse, wet scrubber, etc.*]) emission control equipment is substantially similar to the plant and emission control equipment which was tested as documented in the report submitted by [company name]. In addition, the [new/relocated] facility’s visible emissions did not exceed 5.0 percent opacity, averaged over six consecutive minutes, while the facility was operating at an asphalt production rate of _____ tons per hour. Therefore, a waiver from particulate matter testing is approved.

This waiver only addresses performance testing for particulate matter and opacity, and does not limit the authority of the TCEQ or U.S. EPA to require additional testing in the future. A copy of this waiver will be copied to U.S. EPA Region 6 for their records. If you have any questions about this subject, please contact _____ at _____ .

Sincerely,

Air Section Manager
TCEQ _____ Regional Office

cc: Mr. John R. Hepola
Chief, Air/Toxics & Inspection Coordination Branch
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U.S. Environmental Protection Agency Region 6
1445 Ross Avenue, Suite 1200
Dallas, Texas 75202-2733

bcc: Mr. Jeff Greif, Supervisor
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MC-171