

MEMORANDUM

TO: REGIONAL DIRECTORS

FROM: John M. Daniel, Jr. P.E., DEE
Director, Division of Air Program Coordination

SUBJECT: Memo Number 01-1002. Guidance on Permit Applicability - PM and PM-10 Sources

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Regional Permit Managers

Air Permit Managers

DATE: November 2, 2001 (amended September 14, 2009)

Background and Purpose

Total Suspended Particulate (TSP) has been dropped by DEQ and EPA as a criteria pollutant, and an ambient air quality standard for TSP no longer exists.

9 VAC 5-80-11 (9 VAC 5-80-1320*) contains exemption levels for permits for various pollutants. A value is included for PM-10 but not for Particulate Matter (PM). This guidance clarifies what should be done in making permit applicability decisions until such time as the regulations have been amended to address the inadvertent exclusion of PM from 9 VAC 5-80-11 (9 VAC 5-80-1320*). It also addresses "state major", major NSR, and Title V permitting. The "state major", major NSR, and Title V permitting determinations will remain unchanged by the minor NSR permit program revisions.

This memo incorporates and supercedes memo 99-1001 "Guidance on Fixing 9 VAC 5-80-11D and 9 VAC 5-80-11E".

Minor NSR

Proposed revisions to 9 VAC 5-80-11D (New Sources) (9 VAC 5-80-1320 C*) would change the exemptions as follows, and you should be governed accordingly in making permit applicability decisions.

The term Particulate Matter will have two components: PM-10 and PM as follows:

PM-10 -- 15 tons per year
PM -- 25 tons per year

The PM-10 number is the primary one for determining whether the source is exempt from permitting, and the PM number would only be used as a surrogate in case you are not able to

quantify PM-10 emissions.

Proposed revisions to 9 VAC 5-80-11E (Modified Sources) (9 VAC 5-80-1320 D*) would change the exemptions as follows, and you should be governed accordingly in making permit applicability decisions.

As in Section 11D (1320 C*), Particulate Matter will have two components: PM-10 and PM as follows:

PM-10 -- 10 tons per year
PM -- 15 tons per year

Where PM-10 can be quantified, that will be the basis for making permit exemption decisions. PM will only be used as a surrogate in those instances where PM-10 emissions cannot be quantified.

It should also be noted that some sources are subject to NSPS's regulating PM emissions. In those cases, applicability of an NSPS may also make a facility subject to permitting even if PM/PM-10 emissions are below the thresholds listed above.

State Major Determination

Once a facility has been determined to be subject to minor NSR permitting for PM / PM-10, PM emissions must be considered as well as PM-10 emissions for determination of whether or not the permit is state major.

Major NSR

In determining applicability of PSD, both PM and PM-10 emissions must be considered.

Of course, only pollutants for which an area is non-attainment need to be reviewed for non-attainment NSR. Currently, no areas of Virginia are non-attainment for PM-10. At this time, PM-10 is the only particulate matter criteria pollutant, so non-attainment major NSR does not apply anywhere in the state for any form of particulate matter.

Title V

DEQ's Title V regulation's applicability section contains the following language:

"Particulate matter shall be used to determine the applicability of this article to major sources only if particulate matter (PM-10) emissions cannot be quantified in a manner acceptable to the board."
(9 VAC 5-80-50 F)

Therefore, if the PM-10 contribution to PM is known, a source is subject to Title V only if the source is major for PM-10. Should PM emissions be known but not the PM-10 fraction, the determination of whether or not the source is subject to Title V is based on PM emissions.

Examples – Minor NSR, “state major”, PSD, and Title V applicability

In each of the following cases, the following apply:

- the source is a new source with PM/PM-10 emissions,
- there are no other air pollutants emitted,
- there are no other emission sources at the facility,
- all emission numbers are uncontrolled emissions (and PTE),
- there are no other issues that would trigger minor NSR permitting requirements (such as NSPS applicability), and
- the source is not in one of the 28 listed source categories for PSD. Therefore the source would only be subject to PSD if emissions were greater than 250 tons per year.

Case 1

Source 1 has 110 tons annual uncontrolled PM emissions. It is known that 5 tons are PM-10 and the rest is larger PM (PM but not PM-10). Because PM-10 emissions are known, that number is used to determine minor NSR permit applicability.

Because the 5 tons per year of PM-10 emissions is below the new source threshold of 15 tons per year, the source is not subject to minor NSR permitting. Since the source is not subject to minor NSR permitting requirements for PM / PM-10, it is not “state major” either, since state major only applies when minor NSR applies.

Emissions of both PM and PM-10 are below PSD applicability levels.

Because the contribution of PM-10 to PM emissions is known, the PM-10 emissions are used to determine Title V applicability. The source is not subject to Title V because the PM-10 emissions of 5 tons per year are below the 100 ton per year threshold.

Case 2

Source 2 has 110 tons annual uncontrolled PM emissions. There is no information on the size distribution of this PM, so it is not known how much of it is PM-10. In this case, since there is no information on the PM-10 content of the PM, the minor NSR permit applicability is based on the 110 tons per year of PM. Since 110 tons exceeds the 25 tons per year exemption level, the facility is subject to minor NSR permitting for PM. It is also “state major” for PM, since the 110 tons per year exceeds the 100 ton per year threshold for state major permits. PM emissions are below PSD applicability levels.

Because the PM-10 fraction of PM emissions is unknown, PM emissions must be used to determine Title V applicability. The source is subject to Title V permitting because its 110 tons per year of PM emissions is above the 100 tons per year major source level.

Case 3

Source 3 has 150 tons annual uncontrolled PM emissions. It is known that 30 tons are PM-10 and the rest is larger PM (PM but not PM-10). Because PM-10 emissions are known, PM-10 emissions are used to determine minor NSR permit applicability.

Because the 30 tons per year of PM-10 emissions exceeds the new source exemption level of 15 tons per year, the source is subject to minor NSR permitting. Because the source is subject to minor NSR permitting for PM-10, the determination of whether or not it is state major needs to be made for both PM and PM-10. Since PM and PM-10 are both pollutants, it must be determined whether the permit will be a state major permit for PM and/or for PM-10. Because PM emissions exceed 100 tons per year, the source is state major for PM. The source is not state major for PM-10 because its PM-10 uncontrolled emissions are less than 100 tons per year.

Both PM and PM-10 emissions are below PSD applicability levels.

Because the PM-10 fraction of PM emissions is known and PM-10 emissions are less than 100 tons per year, the source is not subject to Title V permitting because its 30 tons per year of PM-10 emissions is below the 100 tons per year major source level.

Case 4

Source 4 has 300 tons annual uncontrolled PM emissions. It is known that 10 tons are PM-10 and the rest is larger PM (PM but not PM-10). Because the PM-10 emissions are known, that number is used to determine minor NSR permit applicability. Since the 10 tons per year of PM-10 emissions is below the new source threshold of 15 tons per year, the source is not subject to minor NSR permitting. Since the source is not subject to minor NSR permitting for PM/PM-10, it is not state major either.

PSD applicability must be evaluated separately. Since the 300 tons per year of PM (assuming uncontrolled emissions are equal to the PTE) emissions exceed the major source threshold of 250 tons per year, the facility is subject to PSD for PM. However, the 10 tons per year of PM-10 is below the 250 tons per year major source threshold. Therefore the facility is not subject to PSD for PM-10.

In this case the PM-10 contribution to PM emissions is known. Because PM-10 emissions are below 100 tons per year, the source is not subject to Title V permitting.

Questions or comments on this guidance should be directed to the Office of Air Permit Programs.