6560-50-P

ENVIRONMENTAL PROTECTION AGENCY

40 CFR Part 52

[EPA-R08-OAR-2015-0227; FRL-9927-68-Region 8]

Approval and Promulgation of Air Quality Implementation Plans; State of Utah; Utah County - Trading of Motor Vehicle Emission Budgets for PM_{10} Transportation Conformity

AGENCY: Environmental Protection Agency.

ACTION: Direct final rule.

SUMMARY: The Environmental Protection Agency (EPA) is taking direct final action to approve a State Implementation Plan (SIP) revision submitted by the State of Utah. On March 9, 2015, the Governor of Utah submitted a revision to the Utah SIP, adding a new rule regarding trading of motor vehicle emission budgets (MVEB) for Utah County. The rule allows trading from the motor vehicle emissions budget for primary particulate matter of 10 microns or less in diameter (PM_{10}) to the motor vehicle emissions budget for nitrogen oxides (NOx), which is a PM_{10} precursor. The resulting motor vehicle emissions budgets for NOx and PM_{10} may then be used to demonstrate transportation conformity with the SIP. The EPA is taking this action under section 110 of the Clean Air Act (CAA).

DATES: This rule is effective on [**Insert date 60 days after publication in the Federal Register**] without further notice, unless EPA receives adverse comment by [**Insert date 30 days after publication in the Federal Register**]. If adverse comment is received, EPA will publish a timely withdrawal of the direct final rule in the **Federal Register** informing the public that the

rule will not take effect.

ADDRESSES: Submit your comments, identified by Docket ID No. EPA-R08-OAR-2015-0227, by one of the following methods:

- http://www.regulations.gov. Follow the on-line instructions for submitting comments.
- Email: russ.tim@epa.gov
- Fax: (303) 312-6064 (please alert the individual listed in the **FOR FURTHER INFORMATION CONTACT** if you are faxing comments).
- Mail: Carl Daly, Director, Air Program, EPA, Region 8, Mailcode 8P-AR, 1595 Wynkoop Street, Denver, Colorado 80202-1129.
- Hand Delivery: Carl Daly, Director, Air Program, EPA, Region 8, Mailcode 8P-AR, 1595 Wynkoop Street, Denver, Colorado 80202-1129. Such deliveries are only accepted Monday through Friday, 8:00 a.m. to 4:30 p.m., excluding federal holidays. Special arrangements should be made for deliveries of boxed information.

Instructions: Direct your comments to Docket ID No. EPA-R08-OAR-2015-0227. EPA's policy is that all comments received will be included in the public docket without change and may be made available online at http://www.regulations.gov, including any personal information provided, unless the comment includes information claimed to be Confidential Business Information (CBI) or other information whose disclosure is restricted by statute. Do not submit information that you consider to be CBI or otherwise protected through http://www.regulations.gov or email. The http://www.regulations.gov website is an "anonymous access" system, which means EPA will not know your identity or contact information unless you

provide it in the body of your comment. If you send an email comment directly to EPA, without going through http://www.regulations.gov, your email address will be automatically captured and included as part of the comment that is placed in the public docket and made available on the Internet. If you submit an electronic comment, EPA recommends that you include your name and other contact information in the body of your comment and with any disk or CD-ROM you submit. If EPA cannot read your comment due to technical difficulties and cannot contact you for clarification, EPA may not be able to consider your comment. Electronic files should avoid the use of special characters, any form of encryption, and be free of any defects or viruses. For additional instructions on submitting comments, go to Section I, General Information of the **SUPPLEMENTARY INFORMATION** section of this document.

Docket: All documents in the docket are listed in the http://www.regulations.gov index. Although listed in the index, some information is not publicly available, e.g., CBI or other information whose disclosure is restricted by statute. Certain other material, such as copyrighted material, will be publicly available only in hard copy. Publicly-available docket materials are available either electronically in http://www.regulations.gov or in hard copy at the Air Program, EPA, Region 8, Mailcode 8P-AR, 1595 Wynkoop Street, Denver, Colorado 80202-1129. EPA requests that if at all possible, you contact the individual listed in the **FOR FURTHER INFORMATION CONTACT** section to view the hard copy of the docket. You may view the hard copy of the docket Monday through Friday, 8:00 a.m. to 4:00 p.m., excluding Federal holidays.

FOR FURTHER INFORMATION CONTACT: Tim Russ, Air Program, EPA, Region 8, Mailcode 8P-AR, 1595 Wynkoop Street, Denver, Colorado 80202-1129, (303) 312-6479, russ.tim@epa.gov.

SUPPLEMENTARY INFORMATION:

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I. General Information

1. *Submitting CBI.* Do not submit CBI to EPA through http://www.regulations.gov or email. Clearly mark the part or all of the information that you claim to be CBI. For CBI information in a disk or CD ROM that you mail to EPA, mark the outside of the disk or CD ROM as CBI and then identify electronically within the disk or CD ROM the specific information that is claimed as CBI. In addition to one complete version of the comment that includes information claimed as CBI, a copy of the comment that does not contain the information claimed as CBI must be submitted for inclusion in the public docket. Information so marked will not be disclosed except in accordance with procedures set forth in 40 CFR part 2.

2. *Tips for Preparing Your Comments.* When submitting comments, remember to:

a. Identify the rulemaking by docket number and other identifying information (subject heading, Federal Register date and page number).

b. Follow directions - The agency may ask you to respond to specific questions or organize comments by referencing a Code of Federal Regulations (CFR) part or section number.

c. Explain why you agree or disagree; suggest alternatives and substitute language for your requested changes.

d. Describe any assumptions and provide any technical information and/or data that you used.

e. If you estimate potential costs or burdens, explain how you arrived at your estimate in sufficient detail to allow for it to be reproduced.

f. Provide specific examples to illustrate your concerns, and suggest alternatives.

g. Explain your views as clearly as possible, avoiding the use of profanity or personal threats.

h. Make sure to submit your comments by the comment period deadline identified.

II. Background

In this action, we are approving and soliciting public comment regarding the Governor's March 9, 2015, submittal of Utah's new Rule R307-311 for adoption into the Utah SIP. The rule will allow certain trading of MVEBs for the purposes of transportation conformity for PM_{10} for Utah County. Once approved by EPA, the Mountainland Association of Governments (MAG) will then be able to use the provisions of Rule R307-311 when MAG performs a transportation conformity determination for its Regional Transportation Plan (RTP) and/or Transportation Improvement Program (TIP).

The above SIP action that was adopted by the Utah Air Quality Board (UAQB), and subsequently submitted to EPA by the Governor of Utah for approval, is discussed in greater

detail in sections III, IV, and V below. We also discuss the state's associated technical support document (TSD), which gives technical information to support new Rule R307-311.

III. What Was the State's Process?

Sections 110(a)(2) and 110(l) of the CAA requires that a state provide reasonable notice and public hearing before adopting a SIP revision and submitting it to us. More detailed requirements for notice and public hearing are set out in 40 CFR 51.102.

On December 4, 2014 the UAQB proposed for public comment amendments to the Utah SIP for Utah Air Quality Rule R307-311; "Utah County: Trading of Emission Budgets for Transportation Conformity." In addition on January 12, 2015, the Utah Division of Air Quality (UDAQ) made the proposed TSD available for public comment and extended the Rule R307-311 public comment period to February 12, 2015. EPA notes that included with the state's administrative documentation for this SIP and Rule revision was a letter memorandum, DAQ-010-15 dated February 19, 2015, from Bryce Bird, Director, UDAQ to the UAQB. This letter memorandum indicated that a public comment period was held from January 1, 2015 through February 12, 2015 regarding the proposed Rule R307-311 SIP revisions. The UDAQ February 19, 2015 letter memorandum noted that no public comments were received on the proposed rule R307-311, but that EPA did comment on the TSD. UDAQ summarized and responded to EPA's comments in its February 19, 2015 letter memorandum to the UAQB. In addition, UDAQ noted that no public hearings were requested. In consideration of the February 19, 2015 UDAQ letter memorandum, the UAQB subsequently adopted the proposed Rule R307-311, and a revised TSD, on March 4, 2015. The SIP Rule revision became state effective on March 5, 2015 and was submitted by the Governor to EPA by a letter dated March 9, 2015. By a subsequent letter dated

March 11, 2015, Bryce Bird, Director, UDAQ submitted the necessary administrative documentation that supported the Governor's submittal.

We have evaluated Utah's March 9, 2015 SIP submittal and the March 11, 2015 submitted administrative documentation and have determined that the state met the requirements for reasonable notice and public hearing under section 110(a)(2) of the CAA. By a letter dated March 24, 2015, we advised the state that the SIP submittal was complete under section 110(k)(1)(B) of the Act, because the submittal met the minimum "completeness" criteria found in 40 CFR part 51, Appendix V.

IV. EPA's Evaluation of Utah Rule R307-311

(a) Background and Purpose

Transportation conformity is required by section 176 of the CAA to ensure that federally supported highway and transit project activities are consistent with ("conform to") the purpose of a SIP. Conformity to the purpose of the SIP means that transportation activities will not cause new air quality violations, worsen existing violations, or delay timely attainment of the national ambient air quality standards (NAAQS). EPA's transportation conformity rule establishes the criteria and procedures for determining whether transportation activities conform to the state air quality plan.

One key provision of EPA's transportation conformity rule (see 40 CFR part 93, subpart A) requires a demonstration that emissions from the RTP and TIP are consistent with the MVEB in the applicable SIP (40 CFR sections 93.118 and 93.124). The transportation conformity MVEB is defined as the level of on-road mobile source emissions relied upon in the SIP to attain or maintain compliance with the NAAQS in the nonattainment or maintenance area.

In this particular instance, the NAAQS involved is PM_{10}, the nonattainment area is Utah County, the MVEBs involve direct emissions of PM_{10} and NOx, the latter as a precursor to the formation of PM_{10}, and the applicable SIP is the EPA-approved Utah PM_{10} attainment plan, as updated on December 23, 2002 (67 FR 78181). The approved PM_{10} attainment plan contains (among other things) an attainment demonstration for Utah County that sets PM_{10} and NOx MVEBs.

Transportation conformity is demonstrated when future year's projected on-road mobile source's emissions, for a particular pollutant or precursor, are estimated to be at or below the on-road motor vehicle's emissions budget for that pollutant or precursor in the applicable SIP. For the PM_{10} NAAQS for Utah County, conformity must be demonstrated separately for the PM_{10} and NOx MVEBs established in the Utah County PM_{10} attainment demonstration. However, emissions can be traded between the PM_{10} and NOx budgets if there is an approved rule in the SIP that establishes appropriate mechanisms for such trades. See 40 CFR 93.124(b).

Currently, the Utah SIP does not contain an approved rule that establishes an appropriate mechanism for trading of emissions between the PM_{10} and NOx MVEBs for Utah County. The EPA notes, however, that we previously approved a Utah Rule (R307-310) that allows trading of emissions between the PM_{10} and NOx MVEBs for another PM_{10} nonattainment area in Utah, Salt Lake County. 67 FR 44065 (July 1, 2002). For Utah County, the state has developed a new Rule R307-311, very similar to that for Salt Lake County, which establishes an on-road mobile source emissions trading mechanism that; (1) involves only PM_{10} and NOx MVEBs from the PM_{10} attainment demonstration SIP, (2) allows trading in only one direction from the PM_{10} budget to the NOx budget on a one-to-one basis, (3) applies only to transportation conformity

determinations in Utah County in conjunction with the PM_{10} attainment demonstration SIP, and (4) is pursuant to 40 CFR part 93, subpart A.

(b) Utah Rule R307-311 Description

An overview of all portions of the state's new Rule R307-311 is provided below:

1. R307-311 is entitled "Utah County: Trading of Emission Budgets for Transportation Conformity."

2. R307-311-1 "Purpose." The stated purpose of this new rule is:

> This rule establishes the procedures that may be used to trade a portion of the primary PM_{10} budget when demonstrating that a transportation plan, transportation improvement program, or project conforms with the motor vehicle emissions budgets in the Utah County portion of Section IX, Part A of the State Implementation Plan, "Fine Particulate Matter (PM_{10}).

3. R307-311-2. "Definitions." This section provides applicable definitions:

> The definitions contained in 40 CFR 93.101, effective as of the date referenced in R307-101-3,[1] are incorporated into this rule by reference. The following additional definitions apply to this rule.
>
> "Budget" means the motor vehicle emission projections used in the attainment demonstration in the Utah County portion of Section IX, Part A of the State Implementation Plan, "Fine Particulate Matter (PM10).
>
> "NOx" means oxides of nitrogen.

[1] R307-101-3 is approved into the Utah SIP and reflects a date of July 1, 2013 for incorporation by reference of federal rules.

> "Primary PM10" means PM10 that is emitted directly by a source. Primary PM10 does not include particulate matter that is formed when gaseous emissions undergo chemical reactions in the ambient air.
>
> "Transportation Conformity" means a demonstration that a transportation plan, transportation improvement program, or project conforms with the emissions budgets in a state implementation plan, as outlined in 40 CFR, Chapter 1, Part 93[2]; Determining Conformity of Federal Actions to State or Federal Implementation Plans.

4. R307-311-3. "Applicability". This portion of the rule defines its applicability. EPA notes that this rule may only be applied to Utah County and only for PM_{10}:

> (A) This rule applies to agencies responsible for demonstrating transportation conformity with the Utah County portion of Section IX, Part A of the State Implementation Plan, "Fine Particulate Matter (PM10).
>
> (B) This rule does not apply to emission budgets from Section IX, Part C.6 of the State Implementation Plan, "Carbon Monoxide Maintenance Provisions.

5. R307-311-4. "Trading Between Emission Budgets." This portion of the rule specifies the trading mechanism and provides the trading ratio of NOx and PM_{10}. In our section V below, EPA evaluates the technical justification provided in the TSD for the trading ratio. In this section, we find that the rule language establishes an appropriate trading mechanism for the Utah County NOx and PM_{10} motor vehicle emission budgets:

> The agencies responsible for demonstrating transportation conformity are authorized to supplement the budget for NOx with a portion of the budget for

[2] EPA notes this is applicable to projects not from a conforming RTP and TIP which must conform with the MVEBs. This clarification is only for those projects, and not projects from a conforming RTP and TIP. See 40 CFR 93.109(b) and 40 CFR 93.115(a).

primary PM10 for the purpose of demonstrating transportation conformity for NOx. The NOx budget shall be supplemented using the following procedures.

(a) The metropolitan planning organization shall include the following information in the transportation conformity demonstration:

(i) The budget for primary PM10 and NOx for each required year of the conformity demonstration, before trading allowed by this rule has been applied;

(ii) The portion of the primary PM10 budget that will be used to supplement the NOx budget, specified in tons per day using a 1:1 ratio of primary PM10 to NOx, for each required year of the conformity demonstration;

(iii) The remainder of the primary PM10 budget that will be used in the conformity demonstration for primary PM10, specified in tons per day for each required year of the conformity demonstration; and

(iv) The budget for primary PM10 and NOx for each required year of the conformity demonstration after the trading allowed by this rule has been applied.

(b) Transportation conformity for NOx shall be demonstrated using the NOx budget supplemented by a portion of the primary PM10 budget as described in (a)(ii). Transportation conformity for primary PM10 shall be demonstrated using the remainder of the primary PM10 budget described in (a)(iii).

(c) The primary PM10 budget shall not be supplemented by using a portion of the NOx budget.

V. EPA's Evaluation of the Technical Support Document for R307-311

The Governor's SIP revision submittal provided a TSD to support the new Rule R307-311 and address MVEB trading, as contemplated by 40 CFR 93.124(b), for PM_{10} and NOx in Utah County.

a. *Description*

PM_{10} is particulate matter with diameters smaller than 10 micrometers. PM_{10} consists of solid and/or liquid particles of; (1) primary particles that are directly emitted particulate matter (PM) or PM that quickly condenses upon release, and (2) secondary particles which are PM that is formed in the atmosphere from gaseous precursors. Important gaseous precursors to PM include sulfur dioxide (SO_2) which converts to sulfate (SO_4) particles, NO_x which converts to nitrate (NO_3) particles, volatile organic compounds (VOCs) some of which convert to secondary organic aerosols, and ammonia (NH_3) which adds to the mass of sulfate PM and allows nitric acid to convert to PM_{10} in the form of ammonium nitrate.

Currently in Utah County, the RTP and TIP must demonstrate conformity to the MVEBs for PM_{10} and NO_x that were derived from the 2002 EPA-approved PM_{10} attainment demonstration SIP (see 67 FR 78181, December 23, 2002). Since the regulatory goal is to achieve and maintain attainment of the NAAQS and conformity related to total PM_{10}, not individual components, it should not matter in the conformity analysis whether PM_{10} consists of directly emitted (primary) PM_{10} or secondary nitrate PM_{10} formed in the atmosphere from precursor NO_x gas emissions, provided the MVEBs for PM_{10} and NO_x are consistent with the SIP's demonstration of attainment. The state's TSD outlines the scientific rationale for why excess NO_x motor vehicle emissions (above the NOx MVEB level) can be offset, on a 1 to 1 basis, with available motor vehicle PM_{10} emissions (below the PM_{10} MVEB level). The State's TSD explains why the provisions of Rule R307-311 are considered conservative (i.e., protective

of the environment) in that the Rule only allows a one-way direction trading of the MVEBs and a trading ratio of only 1 to 1.

b. *What Fraction of the NOx Emissions in Utah County Convert to PM_{10}?*

The state's TSD describes how each ton of gaseous NO_x that gets converted to PM_{10} creates more than a ton of PM_{10} because the molecular weight of ammonium nitrate PM_{10} is greater than the molecular weight of NO_x gaseous emissions. Considering the ratio of the molecular weights of the NO_x precursor gas and the resulting ammonium nitrate aerosol (PM_{10}), the state notes that a ton of NO_x that is converted from a gas to a particle can form as much as 1.74 tons of PM_{10}.

However, not all NO_x emissions are converted because it takes time to convert NO_x to nitric acid (HNO_3), which is the necessary gaseous precursor to ammonium nitrate $PM_{10.}$ These reactions generally occur at rates of 1 to 10 percent per hour. It would take approximately at least 10 hours to fully convert to nitric acid. After this initial conversion, only a fraction of the gaseous nitric acid will condense as ammonium nitrate PM_{10}, depending on equilibrium considerations. Finally, during the gas-to-particle conversion process, deposition will remove a significant amount of material. Throughout this process of NO_x conversion to nitric acid, and then to PM_{10} and deposition, an equivalent amount of directly emitted PM_{10} is having a much larger effect on the PM_{10} concentration. Directly emitted PM_{10} has an effect on the ambient concentration immediately upon its release, while NO_x emissions require hours to have an effect.

From a historical perspective, the conversion of NO_x to PM_{10} has been discussed at EPA since at least 1996. In our 1996 proposed rule to revise the regulations for the Prevention of Significant Deterioration (PSD) and nonattainment New Source Review (NSR) programs, we

discussed a proposed approach for interpollutant trading for PM_{10} offsets in the nonattainment NSR program:

> The conversion process may depend on several variables, including the availability of chemical reactants in the atmosphere for the conversion process, and the difference in mass between the PM_{10} precursor molecule and the PM_{10} particle that the precursor reacts to become. Another concern is that the rate of conversion of the precursor to PM_{10} may be so long that the precursor may not entirely convert to PM_{10} within the same nonattainment area. Thus, there would be less counteracting effect and no net improvement to air quality in the area. Under the EPA's proposal, a source of a PM_{10} precursor may offset its increased emissions with the same precursor type or PM_{10} (or a combination of the two). In this situation, a net improvement in air quality would be assured. At this point, however, the EPA is not proposing to allow offsetting among different types of PM_{10} precursors, or offsetting PM_{10} increases with reduction in PM_{10} precursors, because the Agency does not now have a scientific basis to propose conversion factors. (61 FR 38305, July 23, 1996).

These statements were cited in our 2002 proposed approval of the MVEB trading rule (R307-310) for Salt Lake County. 67 FR 21609 (May 1, 2002).

However, EPA has more recently issued guidance on interpollutant trading provisions for fine particulate matter ($PM_{2.5}$) for offsets under the nonattainment NSR program. The guidance memorandum is entitled "Revised Policy to Address Reconsideration of Interpollutant Trading Provisions for Fine Particles (PM2.5)" and is dated July 21, 2011 (hereafter referred to as "Revised 2011 Trading Policy"). The Revised 2011 Trading Policy states in part (page 3, fourth

paragraph) that "… states will be expected to develop separate $PM_{2.5}$ precursor offset ratios that are demonstrated to be suitable for addressing the particular precursor's relationship with ambient $PM_{2.5}$ concentrations for 24-hour averaging periods that are causing violations in that nonattainment area." And on page 4, first paragraph; "… each ratio will need to be supported by modeling or other technical demonstration to show that such ratio is suitable for the particular $PM_{2.5}$ nonattainment area of concern... "

Our Revised 2011 Trading Policy provides a general framework for such efforts, involving the following steps:

1. Definition of the appropriate geographical area.

2. Sensitivity runs with appropriate air quality models.

3. Calculation of interpollutant ratios.

4. Quality assurance of the results.

To support Utah's rule R307-311, the UDAQ applied the above methodology to the Utah County 24-hour PM_{10} NAAQS nonattainment area. Although the Revised 2011 Trading Policy is specific to $PM_{2.5}$ and nonattainment NSR offsets, and is nonbinding guidance, in this action we consider that the recommendations in the Revised 2011 Trading Policy provide a suitable approach for a technical demonstration that the trading ratio for Utah County for the PM_{10} and NOx MVEBs is appropriate under 40 CFR 93.124(b).

The UDAQ states in the TSD that exceedances of the PM_{10} 24-hour NAAQS in Utah County are characterized by spikes in secondary aerosol formation under conditions of wintertime temperature inversions which prevent good atmospheric mixing and facilitate conversion of secondary PM_{10}. The UDAQ also states that a high percentage of the PM_{10} monitored in Utah County, during winter episodes of elevated concentration, lies also within the

$PM_{2.5}$ fraction. EPA also notes that the 2002 Utah County PM_{10} SIP revision identified both NOx and SO_2 as precursors to the formation of PM_{10}.

The TSD for Rule R307-311 identifies that parts of Utah County (the valley regions, western area of the County) are also designated as nonattainment for the 2006 24-hour $PM_{2.5}$ NAAQS (74 FR 58688, November 13, 2009). To meet the requirements set out in subparts 1 and 4 of Part D, title I of the CAA, the UDAQ developed a moderate area attainment plan for Utah County that (among other things) contained a demonstration that attainment of the 24-hour $PM_{2.5}$ standards by the applicable attainment date for moderate areas, December 31, 2015, is impracticable (hereafter "$PM_{2.5}$ Impracticability Demonstration"). This attainment plan was submitted by the Governor to EPA on December 16, 2014. The air quality modeling for the $PM_{2.5}$ Impracticability Demonstration was conducted by UDAQ using the Community Multi-Scale Air Quality model (CMAQ). CMAQ is also capable of determining the relative importance of NOx and PM_{10} in contributing to PM_{10} nonattainment.

The emission inventories that were developed by UDAQ for the Utah County $PM_{2.5}$ Impracticability Demonstration included $PM_{2.5}$, SO_2, NOx, VOC, Ammonia and PM_{10}.[3] As PM_{10} was inventoried for the $PM_{2.5}$ Impracticability Demonstration, this allowed CMAQ model sensitivity runs to be made for the purpose of evaluating and supporting the MVEB trading provisions in Rule R307-311. The UDAQ's methodology employed the CMAQ model, as developed for Utah County, with a substitution of PM_{10} emissions for $PM_{2.5}$. The UDAQ also notes in the Rule R307-311 TSD that the CMAQ model was re-validated with respect to PM_{10} emissions data from the appropriate episode period prior to making the sensitivity runs (refer to Appendix A of the TSD).

[3] We are not acting today on any portion of the state's December 16, 2014 submittal, including the $PM_{2.5}$ Impracticability Demonstration and the emission inventories.

Having made these adjustments to the CMAQ model, UDAQ ran the model to generate a time-series plot (refer to Appendix A of the TSD). The UDAQ determined that the ratio of NOx to PM_{10} equivalence was 5.702 to one. Since this ratio is considerably greater than 1:1, the UDAQ concluded that reducing primary PM_{10} is more beneficial than reducing NOx for improving Utah County's air quality with respect to PM_{10}. The EPA has evaluated this additional sensitivity modeling information and has concluded that it provides an adequate technical demonstration to support the MVEB trading provisions in Rule R307-311. Based on the demonstration, we also conclude that Rule R307-311 establishes an appropriate trading ratio, and that under Rule R307-311, there will not be adverse impacts to the overall ambient 24-hour PM_{10} concentrations within Utah County.

With regard to ambient 24-hour PM_{10} concentrations within Utah County, we have also evaluated the current (state-certified) 2011 through 2013 PM_{10} ambient air quality monitoring data for Utah County in EPA's Air Quality System (AQS), EPA's repository for the Nation's ambient air quality data. EPA's guidance for the calculation of 24-hour PM_{10} design value concentrations provide four techniques.[4] Our guidance's "Table Lookup" method shows a 2011 through 2013 PM_{10} design value concentration as 149μm^3 at the North Provo monitor and 124μm^3 at the Lindon monitor. These values, however, contain certain data quality issues such as missing days of monitoring data and zero reading days. We believe that if the statistical method from our guidance, "Using the empirical frequency distribution of several years of the data (graphical estimation)," is used, in this particular case it provides a more accurate representation of the monitoring data.[5] When using this statistical/graphic approach, the North Provo monitor

[4] PM_{10} SIP Development Guideline, EPA-450/2-86-001, June 1987, section 6.3; pages 6-3 through 6-8. The cited portions of this guidance are available in the docket for this action; the entire document is available online at http://www.epa.gov/ttn/caaa/t1/memoranda/pm10sip_dev_guide.pdf.

[5] Memorandum to File entitled "Utah PM_{10} 24-hour Design Concentrations," Richard M. Payton, USEPA Region 8,

then has a 2011 through 2013 PM_{10} design value concentration of 133.5 μm^3 and the Lindon monitor has a 2011 through 2013 design value concentration of 118.7 μm^3. However, EPA notes that regardless of the methodology used, Utah County continues to demonstrate attainment of the 24-hour PM_{10} NAAQS.

c. *Impact of the PM_{10} and NOx MVEB Trading Rule on Other Pollutants; EPA's Evaluation of Utah's Information Regarding the Provisions of Section 110(1) of the Clean Air Act*

Section 110(1) of the CAA states that a SIP revision cannot be approved if the revision would interfere with any applicable requirement concerning attainment and reasonable further progress towards attainment of a NAAQS or any other applicable requirement of the CAA. EPA's evaluation above shows that this SIP revision will not interfere with attainment of the PM_{10} NAAQS.

In addition to being a designated nonattainment area for PM_{10}, Utah County is also designated as nonattainment for the 2006 24-hour $PM_{2.5}$ NAAQS. The city of Provo, in Utah County, is designated as an attainment/maintenance area for carbon monoxide (CO). These criteria pollutants, along with the 2008 8-hour ozone NAAQS and the 1-hour nitrogen dioxide (NO_2) NAAQS, were evaluated by the state in the TSD for potential collateral impacts from the implementation of the provisions of Rule R307-311.

1. **$PM_{2.5}$**

As discussed above, part of Utah County (the western portion) was designated by EPA as nonattainment for the 2006 24-hour $PM_{2.5}$ NAAQS (74 FR 58688, November 13, 2009), and on December 16, 2014, the state submitted an attainment plan containing, among other things, the $PM_{2.5}$ Impracticability Demonstration. As with PM_{10} (described above), UDAQ performed sensitivity runs using the CMAQ modeling information that was developed for the $PM_{2.5}$

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dated April 22, 2015.

Impracticability Demonstration. This modeling exercise was performed in order to determine an equivalence ratio between NOx and $PM_{2.5}$. The resulting ratio of NOx to $PM_{2.5}$ was determined by the UDAQ to be 13.09 to 1.0. Similar to the result for PM_{10}, the ratio is greater than one to one, and illustrates that reducing primary $PM_{2.5}$ is more beneficial than reducing the same quantity of NOx.

However, Rule R307-311 provides for reductions in PM_{10}, and generally speaking, a reduction in PM_{10} is not necessarily a reduction in $PM_{2.5}$. So that the above $PM_{2.5}$ to NOx ratio could support a determination that Rule R307-311 would not have an adverse impact on overall $PM_{2.5}$ concentrations in Utah County, the UDAQ considered the physical make-up of PM_{10} emissions from on-road mobile sources in Utah County. The following table, presenting information from the TSD, considers PM emissions as they were inventoried for calendar year 2015 in the $PM_{2.5}$ Impracticability Demonstration for the Utah County $PM_{2.5}$ nonattainment area:

Table 1. Utah County; On-Road Mobile Source Emissions (in tons per day in 2015)

	PM_{10}	$PM_{2.5}$	$\%PM_{2.5}$
Road Dust	3.95	0.99	25.1
Direct PM	1.84	1.38	75.0
Total	5.79	2.37	40.9

As derived from the state's information and as presented in Table 1 above, for every ton of PM_{10} emissions due to on-road mobile sources, 0.409 tons would be composed of $PM_{2.5}$. The provisions of Rule R307-311 would allow a one-ton increase in NOx emissions that would be offset by a one-ton decrease in the PM_{10} emissions. Based on the information in the above table, the state concluded that a one-ton increase in NOx emissions would be offset by a 0.409-ton

decrease in $PM_{2.5}$ emissions. To illustrate, using the 1:0.409 ratio and the equivalence ratio of 13.09:1 for NOx to $PM_{2.5}$, a 13 ton increase in NOx emissions would equal a 1 ton increase of $PM_{2.5}$ emissions. However, applying the 1 to 1 trading ratio with PM_{10} would then require a 13 ton PM_{10} emissions decrease which is a 5.3 ton (13 x 0.409) $PM_{2.5}$ emissions decrease. This example results in a net 4.3 ton decrease in $PM_{2.5}$ emissions.

Based on this 1:0.409 ratio and the equivalence ratio of 13.09:1 for NOx to $PM_{2.5}$, the EPA can, therefore, agree with the state and conclude that Rule R307-311, with its requirements to allow the trading of the PM_{10} budget to the NOx budget in one direction only at a ratio of 1:1, would not have an adverse impact on overall ambient 24-hour $PM_{2.5}$ concentrations within Utah County.

The EPA notes that additional supporting information was provided in the $PM_{2.5}$ Impracticability Demonstration as it included an emission inventory of NOx emissions for calendar year 2015. The $PM_{2.5}$ Impracticability Demonstration notes that on-road mobile sources in Utah County are expected to account for 21.48 tons per winter weekday in 2015. The on-road mobile sources emissions were calculated using EPA's Motor Vehicle Emission Simulator (MOVES) model and the MOVES2010a version. This estimate is greater than the combined sum of the 2020 MVEBs for both PM_{10} and NOx contained in the EPA-approved 2002 SIP revision. To demonstrate, even if the entire PM_{10} MVEB was traded to increase the NOx MVEB as a result of the application of Rule R307-311, the resulting total NOx emissions would still be less than the 2015 estimated NOx emissions contained in the $PM_{2.5}$ Impracticability Demonstration.

2. **Carbon Monoxide (CO)**

As noted previously, the Provo-Orem area is a CO attainment/maintenance area (70 FR 66264, November 2, 2005). EPA notes that NOx emissions do not act as a precursor to carbon

monoxide; therefore, EPA has concluded that the application of the provisions of R307-311 will not impact the Provo-Orem CO maintenance plan or attainment of the CO NAAQS. The state notes in the Rule R307-311 TSD that CO maintenance plan has its own CO MVEB which has been set at a level demonstrated to keep the Provo-Orem area in attainment with the CO standard. The provisions of Rule R307-311 do not change the maintenance plan's CO MVEB.

For purposes of completeness, the state provided recent CO ambient air quality monitoring data in the Rule R307-311 TSD. These data have been excerpted by EPA and are provided in the table below:

Table 2. CO 1-hour and CO 8-hour Design Values

Year	Annual CO NAAQS (1-hour, 35 ppm)	8-hour CO NAAQS (9 ppm)
Monitor Location	North Provo	North Provo
2011	3.2 ppm	2.1 ppm
2012	2.8 ppm	1.9 ppm
2013	2.9 ppm	2.0 ppm
Preliminary 2014	2.8 ppm	1.9 ppm

As can be seen in Table 2 above, the Provo area continues to demonstrate compliance with both the CO Annual and CO 8-hour NAAQS.

3. **Ozone**

The EPA notes that NOx emissions are a precursor to the formation of ground level ozone, $PM_{2.5}$, and PM_{10}. With regard to ozone, we also note that Utah County has never been designated as nonattainment for any applicable ozone NAAQS. The current, applicable ozone NAAQS is the 2008 8-hour ozone NAAQS and Utah County was designated by EPA as

unclassifiable/attainment for that NAAQS (77 FR 30088, May 21, 2012). Thus, the state has not had to develop an ozone attainment plan or maintenance plan for Utah County.

To assess the potential impacts to Utah County's continued attainment of the 2008 8-hour ozone NAAQS, EPA considered ozone ambient air quality monitoring data for Utah County and predicted future-year NOx emission reductions from motor vehicles.

The state provided recent ozone air quality monitoring data in the Rule R307-311 TSD. EPA has excerpted that information from the TSD and presents those data in Table 3 below:

Table 3. 8-hour Ozone Design Values (DV)

Year	Monitor Location	8-hour ozone DV (NAAQS = 75 ppb)	Monitor Location	8-hour ozone DV (NAAQS = 75 ppb)
2011	North Provo	67.7 ppb	Spanish Fork	68.0 ppb
2012	North Provo	70.7 ppb	Spanish Fork	70.3 ppb
2013	North Provo	73.0 ppb	Spanish Fork	70.3 ppb
2014 (Preliminary)	North Provo	73.0 ppb	Spanish Fork	71.7 ppb

As can be seen in Table 3 above, Utah County continues to demonstrate compliance with 2008 8-hour ozone NAAQS.

The provisions of Rule R307-311 would allow for an increase in the Utah County PM_{10} SIP's NOx MVEB. However, EPA believes that regardless of this potential increase in the NOx MVEB, overall future NOx emissions from mobile sources will significantly decrease not only in Utah County, but in the nation as a whole. On April 28, 2014, we published a final rule adopting new Tier 3 emission standards and fuel requirements for motor vehicles and for motor vehicle fuels (79 FR 23414).

Our April 28, 2014 final rule included new Tier 3 emission standards to reduce exhaust and evaporative emissions from light-duty vehicles, light-duty trucks, and heavy-duty vehicles up to 14,000 pounds Gross Vehicle Weight Rating. In addition, the final rule specified corresponding changes to in-use fuel requirements. The motor vehicle tailpipe standards include different phase-in schedules that vary by vehicle class, but generally phase-in between model years 2017 to 2021 for light duty vehicles and up to 2025 for heavy duty vehicles. The vehicle emission standards combined with the reduction of gasoline sulfur content, which allows both current and new vehicle emission control systems to function at a higher pollutant removal efficiently, will significantly reduce motor vehicle emissions of NOx, VOCs, direct $PM_{2.5}$, CO and air toxics. Compared to current vehicle and fuel standards, the non-methane organic gases (NMOG) and NOx, presented as NMOG+NOx, Tier 3 tailpipe standards for light-duty vehicles are estimated to show an approximately 80% reduction from today's fleet average. As both NOx and VOCs contribute to the formation of ground level ozone and secondary $PM_{2.5}$, the EPA notes that these vehicle emission reductions will have a positive impact on all areas of the nation including Utah County. Additionally, we expect to see associated downward trends of CO, ozone, $PM_{2.5}$ and PM_{10} concentrations that will reflect the implementation of these fuel/vehicle emission improvements. Based on these expected reductions in motor vehicle emissions of NOx, along with the monitoring data showing that Utah County is currently attaining the 2008 ozone NAAQS, we conclude that Rule R307-311 will not interfere with attainment of the ozone NAAQS.

4. **NO_2**

The EPA notes that NOx emissions, which contain NO_2, are a precursor to the formation of ground level ozone, $PM_{2.5}$, and PM_{10}. We also note that Utah County was designated as

unclassifiable/attainment for the new, more stringent, 2010 1-hour NO_2 NAAQS (77 FR 9532, February 17, 2012).

To assess the potential impacts to Utah County's continued attainment of the 2010 1-hour NO_2 NAAQS, as that version of the NO_2 NAAQS is more constraining, EPA considered NO_2 ambient air quality monitoring data for Utah County. The state provided recent NO_2 air quality monitoring data in the Rule R307-311 TSD. EPA has excerpted that information from the TSD and presents those data in Table 4 below:

Table 4. NO_2 1-hour Design Values

Year	NO_2 NAAQS (DV 1-hour $\leq$ 100 ppb)
Monitor Location	North Provo
2011	54.7 ppb
2012	58.0 ppb
2013	66.3 ppb
Preliminary 2014	68.3 ppb

As can be seen in Table 4 above, Utah County continues to demonstrate compliance with 2010 1-hour NO_2 NAAQS with values well below the level of the NAAQS. We, therefore, conclude that Rule R307-311 will not interfere with attainment of the 1-hour NO_2 NAAQS.

d. *Conclusion*

On the basis of the above EPA analyses, we have concluded that using a portion of the Utah County PM_{10} SIP's PM_{10} MVEB to offset or compensate for excess on-road mobile sources NO_x emissions, on a one-to-one basis and in one direction only, continues to demonstrate attainment of the PM_{10} NAAQS and is conservative and justifiable. In addition, based on the

information in the Rule R307-311 TSD, and as supplemented by information prepared by EPA, we have concluded that with the implementation of the provisions in Rule R307-311 there will not be adverse effects to the CO, $PM_{2.5}$, 8-hour ozone, and NO_2 1-hour NAAQS. These statements are with respect to the implementation of the provisions of Rule R307-311 by MAG when MAG performs a transportation conformity determination for its RTP and/or TIP.

VI. Consideration of Section 110(l) of the Clean Air Act

Section 110(l) of the CAA states that a SIP revision cannot be approved if the revision would interfere with any applicable requirement concerning attainment and reasonable further progress towards attainment of a NAAQS or any other applicable requirement of the CAA. In view of the state's rule language for its new Rule R307-311, our analyses presented above in section "V. EPA's Evaluation of the Technical Support Document for R307-311" with respect to PM_{10}, $PM_{2.5}$, ozone and NO_2, and the fact that NO_x has less impact on a per ton basis than primary PM_{10} emissions in Utah County, we have concluded there will be a net benefit on ambient air concentrations of PM_{10} when excess NO_x emissions are offset on a one to one basis. Therefore, implementation of the provisions of Rule R307-311 will allow the continued demonstration of attainment of the PM_{10} NAAQS in Utah County and is conservative and justifiable. We have also concluded there will be no adverse impact on any other NAAQS or applicable requirement of the CAA. Therefore, our approval of the State's Rule R307-311 is consistent with section 110(l) of the CAA.

VII. Final Action

The EPA is publishing this rule without prior proposal because the Agency views the Governor of Utah's March 9, 2015 submitted SIP revisions for Utah's Rule R307-311 and the Rule's associated TSD as a noncontroversial amendment and anticipates no adverse comments.

However, in the Proposed Rules section of today's **Federal Register** publication, EPA is publishing a separate document that will serve as the proposal to approve the SIP revision if adverse comments are filed. This rule will be effective [**Insert date 60 days after publication in the Federal Register**] without further notice unless the Agency receives adverse comments by [**Insert date 30 days after publication in the Federal Register**]. If the EPA receives adverse comments, the EPA will publish a timely withdrawal in the **Federal Register** informing the public that the rule will not take effect. The EPA will address all public comments in a subsequent final rule based on the proposed rule. The EPA will not institute a second comment period on this action. Any parties interested in commenting must do so at this time. Please note that if the EPA receives adverse comment on an amendment, paragraph, or section of this rule and if that provision may be severed from the remainder of the rule, the EPA may adopt as final those provisions of the rule that are not the subject of an adverse comment.

VIII. Incorporation by Reference

In this rule, the EPA is finalizing regulatory text that includes incorporation by reference. In accordance with requirements of 1 CFR 51.5, the EPA is finalizing the incorporation by reference of the Utah SIP materials and rules described in the amendments to 40 CFR part 52 set forth below. The EPA has made, and will continue to make, these documents generally available electronically through www.regulations.gov and/or in hard copy at the appropriate EPA office (see the ADDRESSES section of this rule's preamble for more information).

IX. Statutory and Executive Order Reviews

Under Executive Order 12866 (58 FR 51735, October 4, 1993), this action is not a "significant regulatory action" and therefore is not subject to review by the Office of Management and Budget. For this reason, this action is also not subject to Executive Order

13211, "Actions Concerning Regulations That Significantly Affect Energy Supply, Distribution, or Use" (66 FR 28355, May 22, 2001). This action merely approves state law as meeting Federal requirements and imposes no additional requirements beyond those imposed by state law. Accordingly, the Administrator certifies that this rule will not have a significant economic impact on a substantial number of small entities under the Regulatory Flexibility Act (5 U.S.C. 601 et seq). Because this rule approves pre-existing requirements under state law and does not impose any additional enforceable duty beyond that required by state law, it does not contain any unfunded mandate or significantly or uniquely affect small governments, as described in the Unfunded Mandates Reform Act of 1995 (Public Law 104-4).

The SIP is not approved to apply on any Indian reservation land or in any other area where EPA or an Indian tribe has demonstrated that a tribe has jurisdiction. In those areas of Indian country, the rule does not have tribal implications and will not impose substantial direct costs on tribal governments or preempt tribal law as specified by Executive Order 13175 (65 FR 67249, November 9, 2000). This action also does not have Federalism implications because it does not have substantial direct effects on the states, on the relationship between the national government and the states, or on the distribution of power and responsibilities among the various levels of government, as specified in Executive Order 13132 (64 FR 43255, August 10, 1999). This action merely approves a state rule implementing a Federal standard, and does not alter the relationship or the distribution of power and responsibilities established in the Clean Air Act. This rule also is not subject to Executive Order 13045 "Protection of Children from Environmental Health Risks and Safety Risks" (62 FR 19885, April 23, 1997), because it approves a state rule implementing a Federal standard.

In reviewing SIP submissions, EPA's role is to approve state choices, provided that they

meet the criteria of the Clean Air Act. In this context, in the absence of a prior existing requirement for the state to use voluntary consensus standards (VCS), EPA has no authority to disapprove a SIP submission for failure to use VCS. It would thus be inconsistent with applicable law for EPA, when it reviews a SIP submission; to use VCS in place of a SIP submission that otherwise satisfies the provisions of the Clean Air Act. Thus, the requirements of section 12(d) of the National Technology Transfer and Advancement Act of 1995 (15 U.S.C. 272 note) do not apply. This rule does not impose an information collection burden under the provisions of the Paperwork Reduction Act of 1995 (44 U.S.C. 3501 et seq).

The Congressional Review Act, 5 U.S.C. section 801 et seq, as added by the Small Business Regulatory Enforcement Fairness Act of 1996, generally provides that before a rule may take effect, the agency promulgating the rule must submit a rule report, which includes a copy of the rule, to each House of the Congress and to the Comptroller General of the United States. EPA will submit a report containing this rule and other required information to the U.S. Senate, the U.S. House of Representatives, and the Comptroller General of the United States prior to publication of the rule in the **Federal Register**. A major rule cannot take effect until 60 days after it is published in the **Federal Register**. This action is not a "major rule" as defined by 5 U.S.C. section 804(2).

Under section 307(b)(1) of the Clean Air Act, petitions for judicial review of this action must be filed in the United States Court of Appeals for the appropriate circuit by [**Insert date 60 days from date of publication of this document in the Federal Register**]. Filing a petition for reconsideration by the Administrator of this final rule does not affect the finality of this action for the purposes of judicial review nor does it extend the time within which a petition for judicial review may be filed, and shall not postpone the effectiveness of such rule or action. Parties with

objections to this direct final rule are encouraged to file a comment in response to the parallel notice of proposed rulemaking for this action published in the proposed rules section of today's Federal Register, rather than file an immediate petition for judicial review of this direct final rule, so that EPA can withdraw this direct final rule and address the comment in the proposed rulemaking. This action may not be challenged later in proceedings to enforce its requirements. (See CAA section 307(b)(2).)

List of Subjects in 40 CFR Part 52

Environmental protection, Air pollution control, Carbon monoxide, Incorporation by reference, Intergovernmental relations, Nitrogen dioxide, Ozone, Particulate matter, Reporting and recordkeeping requirements, and Volatile organic compounds.

Authority: 42 U.S.C. 7401 et seq.

Dated: May 1, 2015.

Shaun L. McGrath,
Regional Administrator,
Region 8.

40 CFR part 52 is amended to read as follows:

PART 52 [AMENDED]

1. The authority citation for Part 52 continues to read as follows:

Authority: 42 U.S.C. 7401 et seq.

Subpart TT - Utah

2. Section 52.2320 is amended by adding paragraph (c)(79) to read as follows:

52.2320 Identification of plan.

* * * * *

(c) * * *

(79) Revisions to the Utah State Implementation Plan involving Utah Rule R307-311; Utah County: Trading of Emission Budgets for Transportation Conformity. The Utah Air Quality Board adopted this SIP revision on March 4, 2015, it became state effective on March 5, 2015, and was submitted by the Governor to EPA by a letter dated March 9, 2015.

(i) Incorporation by reference.

(A) Utah Rules R307, Environmental Quality, Air Quality, R307- 311, Utah County: Trading of Emission Budgets for Transportation Conformity. Effective March 5, 2015, as proposed in the Utah State Bulletin on January 1, 2015 and published on April 1, 2015 as effective.

[FR Doc. 2015-11784 Filed: 5/15/2015 08:45 am; Publication Date: 5/18/2015]