



State of Ohio Environmental Protection Agency

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JUN 07 2010

Susan Hedman
Regional Administrator
U.S. EPA, Region 5
77 West Jackson Blvd. R-19J
Chicago, Illinois 60604-3507

Re: Revision of Ohio EPA SIP for Incorporation of Emissions from Emissions Units
Shut Down Prior to the 2005 Base Year SIP Inventories

Dear Administrator Hedman:

I am writing to formally request review and approval, as a revision to Ohio's State implementation plan (SIP), the incorporation of SO₂, NO_x, PM_{2.5} and VOC emission reduction credits (ERCs) from units that shut down prior to the 2005 base year. This request covers multiple counties across Ohio. This is necessary to allow for credits to be used as a part of the offset requirements under nonattainment new source review (NSR).

The Code of Federal Regulations (CFR) states [IV.C.3 of Appendix S, 40 CFR Part 51]:

3. Emission Reduction Credits from Shutdowns and Curtailments.

(i) Emissions reductions achieved by shutting down an existing source or curtailing production or operating hours may be generally credited for offsets if they meet the requirements in paragraphs IV.C.3.i.1. through 2 of this section.

(1) Such reductions are surplus, permanent, quantifiable, and federally enforceable.

(2) The shutdown or curtailment occurred after the last day of the base year for the SIP planning process. For purposes of this paragraph, a reviewing authority may choose to consider a prior shutdown or curtailment to have occurred after the last day of the base year if the projected emissions inventory used to develop the attainment demonstration explicitly includes the emissions from such previously shutdown or curtailed emission units. However, in no event may credit be given for shutdowns that occurred before August 7, 1977.

Ted Strickland, Governor
Lee Fisher, Lieutenant Governor
Chris Korleski, Director

USEPA has issued memorandums in the past that address these types of requests. These memorandums resulted from the Clean Air Act Amendments of 1990 which required states to submit 1990 actual emissions inventories and limited the use of emissions from shutdown units as credits under nonattainment NSR. The August 26, 1994 USEPA memorandum from John S. Seitz, entitled "Response to Request for Guidance on Use of Pre-1990 ERC's and Adjusting for RACT at Time of Use," addressed the requirements for using emission reduction credits (ERCs) that occurred prior to the base year used in an attainment demonstration. This memo states that such growth "could be included either at the time the inventory was submitted or in updates submitted after the original submittal, but before the ERC's are used." The memo provides the state "may choose to show that the magnitude of the pre-1990 ERC's (in absolute tonnage) was included in the growth factor, or the state may choose to show that it was not included in the growth factor, but in addition to anticipated general growth." This submittal uses the second approach. The approach is consistent with guidance contained in a May 7, 2009 letter from Pamela Blakley, Chief of Air Permits Section USEPA Region 5, to Michael Hopkins, Assistant Chief of Permitting Ohio EPA. This letter indicates in order to make available certain 1995 emission reductions for use as offsets, Ohio EPA should perform revised modeling where "the 2005 base year would be unchanged (reflecting the shutdown conditions that were in fact the case) and the 2009 model run would be changed by adding the appropriate quantity of emissions." Ohio EPA believes this approach is very conservative because during the attainment demonstration analysis the predicted growth already incorporated into the inventory is retained and additional emissions beyond expected growth are added. This is a worst-case growth scenario that ensures an appropriate amount of ERCs are added into the inventory while continuing to demonstrate attainment is achieved.

As part of this process Ohio EPA performed the following steps:

1. Ohio EPA confirmed the shutdown of several emissions units and determined their "worst-case" actual emissions. Worst-case actual emissions were determined by reviewing all actual emissions reported from 1990 to the last full year prior to the shutdown. The highest reported emissions during a single year were selected. This is necessary because only later, at the time of use of any of these credits for NSR offsetting, Ohio EPA performs a more extensive analysis using the definition of "actual emissions" and ensures the ERCs are surplus, permanent, quantifiable, and federally enforceable. This provides for the most conservative approach.
2. Ohio EPA then performed a cursory analysis to determine an acceptable level of emissions (in tons) for each pollutant to be incorporated into the future inventory by county.
3. The Lake Michigan Air Directors Consortium (LADCO) modeled this requested level of emissions to ensure the ability to attain the 1997 ozone standard and the 1997 annual PM_{2.5} standard were unaffected. These are the standards for

which Ohio EPA has last submitted attainment demonstrations for pollutants covered under this submittal in accordance with IV.C.3 of Appendix S, 40 CFR Part 51. Please note, Ohio EPA recognizes that as we prepare and submit attainment demonstrations for the 2006 24-hour PM_{2.5} standard and 2008 ozone standard, it will be necessary to re-analyze the incorporation of ERCs in those inventories.

To address this request you will find the following documents attached:

1. LADCO's technical support document (TSD) for the revised ERC modeling entitled "Air Quality Analyses for Ozone and PM_{2.5}: Effect of Banked Emissions in Ohio." The results of the modeling indicate that the addition of ERCs does not impact the ability to continue to demonstrate attainment in accordance with the previously submitted ozone attainment demonstrations and the annual PM_{2.5} standard attainment demonstration. An important consideration is that Ohio chose to model future inclusion of the ERC emissions as if they would be physically located at the facility in which they were generated. Because NSR allows offsetting emissions to be obtained anywhere within a nonattainment area for a given facility that can be locating, or expanding, anywhere else within that same nonattainment area, location is really irrelevant. Retaining the original ERC location seemed a logical choice given the uncertainty of future location.
2. Table 1: A list of total tons, by pollutant, that were modeled for each county and which will be the ceiling level of available ERCs in each county.
3. Table 2: A list of potential ERCs by county. Ohio does not intend this list to be exhaustive and it may be modified in the future. In some cases there may be more potential ERC emissions in a given county than what Ohio EPA chose as the ceiling level of ERCs. In some cases, Ohio EPA may find later, upon detailed verification, that some of the potential ERCs are not valid. In some cases, Ohio EPA may find additional ERCs in a county for which we did not have data at the time of this analysis. However, in no case will the use of ERCs be granted in excess of those ceilings described in item 2 above. As mentioned in item 1 above, location is really irrelevant. Also recall, at the time of use the appropriate offset ratios will be applied; therefore, the actual emissions resulting from use of ERCs will never reach that ceiling level because of the ratio requirements. Ohio EPA believes this approach is most appropriate to ensure fairness and viability in Ohio's ERC banking and trading program. Ohio EPA intends to allow the use of verifiable¹ ERCs on a first come first served basis. Once the modeled ceiling level is consumed in a county, additional ERC use will no longer be available without re-analysis and the submittal of an additional revision to the Ohio SIP.

¹ Ohio EPA verifies ERCs for offset use in accordance with Ohio Administrative Code Chapter 3745-31; Ohio's SIP approved NSR program.

4. The 2005 base year PM_{2.5} inventory was submitted to U.S. EPA in conjunction with the “Fine Particulate (PM_{2.5}) State Implementation Plan for Ohio’s Nonattainment Areas” on July 16, 2008. This State-wide attainment demonstration has not been approved by U.S. EPA as of yet. In lieu of the original submittal, Ohio EPA is requesting that U.S. EPA process this revised submittal that includes the pre-2005 ERC emissions². The pre-2005 ERC emissions affect the following areas:
 - a. Cincinnati-Hamilton area (Butler, Clermont, Hamilton and Warren Counties).
 - b. Dayton-Springfield area (Clark, Greene and Montgomery Counties).
 - c. Huntington–Ashland area (Adams, Gallia, Lawrence and Scioto Counties).
 - d. Columbus area (Coshocton, Delaware, Fairfield, Franklin and Licking Counties).
 - e. Parkersburg-Marietta area (Washington County).
 - f. Steubenville-Weirton area (Jefferson County).
 - g. Canton-Massillon area (Stark County).
 - h. Akron-Cleveland-Lorain-Elyria area (Ashtabula, Cuyahoga, Lake, Lorain, Medina, Portage and Summit Counties).

5. The 2005 base year ozone inventory was submitted to U.S. EPA on June 15, 2007 as part of the “Cincinnati-Hamilton, OH Eight-Hour Ozone Attainment Demonstration.” On May 11, 2010 U.S. EPA redesignated this area to attainment and as part of that action approved the 2005 base year emissions inventory for only the Ohio portion of the Cincinnati-Hamilton area [75 FR 26118] (Butler, Clermont, Clinton, Hamilton and Warren counties). The only other required attainment demonstrations submitted by Ohio EPA for the 1997 ozone standard were for the Cleveland-Akron-Lorain area³ and the Columbus area⁴.

² Note that some emissions units are identified in both the ozone and PM_{2.5} inventory for NO_x emissions since NO_x is a precursor under both programs.

³ Cleveland-Akron-Lorain area includes Ashtabula, Cuyahoga, Lake, Lorain, Geauga, Medina, Portage and Summit counties. Submitted to U.S. EPA on June 15, 2007 and revised on February 22, 2008.

⁴ Columbus area includes Delaware, Fairfield, Franklin, Licking, Knox and Madison counties. Submitted to U.S. EPA on November 25, 2008. Note, Ohio EPA had previously submitted a redesignation request for this area prior to the attainment demonstration due date. However, before the area was redesignated by USEPA, air monitoring showed a violation of the standard. Therefore, it was necessary for Ohio EPA to submit the attainment demonstration at a later date.

Both of these earlier submittals relied upon the previous 2002 base year inventory.

Under the 1997 ozone standard, the following areas were attaining the ozone standard prior to the attainment demonstration due date, and Ohio EPA submitted redesignation requests. Therefore, the requirement for an attainment demonstration was waived and does not exist for these areas.

- a. Canton-Massillon area (Stark County).
- b. Dayton-Springfield area (Clark, Green, Miami and Montgomery Counties).
- c. Wheeling area (Jefferson County).

However, Ohio EPA is still incorporating emissions back into the 2005 ozone emissions inventory for reasons that are discussed below. Therefore, as part of this submittal, Ohio is attaching a summary⁵ of the entire 2005 Ohio ozone inventory amended with the pre-2005 ERC emissions.

As discussed above, this submittal incorporates ERC emissions from several shut down emissions units in multiple counties in Ohio. Although not all of these counties are currently nonattainment for either the 1997 ozone or annual PM2.5 standard, Ohio EPA believes it is important to incorporate these emissions due to the likelihood of several of these counties being designated nonattainment under the newer revised standards. Ohio EPA is concerned how U.S. EPA may interpret the use of shut down credits in newly designated nonattainment areas during the interim period prior to submittal of the attainment demonstration required three years after designation of these areas.

According to the July 21, 1993 USEPA memorandum from John S. Seitz entitled, "Use of Shutdown Credits for Offsets;" "because the Clean Air Act Amendments of 1990 have created new schedules for submitting attainment demonstrations, the existing NSR rules restricting the use of so called "prior shutdown credits" may be read as unnecessarily hindering a State's ability to establish a viable offset banking program for several years." In this memorandum USEPA recognizes this situation was not accounted for and now considers that "States should be able to follow, during the interim period between the present and the date when EPA acts to approve—or—disapprove an attainment demonstration that is due, the shutdown requirements applicable to areas with attainment demonstrations."

Then in the Phase 2 Implementation Rule for the 1997 ozone standard [70 FR 71617] U.S. EPA clarified that "because the standard uses a 2002 baseline year, the prior guidance should be interpreted with that baseline in mind instead of the enactment of

⁵ A county level summary, consistent with that which is submitted as a part of all attainment demonstrations, is included here due to the size of the actual emission unit by emissions unit inventory itself. The detailed emissions unit level inventory can be viewed at: <http://www.epa.ohio.gov/dapc/aqmp/eiu/data.aspx>

the CAA Amendments of 1990.” The baseline year is selected as described in the Implementation Rule:

“The baseline emissions inventory is calculated as of the effective date of an area’s nonattainment designation using the most recent calendar year for which a complete inventory is required to be submitted to EPA under subpart A of 40 CFR part 51.... States are required to submit a comprehensive inventory on 3-year cycles within 17 months after the close of the reporting period. Thus, the 2002 inventory was due 17 months after the December 31, 2002 close of the reporting period, i.e., was due by June 1, 2004. For those areas designated nonattainment for the 8-hour ozone NAAQS effective June 15, 2004 (69 FR 23858; April 30, 2004), the baseline emissions inventory should be based on the calendar year 2002 because the 2002 inventory was due under 40 CFR part 51, subpart A, prior to the time of designation. For areas with an effective nonattainment designation in the future, the baseline inventory will be for the calendar year of the most recent triennial inventory as of the date of designation. As provided above, the State may use an alternative baseline only if it is demonstrated that it is consistent with the CAA and the State demonstrates why it is appropriate.” [70 FR 71637]

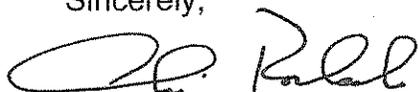
Ohio EPA believes the current situation, since this 1993 memo and Phase 2 Implementation Rule, also has not been accounted for and requires further consideration and guidance from U.S. EPA. It is expected that the 2008 ozone standard implementation rule will be proposed in August of 2010. On the same day it is expected the final reconsidered 2008 ozone standard will be established. Nonattainment area designations will then be finalized in August of 2011. The last triennial inventory will have been submitted in June of 2010 – the 2008 inventory. Attainment demonstrations will not be due until December 2013. Ohio EPA assumes U.S. EPA will continue to guide states in accordance with the 1993 memo thereby allowing the use of pre-baseline emissions between the “present and the date when EPA acts to approve—or—disapprove an attainment demonstration that is due.” Ohio EPA assumes U.S. EPA will take a similar interpretation in the new implementation rule as in the Phase 2 Implementation Rule and will likely set a 2008 baseline year. However, U.S. EPA has guided states not to include ERCs in the base year inventory (2008) as those should “contain only actual emissions occurring in the base year,” but rather they “must be treated as growth.” [70 FR 71650]. The triennial inventory required under subpart A of 40 CFR part 51 does not require future inventories with growth to be submitted. The last base year analysis that included future inventory projections of ERC emissions will be this one, using the 2005 baseline inventory. The inventory, projections and modeling analysis are prepared as a part of developing the attainment demonstration SIPs; so there will not be a 2008 baseline analysis and future year projections of pre-2008 ERC until the attainment demonstrations are ready for submittal. So what will happen between the designations date (August 2011) and the attainment demonstration due date (December 2013)? Will U.S. EPA interpret shutdowns occurring since the last emissions inventory with ERCs (2005), the subject of this

request, to be available as offset credits? Or will U.S. EPA interpret that only pre-2008 ERCs will be available if there was a projected inventory analysis conducted that included growth? The latter appears inconsistent with the 1993 memo in that it “unnecessarily hinders a State’s ability to establish a viable offset banking program for several years.”

Because of this uncertainty, Ohio EPA is requesting clarification on the above and also that emissions from several shutdown units occurring after the 1990 amendments and prior to the 2005 emissions inventory base year be incorporated back into Ohio EPA’s 2005 inventories for all counties currently nonattainment for ozone or PM2.5 as well as those that may possibly be designated nonattainment under the revised standards in the future. Ohio EPA believes this will ensure these reductions are available for NSR offsetting in the future during these interim periods.

If you have any questions, please contact Jennifer Hunter in the Division of Air Pollution Control at (614) 644-3696.

Sincerely,

A handwritten signature in black ink, appearing to read "Chris Korleski". The signature is fluid and cursive, with the first name being more prominent.

Chris Korleski

Director

enclosures

cc: Bob Hodanbosi, DAPC

Jennifer Hunter, DAPC