



ENVIRONMENTAL PROTECTION AGENCY

40 CFR Part 52

[EPA-R09-OAR-2011-0552; FRL-9748-9]

**Approval and Promulgation of Implementation Plans; Arizona;
Motor Vehicle Inspection and Maintenance Programs**

AGENCY: Environmental Protection Agency (EPA).

ACTION: Proposed rule.

SUMMARY: EPA is proposing to approve three revisions to the Arizona State Implementation Plan submitted by the Arizona Department of Environmental Quality. Two of these revisions relate to an amendment to Arizona's Basic and Enhanced Vehicle Emissions Inspection Programs that would exempt motorcycles in the Phoenix metropolitan area from emissions testing requirements. The third revision would expand the geographic area in which various air quality control measures, including the vehicle emissions inspection program but also including other control measures, apply in the Phoenix metropolitan area. EPA is proposing approval of these SIP revisions because we have found that they meet all applicable requirements and would not interfere with reasonable further progress or attainment of any of the national ambient air quality standards. EPA is proposing this action under the Clean Air Act obligation to take action on State submittals of revisions to state implementation plans.

DATES: Written comments must be received on or before [Insert date 30 days from date of publication in the Federal Register].

ADDRESSES: Submit your comments, identified by Docket No. EPA-R09-OAR-2011-0552, by one of the following methods:

1. Federal Rulemaking Portal: <http://www.regulations.gov>.

Follow the on-line instructions for submitting comments.

2. E-mail: Jeffrey Buss at buss.jeffrey@epa.gov.

3. Fax: Jeffrey Buss, Air Planning Office (AIR-2), at fax number 415-947-3579.

4. Mail: Jeffrey Buss, Air Planning Office (AIR-2), U.S. Environmental Protection Agency, Region IX, 75 Hawthorne, San Francisco, California 94105.

5. Hand or Courier Delivery: Jeffrey Buss, Air Planning Section (AIR-2), U.S. Environmental Protection Agency, Region IX, 75 Hawthorne, San Francisco, California 94105. Such deliveries are only accepted during the Regional Office's normal hours of operation. Special arrangements should be made for deliveries of boxed information.

Instructions: Direct your comments to Docket ID No. EPA-R09-OAR-2011-0552. EPA's policy is that all comments received will be included in the public docket without change and may be made available online at www.regulations.gov, including any personal information provided, unless the comment includes information claimed to be Confidential Business Information (CBI) or other

information the disclosure of which is restricted by statute. Do not submit information through www.regulations.gov or e-mail that you consider to be CBI or otherwise protected from disclosure. The 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 e-mail comment directly to EPA without going through www.regulations.gov, your e-mail 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.

Docket: All documents in the docket are listed in the 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 www.regulations.gov or in hard copy at the Air Planning Office (AIR-2), U.S. Environmental Protection Agency, Region IX, 75 Hawthorne Street, San Francisco, California 94105. EPA requests that if at all possible, you contact the person listed in the **FOR FURTHER INFORMATION CONTACT** section to schedule your inspection during normal business hours.

FOR FURTHER INFORMATION CONTACT: Jeffrey Buss, Office of Air Planning, U.S. Environmental Protection Agency, Region 9, (415) 947-4152, e-mail: buss.jeffrey@epa.gov.

SUPPLEMENTARY INFORMATION: Throughout this document, the terms "we," "us," and "our" refer to EPA.

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I. Introduction and Background

In May 1995, EPA approved Arizona's Basic and Enhanced Vehicle Emissions Inspection/Maintenance (VEI) Programs as a revision to the Arizona State Implementation Plan (SIP) under the Clean Air Act, as amended in 1990 (CAA or "Act") and EPA's motor vehicle inspection and maintenance rule ("EPA's I/M rule" or "federal I/M rule") as amended. See 60 FR 22518 (May 8, 1995). A "basic" I/M program was required in the Phoenix metropolitan area (referred to as "Area A") due to the area's designation as a "moderate" nonattainment area for the carbon monoxide (CO) and the 1-hour ozone national ambient air quality standards (NAAQS or "standard").¹ The VEI program was designed to reduce emissions of CO, volatile organic compounds (VOC) and

¹ The Phoenix metropolitan area is also a nonattainment area for respirable particulate matter (PM₁₀); however, the VEI program plays a very minor role in the control strategy for this pollutant. There is no CAA requirement for I/M programs in PM₁₀ nonattainment areas and no PM₁₀ reduction credited from EPA's emission models, MOBILE 6.2 or MOVES.

oxides of nitrogen (NO_x).² At that time, although it was not required to have an "enhanced" I/M program, Arizona was implementing most elements of an enhanced program in Phoenix. Arizona's program, as implemented in Phoenix, however, was not approved as an enhanced program, because the program did not satisfy all the requirements in EPA's I/M rule for enhanced programs. An enhanced I/M program became a requirement for the Phoenix area when the area was reclassified from "moderate" nonattainment to "serious" nonattainment for the CO NAAQS effective August 28, 1996 (61 FR 39343, July 29, 1996), and when the area was reclassified from "moderate" nonattainment to "serious" nonattainment for the 1-hour ozone NAAQS effective February 13, 1998 (63 FR 7290 February 13, 1998).

Since the Arizona VEI programs were originally approved in May 1995, EPA has amended the federal I/M rule several times to provide states with more flexibility in designing their programs but also to require testing of the on-board diagnostic (OBD) system. Since that time, Arizona has also made a number of changes to its enhanced and basic VEI programs.

In January 2003, we approved changes to the Arizona VEI programs submitted to us on July 6, 2001 and April 10, 2002, including the incorporation of OBD testing, an exemption for the

² VOC and NO_x are precursors to ozone formation in the atmosphere under the influence of sunlight and meteorology.

first five model year vehicles from the programs on a rolling basis, replacement of the previously-approved remote sensing program in Phoenix with an on-road testing study, and legislative changes to the waiver provisions. See 68 FR 2912 (January 22, 2003). In our January 2003 final rule, we also approved the VEI program in the Phoenix area as meeting the enhanced I/M program performance standard.

In our January 2003 final rule, we also approved an expansion of the geographic area in which the VEI program in the Phoenix area applies, an area referred to as "Area A." Area A, as approved in 2003, includes all of the metropolitan Phoenix carbon monoxide and 1-hour ozone nonattainment areas plus additional areas in Maricopa County to the north, east, and west, as well as a small portion of Yavapai County and the western portions of Pinal County. "Area A" is also used by the State of Arizona to identify the applicable area for implementation of a number of other air pollution control measures, including but not limited to the EPA-approved cleaner burning gasoline (CBG) and stage II vapor recovery programs. See, e.g., 69 FR 10161 (March 4, 2004) (approval of CBG program), and 77 FR 35279 (June 13, 2012) (approval of revised Stage II vapor recovery program). "Area A" is defined at Arizona Revised Statutes (ARS) section 49-541, subsection (1).

In April 2004, we published a final rule governing the transition from the 1-hour ozone NAAQS to the 8-hour ozone standard that we promulgated in 1997. See 69 FR 23951 (April 30, 2004).³ Under our April 2004 final rule, we established certain "anti-backsliding requirements" that would continue to apply to 8-hour ozone nonattainment areas based on an area's designation and classification for the 1-hour ozone standard at the time of designation for the 1997 8-hour ozone standard, even after revocation of the 1-hour ozone standard. The I/M program requirement was included in the list of such "anti-backsliding" requirements. See 40 CFR 51.900(f)(2) and 51.905(a)(1)(i).

In April 2004, we published a second final rule related to ozone, and in this other rule, we designated the Phoenix-Mesa area as a nonattainment area for the 1997 8-hour ozone standard, 69 FR 23858, at 23878 (April 30, 2004), and, later, classified the area as "Subpart 2/Marginal" for that standard, 77 FR 28424 (May 14, 2012). Thus, the requirement to continue to implement an enhanced I/M program continues to apply in the Phoenix metropolitan area based the area's designation and classification for the 1-hour ozone standard notwithstanding revocation of the 1-hour ozone standard in June 2005.

³ In 1997, EPA promulgated an 8-hour ozone standard [0.08 parts per million (ppm)] to replace the 1-hour ozone standard. The 1-hour ozone standard was revoked effective June 15, 2005.

In 2005, we approved maintenance plans and redesignation requests for both the carbon monoxide and 1-hour ozone standards in the Phoenix area. See 70 FR 11553 (March 9, 2005) (carbon monoxide redesignation request and maintenance plan approval), and 70 FR 34362 (June 14, 2005) (1-hour ozone redesignation request and maintenance plan approval). Both approved maintenance plans include "Expansion of Area A Boundaries" as a contingency measure.⁴ In these plans, "Expansion of Area A Boundaries" refers to an amendment to the definition of Area A in ARS 49-541 that was made by the Arizona Legislature in 2001 to expand the boundaries of this area beyond the boundaries approved by EPA in 2003 to add portions of Maricopa County west of Goodyear and Peoria and a small piece of land on the north side of Lake Pleasant in Yavapai County. In light of the fact that the Legislature had already acted, the two maintenance plans noted that "Expansion of Area A" was an example of "early implementation" of a contingency measure.

In March 2007, we approved changes to the Arizona VEI programs submitted to us on December 23, 2005 and October 3, 2006, including an exemption for collectible vehicles from VEI testing in the Phoenix metropolitan area, and collectible

⁴ See page ES-6 of the Maricopa Association of Government's (MAG's) *Carbon Monoxide Redesignation Request and Maintenance Plan for the Maricopa County Nonattainment Area (May 2003)* and page ES-9 of MAG's *One-Hour Ozone Redesignation Request and Maintenance Plan for the Maricopa County Nonattainment Area (March 2004)*.

vehicles and motorcycles from VEI testing in the Tucson metropolitan area. See 72 FR 15046 (March 30, 2007). In our March 2007 rule, we also approved an updated performance evaluation standard for the VEI program in the Phoenix area; and new contingency measures.

On June 13, 2007, ADEQ submitted the *Eight-Hour Ozone Plan for the Maricopa Nonattainment Area (June 2007)* ("Phoenix-Mesa Eight-Hour Ozone Attainment Plan") to demonstrate attainment of the 1997 8-hour ozone standard in the Phoenix-Mesa nonattainment area by June 2009. Similar to the carbon monoxide and 1-hour ozone maintenance plans, the Phoenix-Mesa Eight-Hour Ozone Attainment Plan does not take emissions reduction credit for "Expansion of Area A Boundaries" to demonstrate attainment or maintenance but lists "Expansion of Area A Boundaries" as a contingency measure. We approved the plan at 77 FR 35285 (June 13, 2012). As a contingency measure, ADEQ estimated that "Expansion of Area A Boundaries" would reduce VOC emissions by approximately 1.3 metric tons per day by increasing the number of vehicles subject to the VEI program.⁵

In March 2009, ADEQ submitted the *MAG Eight-Hour Ozone Redesignation Request and Maintenance Plan for the Maricopa*

⁵ See pages V-20 and V-21 of exhibit 2 ("Technical Support Document for Ozone Modeling in Support of the Eight-Hour Ozone Plan for the Maricopa Nonattainment Area") of appendix A to the Phoenix-Mesa Eight-Hour Ozone Attainment Plan.

Nonattainment Area (February 2009) ("Phoenix-Mesa Eight-Hour Ozone Maintenance Plan") to demonstrate the criteria for redesignation to "attainment" have been satisfied and to demonstrate maintenance of the 1997 8-hour ozone standard through year 2025. Unlike the previous plans, the Phoenix-Mesa Eight-Hour Ozone Maintenance Plan includes "Expansion of Area A Boundaries" as a measure for which credit is taken to demonstrate maintenance of the 1997 8-hour ozone standard through 2025.⁶ The maintenance demonstration in the Phoenix-Mesa Eight-Hour Ozone Maintenance Plan specifically excludes motorcycles from the calculated emissions reductions from the VEI.⁷

We have not yet taken action on the Phoenix-Mesa Eight-Hour Ozone Maintenance Plan and do not propose action related to that plan herein. However, today's proposed approval of the expansion of Area A boundaries, as codified in amended ARS 49-541(1) and submitted on May 25, 2012 in connection with the 2012 Phoenix Area PM-10 Five Percent Plan (discussed in the following section of this document), provides support for the Phoenix-Mesa Eight-Hour Ozone Maintenance Plan given its reliance on the expansion of Area A boundaries in maintaining the 1997 8-hour ozone standard once the area is redesignated. EPA will take action on

⁶ See page ES-4 of the Phoenix-Mesa Eight-Hour Ozone Maintenance Plan.

⁷ See page 3-12 of the Phoenix-Mesa Eight-Hour Ozone Maintenance Plan.

the Phoenix-Mesa Eight-Hour Ozone Maintenance Plan in one or more future rulemakings.

Lastly, in March 2008, EPA revised the 8-hour ozone standard to 0.075 parts per million (ppm). See 73 FR 16436 (March 27, 2008). More recently, we designated the Phoenix-Mesa area as a "Marginal" nonattainment area for the 2008 ozone standard, effective July 20, 2012. See 77 FR 30088 (May 21, 2012). Such "Marginal" nonattainment areas must attain the standard as expeditiously as practicable but not later than July 20, 2015 (i.e., 3 years from July 20, 2012, the effective date of the nonattainment designation).

II. Summary of Arizona's SIP Submittals

The Arizona Department of Environmental Quality (ADEQ) submitted the most recent statutory changes to its Basic and Enhanced VEI Programs as a revision to the Arizona State Implementation Plan (SIP) on November 6, 2009 ("2009 VEI SIP Revision"). The 2009 VEI SIP Revision submittal includes the SIP revision itself, divided into a non-regulatory portion, "Final Arizona State Implementation Plan Revision, Exemption of Motorcycles from Vehicle Emissions Inspection/Maintenance Requirements in Area A" (October 2009), and a regulatory portion, House Bill (HB) 2280, as well as supporting materials related to legal authority, adoption, public process and technical analysis.

HB 2280 amends the Arizona Revised Statutes (ARS) Section 49-542 by exempting motorcycles from emissions testing in Area A (i.e., the Phoenix area). Specifically, the amendments to ARS 49-542 are found in paragraphs or subparagraphs (F)(2)(e), (F)(3), (J)(2)(1), and (K) of that section of code. The changes to ARS Section 49-542 are self-implementing, which means that they become effective upon EPA approval as a revision to the Arizona SIP. Section 2 of HB 2280 provides that the exemption becomes effective upon EPA approval of a SIP revision on or before July 10, 2010.

In consultation with EPA concerning the VEI SIP Revision, ADEQ prepared additional information regarding the impacts of the motorcycle exemption on attainment of the 2008 8-hour ozone NAAQS and the 1987 PM₁₀ NAAQS. On January 11, 2011, ADEQ adopted and submitted the additional information and a replacement measure in a supplemental SIP revision, entitled, "Addendum to the Arizona State Implementation Plan Revision, Exemption of Motorcycles from Vehicle Emissions Inspections and Maintenance Program Requirements in Area A, October 2009" (December 2010) ("2011 VEI SIP Addendum"). In the cover letter to the 2011 VEI SIP Addendum, ADEQ indicated that, through House Bill 2033 adopted in April 2010, the Arizona Legislature had extended the

date authorizing the motorcycle exemption to July 2012.⁸ Also, as part of the submittal of the 2011 VEI SIP Addendum, ADEQ documented the public participation process that was conducted by ADEQ prior to adoption and submittal of the Addendum to EPA.

On May 25, 2012, ADEQ submitted *the MAG 2012 Five Percent Plan for PM-10 for the Maricopa County Nonattainment Area (May 2012)* ("2012 Phoenix Area PM-10 Five Percent Plan"). The 2012 PM-10 Phoenix Area Five Percent Plan was submitted to provide for attainment of the PM₁₀ standard and an annual reduction in PM₁₀ emissions within the area of not less than five percent until attainment of the standard. Among the statutes submitted as part of the 2012 Phoenix Area PM-10 Five Percent Plan for approval as part of the Arizona SIP is ARS 49-541(1), which establishes the boundaries of Area A as expanded by the Arizona Legislature in 2001.⁹ As noted, several previous plans for the Phoenix area had included "Expansion of Area A Boundaries" as a contingency measure, but the more recent submitted plans, including the Phoenix-Mesa Eight-Hour Ozone Maintenance Plan and the 2012 Phoenix Area PM-10 Five Percent Plan, rely on it as part of the long-term control or maintenance strategy. With respect to ADEQ's May 25, 2012 SIP revision submittal of the

⁸ Through House Bill 2073 in 2012, the Arizona Legislature has further extended the date authorizing the motorcycle exemption to July 2014.

⁹ See exhibit 1 in Appendix C to the 2012 PM-10 Five Percent Plan.

2012 Phoenix Area PM-10 Five Percent Plan, EPA is proposing action only on the amended statutory provision that expands the boundaries of Area A [i.e., amended ARS 49-541(1)]. EPA will take action on the rest of the 2012 Phoenix Area PM-10 Five Percent Plan in one or more future rulemakings.

III. EPA Review of the SIP Revisions

A. CAA Procedural Provisions

CAA section 110(l) requires revisions to a SIP to be adopted by the state after reasonable notice and public hearing. EPA has promulgated specific requirements for SIP revisions in 40 CFR part 51, subpart F.

On September 14 and 15, 2009, ADEQ published notices in newspapers of general circulation in the Phoenix area of public hearings on proposed revisions to the Arizona SIP to exempt motorcycles in Phoenix from emissions testing requirements under the Arizona VEI programs (i.e., a draft VEI SIP Revision). Public hearings were held on October 15, 2009 in Phoenix. On November 6, 2009, in accordance with Arizona law, ADEQ adopted these exemptions as set forth in "Final Arizona State Implementation Plan Revision, Exemption of Motorcycles from Vehicle Emissions Inspection/Maintenance Requirements in Area A" (October 2009) as a revision to the Arizona SIP and submitted the revision to EPA for approval.

ADEQ followed a similar process in adopting and submitting the 2011 VEI SIP Addendum. ADEQ held a public hearing on December 15, 2010 in Phoenix on a draft VEI SIP Addendum and adopted the VEI SIP Addendum on January 11, 2011 in accordance with Arizona law prior to submittal to EPA as a revision to the Arizona SIP.

ADEQ also provided for public comment and hearing of the 2012 Phoenix Area PM-10 Five Percent Plan. Specifically, ADEQ published notice of the start of a 30-day comment period on March 12, 2012. In this notice, ADEQ also provided notice of a public hearing that was, as scheduled, held on April 12, 2012. See exhibit 1 ("Public Hearing Process Documentation") to appendix E to the 2012 Phoenix Area PM-10 Five Percent Plan.

ADEQ's 2009 VEI SIP Revision, 2011 VEI SIP Addendum, and 2012 Phoenix Area PM-10 Five Percent Plan submittal packages include evidence of public notice and hearing, ADEQ responses to public comments, and ADEQ adoption as described above, and, based on review of these materials, we find that ADEQ has met the procedural requirements of CAA section 110(1) and 40 CFR part 51, subpart F.

B. I/M Program Requirements

As noted in Section I, Introduction and Background, herein, Arizona's VEI programs were most recently approved as meeting federal I/M program requirements on March 30, 2007 (72 FR

15046). Although the Phoenix and Tucson areas have been redesignated to "attainment" for the CO NAAQS, the VEI programs continue to be relied upon to maintain the CO standard in those areas. Moreover, "enhanced" I/M remains an "applicable requirement" for the Phoenix area under our final rule implementing the 8-hour ozone NAAQS (see 40 CFR 51.900(f) and 51.905(a)(1)) based on the designation of that area as a nonattainment area for the 8-hour ozone NAAQS (and designation as nonattainment for the 1-hour ozone NAAQS at the time of designation for the 8-hour standard). Thus, to be approved, the VEI programs, as amended and evaluated herein, must continue to meet the relevant enforceability requirements for I/M programs in subpart S of 40 CFR part 51 and, for the Phoenix area with respect to ozone, the enhanced performance standard in 40 CFR 51.351. In the following paragraphs, we review ADEQ's 2009 VEI SIP Revision and 2011 VEI SIP Addendum to determine whether the amended VEI programs continue to meet federal I/M program requirements.

The aspects of I/M affected by the submitted revisions to the VEI programs and the expansion of Area A boundaries include geographic coverage, vehicle coverage and exemptions, compliance enforcement, and the performance standard evaluation.

1. Geographic Coverage

EPA's I/M regulations require that state I/M programs be implemented in the entire urbanized area, based on the 1990 census. See 40 CFR 51.350. We have found in our approvals of the Arizona VEI program in 1995 and 2003 that the geographic coverage of the VEI program in the Phoenix area meets the minimum requirements of EPA's I/M regulations. Since then, no regulatory changes or new designations have changed the minimum requirements with respect to the geographic coverage of the I/M program in the Phoenix area, and thus, the expansion of the boundaries of Area A, which define the area in which the VEI program is implemented, is also acceptable.

2. Vehicle Coverage and Exemptions

The performance standard for enhanced I/M programs (including alternate low enhanced programs) assumes coverage of all 1968 and later model year light duty vehicles and trucks. Light duty trucks are not included in the performance standard for basic I/M programs. Other levels of coverage may be approved if the necessary emission reductions are achieved. See 40 CFR 51.356.

The Arizona VEI programs approved by EPA in 1995 exempt several categories of vehicles from the emissions testing requirements. Such vehicle categories included, among others, vehicles manufactured in or before the 1966 model year and vehicles being sold between motor vehicle dealers. See 60 FR

22518, 22521 (May 8, 1995). In 2003, we approved revisions to the VEI programs including an exemption for the first five model year vehicles on a rolling basis. See 68 FR 2912 (January 22, 2003). In 2007, we exempted collectible vehicles from the Phoenix and Tucson areas and motorcycles from the Tucson area. The SIP revision we are acting on today would establish an additional vehicle category that would be exempt from emissions testing requirements: motorcycles from the Phoenix area. Based on data for calendar year 2008, motorcycles make up approximately 38,100 (or 3.7 percent) of the 1,027,600 total number of vehicles subject to VEI in the Phoenix area. See table 9 on page 17 of the 2009 VEI SIP Revision.

Basic and enhanced I/M programs are not required to test any particular category of motor vehicles so long as the performance standard is met, and thus I/M programs are not required to test motorcycles. The effect of the new exemption for motorcycles on the continued ability of the VEI program in the Phoenix area to meet the enhanced I/M program performance standard is discussed below in Section III.B.3, "Performance Evaluation," and the effect of the new exemptions on emissions and ambient air quality in Phoenix is discussed herein in Section III.C, "Demonstrating Noninterference With Attainment And Maintenance Under CAA Section 110(1)."

3. Compliance Enforcement

Section 51.361 of title 40 of the CFR requires that denial of motor vehicle registration be the method used to ensure compliance with enhanced I/M programs. ARS Section 49-542(D) and Arizona Administrative Code (AAC) R18-2-1007 requires that all vehicles must complete a vehicle emissions inspection to obtain a vehicle registration.

Exemption of motorcycles in the Phoenix area from emissions testing would be straightforward from the standpoint of compliance enforcement and would not undermine compliance enforcement for other types of vehicles that continue to be subject to the emissions testing requirements under the VEI program in the Phoenix area. Owners of motorcycles registered in the Phoenix area will simply receive a registration or re-registration form from the Arizona Department of Transportation, Motor Vehicle Division that indicates "emissions test not required."

Therefore, we find that the Arizona VEI programs, as amended to exempt motorcycles in the Phoenix area, would continue to meet the compliance enforcement requirements of 40 CFR 51.361.

4. Performance Evaluation

As part of the 2009 VEI SIP Revision submittal, ADEQ provided an updated performance evaluation using the EPA's motor

vehicle emissions model, MOBILE6.2.¹⁰ The updated performance evaluation included a summary report and paper copies of MOBILE6.2 input and output files. The purpose of the updated performance evaluation is to determine whether the VEI program, as amended to exempt motorcycles, would continue to meet the federal enhanced I/M performance standard (codified at 40 CFR 51.351) in the Phoenix area. The need for an updated performance evaluation follows from the fact that the Phoenix area, which was designated as nonattainment for the 1-hour ozone NAAQS (at the time of designation for the 8-hour ozone nonattainment), is designated as nonattainment for the 8-hour ozone NAAQS and that enhanced I/M remains an "applicable requirement" for such areas under our final rule implementing the 8-hour ozone NAAQS [see 40 CFR 51.900(f) and 51.905(a)(1)].

For the updated evaluation, ADEQ developed and applied reduction factors to exclude motorcycles from the fleet tested under the VEI program as provided for in HB 2280. ADEQ then compared the emissions reduction benefits from the revised VEI program with the corresponding benefits that would be achieved under EPA's alternate low enhanced I/M performance standard.

¹⁰ ADEQ submitted the 2009 VEI SIP Revision prior to the availability and requirement to use EPA's Motor Vehicle Emissions Simulator model "MOVES2010". While ADEQ's 2011 VEI SIP Addendum was submitted after the availability of MOVES2010, we did not require the use of the new MOVES2010 model because significant work had already begun on the SIP revision. See 75 FR 9411 (March 2, 2010).

The results of ADEQ's analysis are summarized in Table 1 below, which shows that the emissions reduction benefits achieved by the Phoenix VEI program as amended are higher than those achieved under the performance standard. The amended Phoenix VEI program thus continues to achieve greater emissions reductions than the federal model program because the VEI program includes elements that go beyond federal I/M requirements. These include a requirement for a one-time only waiver, an implementation area beyond the nonattainment area boundaries, and denial of waivers for grossly-emitting vehicles.

Table 1.--Results of ADEQ's Alternate Low Enhanced Performance Standard Modeling^a

	2002			2008		
	VOC	NOx	CO	VOC	NOx	CO
I/M Benefits in Area A (grams/mile)	0.201	0.109	2.938	0.088	0.101	1.579
I/M Performance Standard benefits (grams/mile)	0.152	0.026	2.262	0.056	0.006	1.160

^a The emission rates in this table represent the difference between the fleet-wide emission rate under the applicable program (i.e., amended Arizona VEI program or EPA's I/M model program) and the corresponding emission rate under the no-I/M scenario. See Table 8 on page 16 of the 2009 VEI SIP Revision.

Based on our review of the 2009 VEI SIP Revision, we find ADEQ's methods used to update the performance standard evaluation and use of the alternate low enhanced I/M performance

standard to be acceptable, and we find that the VEI program, as amended to exempt motorcycles in the Phoenix area from the emissions testing requirements, exceeds the alternate low enhanced I/M performance standard in the Phoenix area as required under 40 CFR 51.351 and 51.905(a)(1).

C. Demonstrating Noninterference with Attainment and Maintenance Under CAA Section 110(1)

Revisions to SIP-approved control measures must meet the requirements of Clean Air Act section 110(1) to be approved by EPA. Section 110(1) states in relevant part: "The Administrator shall not approve a revision of a plan if the revision would interfere with any applicable requirement concerning attainment and reasonable further progress (as defined in section 171), or any other applicable requirement of this Act."

We interpret section 110(1) to apply to all requirements of the CAA and to all areas of the country, whether attainment, nonattainment, unclassifiable, or maintenance for one or more of the six criteria pollutants. We also interpret section 110(1) to require a demonstration addressing all pollutants whose emissions and/or ambient concentrations may change as a result of the SIP revision. Thus, for example, modification of a SIP-approved measure may impact NO_x emissions, which may impact ozone and PM_{2.5}. The scope and rigor of an adequate section 110(1) demonstration of noninterference depends on the air quality

status of the area, the potential impact of the revision on air quality, the pollutant(s) affected, and the nature of the applicable CAA requirements.

The 2009 VEI SIP Revision submittal that seeks exemption of motorcycles from the Phoenix enhanced I/M program includes an evaluation of the effects of the revision to the VEI programs on ozone, carbon monoxide, PM_{2.5}, and PM₁₀ within the Phoenix metropolitan area. The details of ADEQ's evaluation of the emissions effects and related ambient air quality impacts of the new exemptions are contained in "Technical Support Document for Evaluating Emissions Impacts of Exempting Motorcycles from Vehicle Emissions Inspections and Comparing Inspection and Maintenance (I/M) Emission Reduction Benefits in Area A with the EPA Enhanced I/M Performance Standard (August 19, 2009)" ("2009 Report"), which was included as Appendix B to the 2009 VEI SIP Revision.

The 2009 report indicates that ADEQ used the EPA's motor vehicle emissions model program, MOBILE6.2, to estimate the emissions effects of the new exemptions. The methods used to gather data included acquisition of data from the State vehicle emissions inspections programs, other state agencies, air quality planning agencies and relevant air quality plans. We find that ADEQ used reasonable methods and appropriate models in estimating the emissions effects of the new exemptions. Table 2

below summarizes ADEQ's estimates by pollutant in units of metric tons per day (mtpd). Table 2 also shows the emissions impact as a percentage of the overall pollutant-specific inventory in the applicable area.

Table 2.--VOC and CO Emissions Increases Associated with the 2009 VEI SIP Revision^a

Pollutant	Area-wide total emissions (mtpd)	I/M benefit from motorcycle test and repair (mtpd)	Percent of areawide total emissions inventory
Volatile Organic Compounds	606.7	0.056	0.009
Carbon Monoxide	912.3	0.246	0.027
^a I/M Benefit = the reduction in on-road emissions due to the motorcycle exemption in Area A. See pages 7 and 12 of 2009 VEI SIP Revision.			

1. Ozone

Ozone is formed by the interaction of directly-emitted precursor emissions, volatile organic compounds (VOC) and oxides of nitrogen (NO_x), as influenced by the meteorological and topographical features of an area.

As noted above, in 2004, EPA designated the Phoenix area as a nonattainment area for the 1997 8-hour ozone standard, 69 FR 23858 (April 30, 2004), and in 2012, designated the Phoenix area as a nonattainment area for the 2008 8-hour ozone standard, 77 FR 30088 (May 21, 2012).

As indicated in Table 2 above, based on ADEQ's estimates, the revision to the 2009 VEI program in Phoenix would increase VOC emissions by approximately 0.056 metric tons per day, which represents approximately 0.009% of the overall VOC emissions inventory in this area under existing conditions. ADEQ did not estimate NO_x emissions, but we agree with ADEQ's assertion that repairs to vehicles to reduce VOC and CO emissions often result in an incremental increase in NO_x emissions and, thus, discontinuance of such repairs (e.g., through an exemption) could result in an incremental decrease in such emissions.

While minor, the incremental increase in VOC emissions due to the motorcycle exemption would occur in an area that is violating the 2008 ozone standard based on the design value for 2008-2010.

ADEQ's 2011 VEI SIP Addendum includes a measure that is intended to substitute for the foregone VOC emissions reductions from the motorcycle exemption and to thereby provide a basis to find that the 2009 VEI SIP Revision would not interfere with attainment of the 2008 ozone standard. The measure identified as the substitute is a 2008 EPA rule for aerosol coatings (spray paints and coatings) ("coatings rule"). See 73 FR 15604 (March 24, 2008) 74 FR 29595 (June 23, 2009). The compliance date for the 2008 EPA coatings rule was July 1, 2009. The designation of the Phoenix-Mesa area as a "marginal" nonattainment for the 2008

ozone NAAQS reflects ambient data from calendar years 2008-2010, and thus reflects in part the VOC emission reduction benefit from the 2008 EPA coatings rule and still the Phoenix area appears to be violating the 2008 ozone standard. Thus, with the information available at the present time, we cannot conclude that the coatings rule would offset the VOC emissions increases estimated to occur due to the motorcycle exemption. However, we find that the expansion of the boundaries of Area A, as submitted in regulatory form in ADEQ's submittal dated May 25, 2012, would more than offset the incremental increase in VOC emissions.

As noted above, the estimated benefit of "Expansion of Area A Boundaries" would be approximately 1.3 metric tons per day of VOC due to the extension of the applicability of the VEI program to areas not otherwise subject to the program.¹¹ In contrast, the incremental increase in VOC emissions due to the motorcycle exemption is estimated by ADEQ to be less than 0.1 metric tons per day (or more specifically, 0.056 mtpd). Thus, we find that exempting motorcycles from emissions testing under the VEI program, together with expanding the boundaries of Area A, would not interfere with attainment or maintenance of the ozone NAAQS in the Phoenix area.

¹¹ See page 5-16 of the approved Phoenix-Mesa Eight-Hour Ozone Attainment Plan, and footnote #5 included in this action.

2. Carbon Monoxide

Carbon monoxide (CO) is a product of incomplete combustion of fuels. In most urban areas, most of the CO comes from motor vehicle exhaust.

In 2005, EPA redesignated the Phoenix area for CO, and approved a maintenance plan that provides for maintenance of the CO NAAQS in that area through 2015. See 70 FR 11553 (March 9, 2005) and 70 FR 52926 (September 6, 2005).

As indicated in Table 2 above, based on ADEQ's estimates, the motorcycle exemption would increase CO emissions by approximately 0.246 metric tons per day, which represents approximately 0.027% of the overall CO emissions inventory in this area under existing conditions. This incremental increase would be more than offset by the expansion of Area A boundaries.¹² Moreover, the net reduction in CO emissions due to these SIP revisions would occur in an area where overall CO emissions are expected to remain relatively constant over the next 10 years and where ambient CO levels are well below the NAAQS.

¹² On page ES-8 of MAG's *Carbon Monoxide Redesignation Request and Maintenance Plan for the Maricopa County Nonattainment Area (May 2003)*, MAG estimates that Area A Expansion would reduce area-wide CO emissions by 0.1%.

Specifically, overall CO emissions are expected to decrease by only 1% between 2006 and 2015,¹³ and the highest second-highest value (i.e., the basis for the NAAQS) collected among the 14 stations comprising the CO monitoring network in the Phoenix area is 4.6 ppm, eight-hour average, or less than 55% of the 8-hour CO NAAQS (based on 2006-2007 data).¹⁴

Therefore, based on the net reduction in CO emissions due to the VEI SIP Revision and expansion of Area A boundaries, the relatively constant level of overall CO emissions, and monitoring data that shows that ambient CO levels remain well below the CO NAAQS, we find that exempting motorcycles from emissions testing under the VEI program, together with expanding the boundaries of Area A, would not interfere with continued attainment of the CO NAAQS in the Phoenix area.

3. Particulate Matter

EPA has promulgated different NAAQS for particles with a nominal aerodynamic diameter of 10 microns or less (PM_{10}) and for particles with a nominal aerodynamic diameter of 2.5 micrometers (microns) or less ($PM_{2.5}$). Ambient PM_{10} and $PM_{2.5}$ levels consist of directly-emitted particles as well as secondary particles formed

¹³ See MAG's *Carbon Monoxide Redesignation Request and Maintenance Plan for the Maricopa County Nonattainment Area* (May 2003), page 3-10.

¹⁴ See page 13 of the 2009 VEI SIP Revision.

through atmospheric reactions involving such precursors as NO_x and sulfur dioxide (SO₂).

In 1990, the Phoenix area was designated as a "moderate" nonattainment for the PM₁₀ NAAQS by operation of law under the CAA Amendments of 1990. EPA reclassified the area as "serious" in 1996. See 61 FR 21372 (May 10, 1996). In 2002, EPA approved the "serious area" PM₁₀ plan, which was intended to provide for attainment of the PM₁₀ NAAQS in the Phoenix area by 2006. See 67 FR 48718 (July 25, 2002); certain plan elements re-approved at 71 FR 43979 (August 3, 2006). In 2007, EPA finalized its finding that the Phoenix area had failed to attain the PM₁₀ NAAQS by the applicable attainment date. See 72 FR 31183 (June 6, 2007). Finally, on February 14, 2011, EPA finalized its finding that the Phoenix area had failed to submit an attainment demonstration SIP for its PM₁₀ nonattainment area. See 76 FR 8300 (February 14, 2011). PM₁₀ emissions in the Phoenix area are largely attributable to coarse particles, composed primarily of geologic material.¹⁵

In 2005, EPA designated Maricopa County as "unclassifiable/attainment" for the 1997 PM_{2.5} NAAQS. See 70 FR 944, at 954 (January 5, 2005). More recently, EPA designated Maricopa County as "unclassifiable/attainment" for the 2006 PM_{2.5}

¹⁵ "PM-10 Source Apportionment and Deposition Study Prepared for Maricopa Association of Governments by Sierra Research, Inc.", 2008, p. 2.

NAAQS. See 76 FR 6056 (February 3, 2011). Local monitoring by co-located PM₁₀ and PM_{2.5} monitors confirms that PM_{2.5} on high PM₁₀ days is a small fraction of the PM₁₀ concentrations.

PM₁₀ emissions are emitted as a product of incomplete combustion along with such other pollutants as CO and VOC, and because the exemption of motorcycles from emissions testing requirements of the VEI program in the Phoenix area would incrementally increase emissions of the latter pollutants, it would also likely result in the incremental increase of the former as well.

Neither the MOBILE6.2 nor the MOVES2010 emissions models provide any PM₁₀ emission reduction credit for the I/M program. In light of its failure to attain the PM₁₀ NAAQS, however, EPA requested ADEQ to attempt to quantify the PM₁₀ emissions impact of this new exemption. ADEQ used the MOBILE6.2 model to estimate the I/M impact on PM₁₀ emissions from motorcycles based on the gaseous hydrocarbon emissions. ADEQ's estimated PM₁₀ emissions in Area A due to the exemption of motorcycles from the VEI program is equivalent to approximately 0.000361% of the total PM₁₀ emissions in Area A.¹⁶ However, similar to our evaluation for ozone, we find that the expansion of the boundaries of Area A would more than offset the minimal estimated increase in PM₁₀

¹⁶ See pages 11-13 of the 2011 VEI SIP Addendum.

emissions due to the motorcycle exemption. As a result, we conclude that the motorcycle exemption, combined with the expansion of the boundaries in Area A, would be consistent with attainment of the PM_{10} standard in the Phoenix area.

With respect to the $PM_{2.5}$ standard, all of the PM_{10} from exhaust can be assumed to be $PM_{2.5}$. We believe that the motorcycle exemption, considered together with the expansion of Area A boundaries, would not interfere with attainment or maintenance of the $PM_{2.5}$ standard because there would be a net decrease in emissions and because the area is currently attaining the standard.

4. Air Toxics

Since the CAA does not have ambient air quality standards for air toxics, the EPA's interpretation of section 110(1) is that an area's compliance with any applicable Maximum Achievable Control Technology (MACT) standards, as well as any Federal Motor Vehicle Control Programs (FMVCP) under sections 112 or 202(1) of the CAA constitutes an acceptable demonstration of noninterference for air toxics. Motor vehicles are not subject to MACT standards, and the VEI SIP Revision, together with the expansion of Area A boundaries, will not interfere with any Federal Motor Vehicle Control Programs that apply in the area. For these reasons, the State thus concludes, and EPA concurs, that the VEI SIP Revision and expansion of Area A boundaries

would not interfere with any applicable CAA requirements relative to air toxics.

5. Conclusion

Based on the evaluation presented above, we find that the exemption of motorcycles in the Phoenix area from the VEI program, coupled with the expansion of the boundaries of Area A would not interfere with reasonable further progress or attainment of any of the NAAQS, and thus, we propose to approve the 2009 VEI SIP Revision, 2011 VEI SIP Addendum, and the expansion of the boundaries of Area A [i.e., amended ARS section 49-541(1)] as consistent with the requirements for SIP revisions under CAA section 110(1).

D. Contingency Provisions of CAA Section 175A(d)

In 2005, EPA redesignated the Phoenix area from nonattainment to attainment for the CO NAAQS and approved a maintenance plan. See 70 FR 11553 (March 9, 2005) and 70 FR 52926 (September 6, 2005). The CO maintenance plan includes contingency elements or plans that we approved as meeting the requirements of CAA section 175A(d).

The contingency plan establishes an action (or trigger) level protective of the NAAQS and identifies several measures, including expansion of "Area A" (the area in which certain control measures apply), for early implementation as well as consideration of additional measures on a set schedule following

the triggering event. At the time of redesignation of the Phoenix area to attainment for the CO NAAQS, the VEI programs were adopted and approved into the Arizona SIP and were assumed to continue in effect throughout the maintenance periods. Moreover, the VEI programs at the time of redesignation of these areas did not exempt motorcycles from the emissions testing requirements.

Generally, contingency plans should clearly identify the measures to be adopted, a schedule and procedure for adoption and implementation, and a specific time limit for action by the State and should also identify specific indicators, or triggers, which will be used to determine when the contingency measures need to be implemented. See EPA Memorandum from John Calcagni, Office of Air Quality Planning and Standards, entitled "Procedures for Processing Requests to Redesignate Areas to Attainment," dated September 4, 1992. At a minimum, CAA section 175A(d) requires that the State adopt as contingency measures all control measures that had been approved in the SIP for the area prior to redesignation but that the State subsequently repeals or relaxes. In this instance, because the EPA-approved VEI emissions testing requirements applied to motorcycles at the time of redesignation for the Phoenix area, reinstatement of emissions testing for this newly-exempt vehicle category must be

adopted as contingency measures for the Phoenix CO maintenance areas to comply with CAA section 175A(d).

ADEQ's 2009 VEI SIP Revision includes a new contingency measure establishing a binding commitment on ADEQ to request Legislative action to reinstate emissions testing for motorcycles in the Phoenix area should the applicable area experience a violation of the CO standards.¹⁷ Specifically, ADEQ's contingency measure involves notification to the Legislature by the October following a violation of the CO standard in the Phoenix area. After notifying the Legislature, ADEQ will request that the Arizona Legislature enact new legislation to reinstate the motorcycle exemption during the General Legislative Session that begins in January. ADEQ's request to the Legislature will call for testing to be renewed for the newly exempt vehicle category in the Phoenix testing area beginning the January following the General Legislative Session.

We view ADEQ's contingency measure in the context of the existing EPA-approved CO contingency plans for the Phoenix area, and as such, we find that the plans, as amended to include these new contingency measures, continue to meet the requirements of

¹⁷ See page 19 of the 2009 VEI SIP Revision.

CAA section 175A(d), and that the new contingency measure itself is consistent with all applicable requirements.

IV. EPA's Proposed Action and Request for Public Comment

Under section 110(k) of the CAA, EPA is proposing to approve the revisions to the Arizona SIP submitted by ADEQ on November 6, 2009 and January 11, 2011 concerning the exemption of motorcycles from the Arizona VEI program in the Phoenix area, because we find that the revisions meet all applicable requirements, and together with the expansion of the geographic area to which the VEI and other air pollution control measures apply, would not interfere with reasonable further progress or attainment of any of the national ambient air quality standards. EPA is also proposing to approve the revised statutory provision [amended Arizona Revised Statutes (ARS) section 49-541(1)], submitted by ADEQ on May 25, 2012,¹⁸ that expands the boundaries of Area A, i.e., the area in which the various air pollution control measures (including the VEI, and cleaner burning gasoline and stage II vapor recovery programs) in the Phoenix area apply.

¹⁸ Final approval of the amendment to ARS 49-541(1) that expands the boundaries of "Area A" to those promulgated by the Arizona Legislature in 2001 would supersede the previous versions of ARS 49-541(1) approved into the Arizona SIP and would expand the applicability under the Arizona SIP of the VEI program, the CBG program, the Stage II vapor recovery program and any other Arizona SIP control measure that relies on the definition of "Area A" in ARS 49-541(1).

We will accept comments from the public on this proposal for the next 30 days.

V. Statutory and Executive Order Reviews

Under the Clean Air Act, the Administrator is required to approve a SIP submission that complies with the provisions of the Act and applicable Federal regulations. 42 U.S.C. 7410(k); 40 CFR 52.02(a). Thus, in reviewing SIP submissions, EPA's role is to approve state choices, provided that they meet the criteria of the Clean Air Act. Accordingly, this action merely proposes to approve state law as meeting Federal requirements and does not impose additional requirements beyond those imposed by state law. For that reason, this proposed action:

- is not a "significant regulatory action" subject to review by the Office of Management and Budget under Executive Order 12866 (58 FR 51735, October 4, 1993);
- does not impose an information collection burden under the provisions of the Paperwork Reduction Act (44 U.S.C. 3501 et seq.);
- is certified as not having a significant economic impact on a substantial number of small entities under the Regulatory Flexibility Act (5 U.S.C. 601 et seq.);
- 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);

- does not have Federalism implications as specified in Executive Order 13132 (64 FR 43255, August 10, 1999);
- is not an economically significant regulatory action based on health or safety risks subject to Executive Order 13045 (62 FR 19885, April 23, 1997);
- is not a significant regulatory action subject to Executive Order 13211 (66 FR 28355, May 22, 2001);
- is not subject to requirements of Section 12(d) of the National Technology Transfer and Advancement Act of 1995 (15 U.S.C. 272 note) because application of those requirements would be inconsistent with the Clean Air Act; and
- does not provide EPA with the discretionary authority to address, as appropriate, disproportionate human health or environmental effects, using practicable and legally permissible methods, under Executive Order 12898 (59 FR 7629, February 16, 1994).

In addition, this proposed rule does not have tribal implications as specified by Executive Order 13175 (65 FR 67249, November 9, 2000), because the SIP is not approved to apply in Indian country located in the state, and EPA notes that it will not impose substantial direct costs on tribal governments or preempt tribal law.

List of Subjects in 40 CFR Part 52

Environmental protection, Air pollution control, Carbon monoxide, Incorporation by reference, Intergovernmental relations, Oxides of nitrogen, Ozone, Reporting and recordkeeping requirements, Volatile organic compounds.

Dated: October 22, 2012.

Jared Blumenfeld,
Regional Administrator,
Region IX.

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