



Ohio Environmental Protection Agency
Division of Air Pollution Control

INTER-OFFICE COMMUNICATION

TO: All permit writers and reviewers

FROM: Mike Hopkins, Assistant Chief, DAPC

DATE: August 4, 2008

RE: PM2.5 NSR Rule Implementation Issues

The purpose of this memo is to provide key information about Ohio's implementation of the federal PM2.5 NSR rules. These rules became partly effective starting July 15, 2008. Permit writers need to be aware of the effect these rule changes have on permits.

Question: What did USEPA issue?

On May 15, 2008, USEPA issued final NSR rules for PM2.5. These rules included modifications to the following parts of the federal rules:

40 CFR Part 51.165 – These rules tell states what must be included in their non attainment NSR rules in order to get a fully approved non attainment NSR rules. They have been modified to include PM2.5 requirements. We will be using these rules to guide us on what needs to be included in our modified NSR rules.

40 CFR Part 51.166 – These rules tell states what must be included in their attainment NSR rules in order to get a fully approved attainment NSR rules. They have been modified to include PM2.5 requirements. We will be using these rules to guide us on what needs to be included in our modified NSR rules.

40 CFR Part 51, Appendix S – These are the rules that delegated states use since they don't have their own rules. We will also need to use these rules for PM2.5 until we modify our own rules.

40 CFR Part 52.21 – These are the federal PSD rules. They are used by states that use a delegated program. We will not be using these rules and, instead, will be continuing to use our own NSR rules for PSD.

Question: When do these rules become effective?

These rules became effective starting July 15, 2008. However, for states like Ohio with a fully approved NSR program, the PSD portion of the program does not become

effective until we modify our rules. This means for PSD, we will continue to use our existing NSR rules (OAC Chapter 3745-31) and USEPA's PM10 as a surrogate for PM2.5 policy.

For non attainment NSR, the federal PM2.5 NSR rules became effective immediately (July 15). This means we will be using the federal Appendix S rules for non attainment NSR for PM2.5. Any permit issued final after July 15 that trips the non attainment NSR for PM2.5 must comply with the revised Appendix S for PM2.5.

At some point in the future we will be modifying our rules to include these non attainment NSR PM2.5 changes. Once that happens, we will use Chapter 31 rules instead of Appendix S rules.

Question: What do I cite for rule applicability?

For limits associated with PSD, continue to cite OAC rule 3745-31

For limits associated with non attainment NSR for PM2.5, cite 40 CFR, Part 51, Appendix S

For limits associated with non attainment NSR for non PM2.5, cite OAC rule 3745-31.

Question: What are the trigger levels for the new PM2.5 non attainment rules?

The non attainment NSR Major Stationary Source trigger levels are:

100 tons of direct PM2.5 per year, or
100 tons of SO2 per year (SO2 is considered a precursor for PM2.5).

The non attainment NSR Major Modification trigger levels are:

10 tons of direct PM2.5 emissions, or
40 tons of SO2 emissions (again, as a precursor)

Note that NOx is not currently considered a precursor for PM2.5 but when we write our rules, it will likely be included as a precursor. VOC and ammonia may also end up as precursors.

Question: For PM2.5 non attainment NSR, do I include the condensable fraction of the PM2.5 emissions?

No. USEPA believes the current condensable methods give variable results. Therefore, they will not require condensable emissions to be included either for the applicability determinations or the permit limits for PM2.5. USEPA will be working on the methods in the coming years and plans to promulgate modifications to the methods in the future. USEPA expects this to occur sometime before January 1, 2011. Ohio will follow USEPA's lead and not require condensables for PM2.5. However, we will be asking permittees to provide the condensable information with their applications, if it is available. We will also be asking permittees to conduct the condensable portion of the test and include the data with the stack test reports. Our thinking is that someday the condensable emissions information will be needed (say, for future netting) and so it is better to collect the data when we first permit the source, rather than trying to generate it many years later.

Ohio will continue to require condensables to be counted when the underlying requirement includes condensables. This includes any past permits where condensables were included in the limit (typically for PM or PM10) and subsequent compliance method.

Question: I have heard that you can use SO2 and NOX as offsets for PM2.5. Is that true and, if so, how do you do this? What are the ratios?

The revised rules do allow SO2 and NOx to be used as offsets for direct PM2.5 emissions. However, there are two caveats to this. First, for SO2 and NOx, there are different offset ratios. Second, NOx cannot be used until we revise our rules. The ratios are as follows:

Direct PM2.5 emissions: at least one ton of offsets per one ton of new emissions
SO2 emissions: at least 40 tons of SO2 per one ton of direct PM2.5 emissions
NOx emissions: at least 200 tons of NOx per one ton of direct PM2.5 emissions (note: NOx cannot be used until we revise our rules.)

Question: Can you give me some applicability examples?

Example 1:

A new source wants to be installed in a PM2.5 non attainment area. The potential to emit after controls and all restrictions comes to 110 tons per year of direct PM2.5 emissions. Does the source trigger non attainment NSR?

Yes. Since the direct PM2.5 emissions are greater than 100 tons/year, this project trips major NSR for PM2.5.

For this example, what offsets can be used?

You can use either

≥ 110 tons per year of direct PM2.5 emissions, or

$\geq 110 \times 40 = 4,400$ tons per year of SO₂

NO_x cannot currently be used as offsets for PM2.5.

Example 2:

A new source wants to install in a PM2.5 non attainment area. The potential to emit after controls and all restrictions comes to 50 tons per year of direct PM2.5 emissions and 110 tons per year of SO₂. Does the source trigger non attainment NSR?

Yes. Although the direct PM2.5 emissions are not over the 100 ton major stationary source trigger level, the SO₂ emissions are. Since SO₂ is a precursor for PM2.5 and it is over 100 tons per year, non attainment NSR for PM2.5 applies.

What offsets are needed?

≥ 110 tons per year of SO₂, and

≥ 50 tons per year of direct PM2.5

You could also use a combination of the two above pollutants as long as you used the correct ratio.

For instance you could have:

40 tons per year of direct PM2.5 credits, plus

110 tons of SO₂ plus $10 \times 40 = 400$ tons of SO₂ = 510 tons of SO₂

Question: Can you use SO₂ and NO_x as netting credits for PM2.5?

No. For netting out of non attainment NSR for PM2.5, you cannot do interpollutant trading. Instead, you must net against the same pollutant. For instance, if direct PM2.5 emissions are being netted, you can only net against direct PM2.5 emissions. If SO2 is triggering PM2.5 non attainment, you must net with SO2 credits to avoid non attainment NSR for PM2.5.

Question: I could not find the PM2.5 increments, Significant Impact Levels and Significant Monitoring Concentrations in the new rule. What do I use for PM2.5?

On September 21, 2007, USEPA proposed these values. However, they have not yet finalized the values. So, until they do, if you have any major non attainment NSR project, please discuss this issue with your central office permit contact. We will review the specifics of your permit and make a decision on these issues on a case-by-case basis.

Question: I have a permit-to-install or permit-to-install and operate application that I think might trip the PM2.5 NSR rule. Should I do anything special at this point?

Yes. We are asking you to discuss the applicability of PM2.5 with your central office permit contact. Make sure you both understand how the rule applies. Then, if necessary, discuss the new rule applicability with the permittee so they know any implications to the new rule.

For more information on this rule, please see the Friday, May 16, 2008 Federal Register, beginning on page 28321.

Let me know if you have any additional questions.

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