



John R. Kasich, Governor  
Mary Taylor, Lt. Governor  
Craig W. Butler, Director

March 19, 2015

Mr. Douglas Aburano  
U.S. EPA Region V (AR-18J)  
77 W. Jackson Blvd.  
Chicago, IL 60604

**Re: Supplemental Information Regarding Ohio EPA's February 20, 2015  
Submittal for a "1-Year Extension of the 8-hour Ozone Attainment Date for  
the Cleveland-Akron-Lorain, Ohio 2008 8-hour Ozone Standard  
Nonattainment Area"**

Dear Mr. Aburano,

The Ohio Environmental Protection Agency (Ohio EPA) wishes to provide supplemental information regarding our February 20, 2015 1-year extension request for the 2008 8-hour ozone attainment date for the Cleveland-Akron-Lorain, Ohio nonattainment area.

At the request of U.S. EPA, Ohio EPA is providing supplemental information to clarify Ohio meets the following criteria:

Section 181(a)(5)(A), "the State has complied with all requirements and commitments pertaining to the area in the applicable implementation plan."

In our February 20, 2015 request, we stated "Ohio EPA has complied with all applicable requirements and meets this condition." In this letter, Ohio EPA wishes to provide supplemental information to show we have implemented all required SIP elements currently approved by U.S. EPA and will continue to have these SIP elements in place in the future.

First, Ohio EPA's 1997 "Redesignation Request and Maintenance Plan for the Cleveland- Akron-Lorain Ozone Nonattainment Area" revision submitted to U.S. EPA on March 17, 2009, and then revised on October 29, 2012, has a detailed description of emission controls that have been implemented in the Cleveland- Akron-Lorain area. A copy of "Chapter Five" from the revised submission has been attached to demonstrate

all required emission control for the prior ozone standards have been adopted and implemented and therefor meet the requirements under Section 181(a)(5) of the CAAA.

Secondly, under the 2008 ozone standard all of Ohio's nonattainment areas are classified as marginal. Section 182(a) of the CAAA allows up to 3 years from designation to attain the standard (July 20, 2015 for Ohio) and does not require the submission of a traditional attainment demonstrations. Marginal areas are required to submit only the emissions inventory and an emissions statement program to satisfy the attainment demonstration requirements. Ohio EPA submitted the emissions inventory and emissions statement documentation to U.S. EPA on July 18, 2014 via Ohio's "State Implementation Plan 2008 Eight-Hour Ozone National Ambient Air Quality Standard Emissions Inventory & Emissions Statement" submittal.

Thus, Ohio EPA has implemented all required SIP elements and all other Section 181(a)(5) requirements discussed in our original extension request submittal and, therefore, the Cleveland-Akron-Lorain, Ohio marginal nonattainment area is eligible for a one-year extension of the attainment date for the 2008 8-hour ozone standard.

We hope this supplemental information will allow you to process our request as expeditiously as practicable. If you have any questions or comments concerning this request, please contact Jennifer Van Vlerah at 614-644-3696 or at [Jennifer.vanvlerah@epa.ohio.gov](mailto:Jennifer.vanvlerah@epa.ohio.gov).

Sincerely,



Bob Hodanbosi, Chief, Ohio Environmental Protection Agency, DAPC

enclosures

cc: Jennifer Van Vlerah, SIP Manager, Ohio EPA, DAPC

## CHAPTER FIVE

### CONTROL MEASURES AND REGULATIONS

CAA Section 107(d)(3)(E)(ii), 107(d)(3)(iv) & 107(d)(3)(E)(v)

#### Requirement 1 of 6

Section 182(b) of the 1990 Clean Air Act Amendments requires states with moderate nonattainment areas to implement RACT under Section 172(c)(1).

#### Background

Section 182(b) of the 1990 Clean Air Act Amendments requires states with moderate nonattainment areas to implement RACT under Section 172(c)(1) with respect to the following:

- i.) Each category of VOC sources in the area covered by a Control Technology Guideline (CTG) document issued between November 15, 1990, and the date of attainment;
- ii.) All VOC sources in the area covered by any CTG issued before November 15, 1990; and
- iii.) All other major stationary sources of VOCs that are located in the area.

#### Demonstration

As required under the 1-hour ozone standard, Ohio EPA submitted VOC RACT rules covering the second and third categories. The U.S. EPA approved Ohio's VOC RACT rules on April 25, 1996 (61 FR 18255), September 7, 1994 (59 FR 46182), and October 23, 1995 (60 FR 54308). With respect to the first category, EPA issued CTGs for five source categories in September 2006 and three additional source categories in September 2007. Areas classified as moderate and above were required to submit VOC RACT for the source categories covered by these CTGs, by September 2007 and September 2008, respectively. Ohio EPA is in the process of adopting all VOC RACT requirements under OAC Chapter 3745-21 as required under the first category as part of a rulemaking that will be finalized and submitted as a SIP revision in conjunction with this redesignation request.

RACT requirements are incorporated into permits along with monitoring, recordkeeping, and reporting necessary to ensure ongoing compliance. Ohio EPA also has an active enforcement program to address violations

discovered by field office staff. The Ohio RACT rules are found in OAC Chapter 3745-21<sup>8</sup>.

### **Requirement 2 of 6**

CAA Section 182(b) requires plan provisions for reasonable further progress for moderate nonattainment areas that include a 15 percent reduction in VOC and NOx emissions.

### **Background**

Section 182(b)(1) requires reductions as part of a 15 percent rate of progress (ROP) demonstration. The requirement for NOx emission reductions can be waived if it is determined to not contribute to attainment. However, it was determined that NOx emission reductions would be necessary for Ohio.

As explained in a memorandum from John S. Seitz, Director, Office of Air Quality Planning and Standards, entitled "Reasonable Further Progress, Attainment Demonstration, and Related Requirements for Ozone Nonattainment Areas Meeting the Ozone National Ambient Air Quality Standards," dated May 10, 1995, U.S. EPA interprets the provisions regarding attainment demonstrations to not require SIP submittals if an ozone nonattainment area subject to those requirements is monitoring attainment of the ozone standard. The Cleveland-Akron-Lorain area is monitoring attainment; however, Ohio EPA submitted an attainment demonstration on June 15, 2007 (supplemented February 22, 2008) which is summarized below.

### **Demonstration**

The Cleveland-Akron-Lorain area implemented state rules identified in their 1994 15 percent ROP demonstration as part of the one-time CAAA requirements. These measures include the region's Motor Vehicle Inspection and Maintenance (I/M) Program (E-Check), Stage II vapor recovery from gasoline nozzles, enforcement cases, the original architectural coatings rule, and removal of the 100 ton per year cut-off for VOC RACT requirements in the rural portion of the nonattainment area (including Stage I Vapor Recovery). While the March 14, 1994, 15 percent ROP plan submittal was not explicitly approved, these rules were assumed to be in place as part of the maintenance plan approved as part of the one-hour redesignation on May 7, 1996.

In addition to the 1994 15 percent ROP, Ohio implemented NOx RACT rules<sup>9</sup> effective December 22, 2007. Ohio's rule has compliance dates of December 22, 2009 and December 22, 2010. These rules were submitted to U.S. EPA for consideration as a revision to the SIP on January 10, 2008.

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<sup>8</sup> [http://www.epa.state.oh.us/dapc/regs/3745-21/3745\\_21.html](http://www.epa.state.oh.us/dapc/regs/3745-21/3745_21.html)

<sup>9</sup> [http://www.epa.state.oh.us/dapc/regs/3745-110/3745\\_110.html](http://www.epa.state.oh.us/dapc/regs/3745-110/3745_110.html)

In addition to the above, Ohio also implemented the following control strategies as part of the attainment demonstration:

- Portable fuel containers<sup>10</sup>: Ohio's rule has a compliance date of July 1, 2007. This rule was approved into the SIP on March 30, 2007.
- Architectural and industrial maintenance (AIM) coatings<sup>11</sup>: Ohio's rule has a compliance date of January 1, 2009. This rule was not submitted for SIP approval due to impending changes to the corresponding federal rules, per agreement with U.S. EPA.
- Consumer and commercial products<sup>12</sup>: Ohio's rule has compliance dates of March 15, 2008 and January 1, 2009. These rules were submitted to U.S. EPA for consideration as a revision to the SIP on October 4, 2007.

### **Requirement 3 of 6**

Section 182(a)(3)(B) requires states to submit emissions statements.

#### **Background**

Section 182(a)(3)(B) requires states to submit emissions statements within two years of the enactment of the Clean Air Act Amendments and then every three years thereafter.

#### **Demonstration**

Ohio EPA submitted its emissions statement SIP on March 18, 1994 which was approved by U.S. EPA on October 13, 1995 (59 FR 51863). As discussed in Chapter Four (Requirement Four), Ohio EPA submits, and commits to submit, emission inventories (statements) every three years.

### **Requirement 4 of 6**

Evidence that control measures required in past ozone SIP revisions have been fully implemented.

#### **Background**

In addition to the historic RACT requirements and those mentioned above, the U.S. EPA NO<sub>x</sub> SIP Call required 22 states to pass rules that would result in significant emission reductions from large EGUs, industrial boilers, and cement kilns in the eastern United States. Ohio passed this rule in 2001. NO<sub>x</sub>

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<sup>10</sup> [http://www.epa.state.oh.us/dapc/regs/3745-21/21\\_17.pdf](http://www.epa.state.oh.us/dapc/regs/3745-21/21_17.pdf)

<sup>11</sup> [http://www.epa.state.oh.us/dapc/regs/3745-113/3745\\_113.html](http://www.epa.state.oh.us/dapc/regs/3745-113/3745_113.html)

<sup>12</sup> [http://www.epa.state.oh.us/dapc/regs/3745-112/3745\\_112.html](http://www.epa.state.oh.us/dapc/regs/3745-112/3745_112.html)

SIP Call requirements are incorporated into permits along with monitoring, recordkeeping, and reporting necessary to ensure ongoing compliance. Ohio EPA also has an active enforcement program to address violations discovered by field office staff. Compliance is tracked through the Clean Air Markets data monitoring program. Beginning in 2004, this rule accounts for a reduction of approximately 31 percent of all NO<sub>x</sub> emissions statewide compared to previous uncontrolled years. The other 21 states also have adopted these rules.

On March 10, 2004, the U.S. EPA promulgated the CAIR. Beginning in 2009, U.S. EPA's CAIR rule requires EGUs in 28 eastern states and the District of Columbia to significantly reduce emissions of NO<sub>x</sub>. CAIR will replace the NO<sub>x</sub> SIP Call for EGUs. National NO<sub>x</sub> emissions will be cut from 4.5 million tons in 2004, to a cap of 1.5 million tons by 2009, and 1.3 million tons in 2018 in 28 states. States were required to submit a CAIR SIP as part of this effort. Ohio submitted a CAIR SIP which was approved by U.S. EPA on February 1, 2007. U.S. EPA projects that in 2009 emissions of NO<sub>x</sub> will decrease from a baseline of 264,000 tons per year to 91,000 tons per year within Ohio<sup>13</sup>.

Section 182(b) contains additional provisions applicable to moderate nonattainment areas. Section 182(b)(3) requires gasoline vapor recovery systems for gasoline dispensing stations in the area and section 182(b)(4) requires motor vehicle inspection and maintenance programs.

### **Demonstration**

U.S. EPA and Ohio EPA performed modeling that indicated this area would attain the eight-hour ozone standard with the implementation of the NO<sub>x</sub> SIP Call. Controls for EGUs formally commenced May 31, 2004. Emissions covered by this program have been generally trending downward since 1998 with larger reductions occurring in 2002 and 2003. Data taken from the U.S. EPA Clean Air Markets web site, quantify the gradual NO<sub>x</sub> reductions that have occurred in Ohio as a result of Title IV of the 1990 CAA Amendments and the beginning of the NO<sub>x</sub> SIP Call Rule. Ohio developed the NO<sub>x</sub> Budget Trading Program rules in OAC Chapter 3745-14<sup>14</sup> in response to the SIP Call. OAC Chapter 3745-14 regulates EGUs and certain non-EGUs under a cap and trade program based on an 85 percent reduction of NO<sub>x</sub> emissions from EGUs and a 60 percent reduction of NO<sub>x</sub> emissions from non-EGUs, compared to historical levels. This cap will stay in place through 2008, at which time the CAIR program will supersede it as discussed above.

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<sup>13</sup> <http://www.epa.gov/cair/pdfs/0053-2228.pdf>

<sup>14</sup> [http://www.epa.state.oh.us/dapc/regs/3745-14/3745\\_14.html](http://www.epa.state.oh.us/dapc/regs/3745-14/3745_14.html)

On April 21, 2004, U.S. EPA published Phase II of the NO<sub>x</sub> SIP Call that establishes a budget for large (greater than 1 ton per day emissions) stationary internal combustion engines. Ohio EPA's OAC rule 3745-14-12 addresses stationary internal combustion engines, all used in natural gas pipeline transmissions. U.S. EPA approved this revision to the SIP on April 4, 2008. An 82 percent NO<sub>x</sub> reduction from 1995 levels is anticipated. Completion of the compliance plan occurred by May 1, 2006 and the compliance demonstration began May 1, 2007. The 2007 controlled NO<sub>x</sub> emissions is 599 tons statewide for the ozone season.

Section 182(b)(3) requires states to submit Stage II vapor recovery rules no later than November 15, 1992. The U.S. EPA partially approved and partially disapproved Ohio's SIP revision for implementation of Stage II on October, 20, 1994 (59 FR 52911). As stated in that rulemaking action, with the exception of paragraph 3745-21-09 (DDD)(5), U.S. EPA considers Ohio's Stage II program to fully satisfy the criteria set forth in the September 17, 1993, U.S. EPA guidance document for such programs entitled "Enforcement Guidance for Stage II Vehicle Refueling Control Programs." Furthermore, the September 17, 1993, guidance memorandum states that once onboard vapor recovery regulations are promulgated, the Stage II regulations are no longer applicable for moderate ozone nonattainment areas. The U.S. EPA promulgated onboard vapor recovery rules in February 1994. Therefore, pursuant to Section 202(a)(6) of the CAA, Stage II would no longer be required.

The U.S. EPA's final I/M regulations in 40 CFR Part 85 require the states to submit a fully adopted I/M program by November 15, 1993. U.S. EPA approved Ohio's enhanced I/M program (E-Check), on April 4, 1995 (60 FR 16989) and January 6, 1997 (62 FR 646).

The E-check program and Stage I and Stage II requirements are still being implemented.

#### Tier II Emission Standards for Vehicles and Gasoline Sulfur Standards

In February 2000, U.S. EPA finalized a federal rule to significantly reduce emissions from cars and light trucks, including sport utility vehicles (SUVs). Under this proposal, automakers will be required to sell cleaner cars, and refineries will be required to make cleaner, lower sulfur gasoline. This rule will apply nationwide. The federal rules will phase in between 2004 and 2009. U.S. EPA has estimated that NO<sub>x</sub> emission reductions will be approximately 77 percent for passenger cars, 86 percent for smaller SUVs, light trucks, and minivans, and 65 to 95 percent reductions for larger SUVs, vans, and heavier trucks. VOC emission reductions will be approximately 12 percent for passenger cars, 18 percent for smaller SUVs, light trucks, and minivans, and 15 percent for larger SUVs, vans, and heavier trucks.

### Heavy-Duty Diesel Engines

In July 2000, U.S. EPA issued a final rule for Highway Heavy Duty Engines, a program which includes low-sulfur diesel fuel standards, which will be phased in from 2004 through 2007. This rule applies to heavy-duty gasoline and diesel trucks and buses. This rule will result in a 40 percent reduction in NO<sub>x</sub> from diesel trucks and buses, a large sector of the mobile sources NO<sub>x</sub> inventory.

### Clean Air Non-road Diesel Rule

In May 2004, U.S. EPA issued the Clean Air Non-road Diesel Rule. This rule applies to diesel engines used in industries such as construction, agriculture, and mining. It also contains a cleaner fuel standard similar to the highway diesel program. The new standards will cut emissions from non-road diesel engines by more than 90 percent. Non-road diesel equipment, as described in this rule, currently accounts for 47 percent of diesel particulate matter (PM) and 25 percent of NO<sub>x</sub> from mobile sources nationwide. Sulfur levels will be reduced in non-road diesel fuel by 99 percent from current levels, from approximately 3,000 parts per million (ppm) now to 15 ppm in 2009. New engine standards take effect, based on engine horsepower, starting in 2008. Together, these rules will substantially reduce local and regional sources of ozone precursors.

## **Requirement 5 of 6**

Acceptable provisions to provide for new source review.

### **Background**

Ohio has a long standing and fully implemented New Source Review (NSR) program. This is addressed in OAC Chapter 3745-31<sup>15</sup>. The Chapter includes provisions for the Prevention of Significant Deterioration (PSD) permitting program in OAC rules 3745-31-01 to 3745-31-20. Ohio's PSD program was conditionally approved on October 10, 2001 (66 FR 51570) and received final approval on January 22, 2003 (68FR 2909) by U.S. EPA as part of the SIP.

### **Demonstration**

Any facility that is not listed in the 2002 emission inventory, or for the closing of which credit was taken in demonstrating attainment, will not be allowed to construct, reopen, modify, or reconstruct without meeting all applicable NSR requirements. Once the area is redesignated, Ohio EPA will implement NSR through the PSD program.

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<sup>15</sup> [http://www.epa.state.oh.us/dapc/regs/3745-31/3745\\_31.html](http://www.epa.state.oh.us/dapc/regs/3745-31/3745_31.html)

**Requirement 6 of 6**

Assure that all existing control measures will remain in effect after redesignation unless the State demonstrates through photochemical modeling that the standard can be maintained without one (1) or more control measures.

**Demonstration**

Ohio commits to maintaining the aforementioned control measures after redesignation. Ohio hereby commits that any changes to its rules or emission limits applicable to VOC and/or NO<sub>x</sub> sources, as required for maintenance of the ozone standard in the Cleveland - Akron - Lorain area, will be submitted to U.S. EPA for approval as a SIP revision.

Ohio, through Ohio EPA's Legal section, has the legal authority and necessary resources to actively enforce any violations of its rules or permit provisions. After redesignation, it intends to continue enforcing all rules that relate to the emission of ozone precursors in the Cleveland - Akron - Lorain area.