



PROPOSED

***2013 Update to the
Arizona State Implementation Plan
for the
Cleaner Burning Gasoline Program***

**Air Quality Division
May 2013**

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**2013 UPDATE TO THE
ARIZONA STATE IMPLEMENTATION PLAN
FOR THE CLEANER BURNING GASOLINE PROGRAM**

TABLE OF CONTENTS

1.0.	REGULATORY HISTORY OF ARIZONA FUEL REGULATIONS	1
1.1.	CLEANER BURNING GASOLINE	1
1.2.	OTHER GASOLINE REQUIREMENTS IN ARIZONA	3
2.0.	SIP INCORPORATED PROGRAM ELEMENTS & UPDATED REGULATIONS	5
2.1.	FEDERALLY ENFORCEABLE SIP PROVISIONS	5
3.0.	SIP ELEMENTS FOR INCORPORATION & REGULATORY CROSSWALK	7
3.1.	UPDATES TO ADWM STATUTES & RULES	7
3.2.	CHANGES IN ARIZONA STATUTE & REGULATORY CROSSWALK	8
	<i>ARS § 41-2124: Area A; Fuel Reformulation; Rules</i>	8
	<i>ARS § 41-2115: Civil Penalties</i>	9
3.3.	CHANGES IN ARIZONA RULE.....	9
	<i>R20-2-701, Definitions</i>	10
	<i>R20-2-702, Materials Incorporated by Reference</i>	10
	<i>R20-2-708(B), Gasoline Ethanol Blends</i>	10
	<i>R20-2-716, Sampling and Access to Records</i>	10
	<i>R20-2-749, Definitions Applicable to Arizona CBG and AZRBOB</i>	10
	<i>R20-2-750, Registration Relating to AZ CBG or AZRBOB</i>	10
	<i>R20-2-751, Arizona CBG Requirements</i>	11
	<i>R20-2-752, General Requirements for Registered Suppliers</i>	12
	<i>R20-2-753, General Requirements for Pipelines and 3rd-party Terminals</i>	12
	<i>R20-2-754, Downstream Blending Exceptions for Transmix</i>	12
	<i>R20-2-755, Additional Requirements for AZRBOB and Downstream Oxygenate Blending</i>	12
	<i>R20-2-756, Downstream Blending of AZ CBG with Nonoxygenate Blendstocks</i>	12
	<i>R20-2-757, Product Transfer Documentation; Records Retention</i>	12
	<i>R20-2-758, Adoption of Fuel Certification Models</i>	12
	<i>R20-2-759, Testing Methodologies</i>	13
	<i>R20-2-760, Compliance Surveys</i>	13
	<i>Title 20, Chapter 2, Article 7, Table 1, Type 1 Gasoline Standards</i>	13
	<i>Title 20, Chapter 2, Article 7, Table 2, Type 2 Gasoline Standards</i>	13
4.0.	CONCLUSION	15
4.1.	ELEMENTS OF THE UPDATED ARIZONA CBG PROGRAM	15

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EXECUTIVE SUMMARY

The Arizona Cleaner Burning Gasoline (CBG) program is a control measure introduced to reduce pollution from mobile sources in the Maricopa County metropolitan area and is relied on to aid the area in the reduction of ozone, carbon monoxide (CO), and particulate matter (PM) formation. This State Implementation Plan (SIP) revision provides an update of the Arizona CBG Program for federal approval and requests incorporation of Arizona's revised CBG related statutes and rules into the Arizona SIP.

The most recent Federal approval of Arizona CBG State Implementation Plan (SIP) elements occurred in 2004 and, since that action, Arizona statute and rules incorporated into the SIP were revised. Regulatory changes occurred through various legislative efforts and multiple rule revisions from the last federal approval. The legislative actions and rulemakings covered in this SIP update are:

- Laws 2003, Ch. 79, § 2 (SB 1307)
- Laws 2004, Ch. 293, § 5 (HB2207)
- Laws 2005, Ch. 104, § 7, subsections B through D (SB1275)
- Laws 2006, Ch. 303, § 1 (HB 2562)
- Laws 2007, Ch. 145, §§ 3 and 4, subsections B through D (SB 1455)
- Laws 2008, Ch. 291, § 5 (HB 2462)

- Final Rulemaking at 10 A.A.R. 1690, effective June 5, 2004
- Final Rulemaking at 12 A.A.R. 3722, effective September 12, 2006
- Final Rulemaking at 17 A.A.R. 190, effective March 12, 2011

Chapter 1.0 of the SIP Revision includes general discussion of the Arizona CBG program, as well as a detailed regulatory history of the program and other gasoline regulatory requirements in Arizona. Chapter 2.0 outlines the current Arizona CBG program elements, as approved by EPA in 2004. Chapter 3.0 contains a detailed explanation of the updates requested for SIP-incorporated statutes and rules from the previously approved iterations. And, Chapter 4.0 concludes the submission with an outline of the Arizona CBG program elements that are adopted and submitted for federal approval with this SIP revision.

ADEQ requests the current materials incorporated by reference in the Code of Federal Regulations be superseded and replaced with the statute and rule iterations included in this submission, as identified in Table 4.1: Arizona Cleaner Burning Gasoline Program, as Updated.

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1.0. REGULATORY HISTORY OF ARIZONA FUEL REGULATIONS

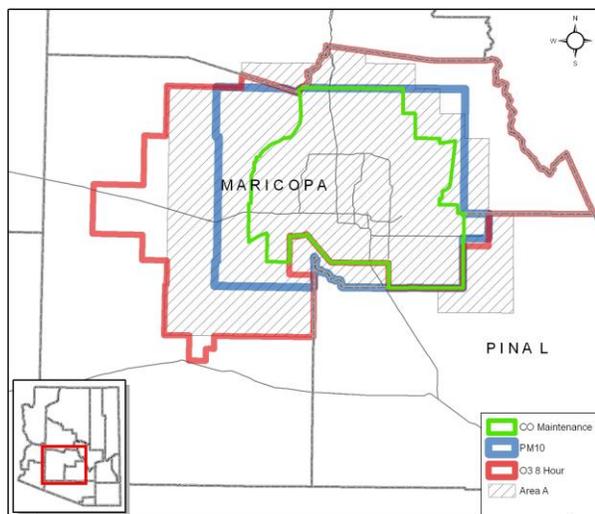
1.1. Cleaner Burning Gasoline

The Arizona Cleaner Burning Gasoline (CBG) program includes gasoline related standards and control measures implemented by the State to reduce pollution from mobile sources in areas across the state (see Chapters 3.0 through 5.0 for specific element identification). Various elements of the CBG program were introduced and updated over the years to reduce ozone, particulate matter (PM₁₀), and carbon monoxide (CO) ambient pollutant concentrations in the greater Phoenix metropolitan area (i.e., Maricopa County area). Tailpipe emissions associated with vehicular travel is commonly identified as a factor contributing to nonattainment designations for all three pollutants, and the introduction of gasoline controls is one of many policies federal, state, and local governments adopted in ongoing efforts to reduce pollution and improve public health.

The Maricopa County ozone nonattainment and CO maintenance areas include large portions of Maricopa County. The PM₁₀ area also encompasses a large portion of Maricopa County as well as additional area in Pinal County. Collectively, under Arizona Revised Statutes (ARS) §49-541(1)(a),(b), and (c), the ozone, CO, and PM₁₀ areas are covered in part by the planning area, “Area A.”¹ A map depicting each of the criteria pollutant boundaries and Area A is provided in Figure 1.1. The Arizona CBG program is a control measure for ozone, CO, and PM₁₀ and applies to gasoline sold within the boundaries of Maricopa County and any portion of a county within Area A, collectively referred to in Arizona rule as the “CBG-covered area.”

In general, the CBG program can be delineated into two central elements: 1) a summer cleaner burning fuel blend with a low Reid Vapor Pressure² (RVP) and, 2) wintertime clean burning fuel blend with a minimum oxygenate requirement. In addition to the minimum oxygenate requirements, the winter CBG includes requirements for the gasoline to meet the specifications for California Air Resources Board (CARB) Phase 2 reformulated gasoline³. The summer CBG allows refiners to meet either, the winter CARB Phase 2 requirements, or alternatively meet specific performance standards for reductions in volatile organic compound (VOC) and oxides of nitrogen (NOx) emissions - patterned after the federal Phase 2 reformulated gasoline program. Both the CARB Phase 2 and Federal Phase 2 reformulated gasoline programs provide requirements for gasoline formulations that provide air quality benefits. The summer fuel blend requirements aid areas in reducing precursor emissions that contribute to ozone and PM₁₀ concentrations, while the wintertime fuel blend aids in the reduction of CO and PM₁₀ emissions.

Figure 1.1: Maricopa Area Boundaries



¹ The current boundaries of Area A were established by the Arizona Legislature in 2001 (Laws 2001, Ch. 371, §8).

² More information on gasoline volatility and Reid Vapor Pressure can be found at <http://www.epa.gov/otaq/fuels/gasolinefuels/volatility/index.htm>

³ CARB Phase 2 gasoline includes a specific set of standards for sulfur, aromatics, olefins, and distillation, which combined produce emission reductions of CO, VOCs, NOx, and PM10.

Arizona CBG program controls were first introduced with a January 17, 1997 request from Arizona Governor Symington for the Maricopa County Ozone Nonattainment Area to opt-in to the federal reformulated gasoline (RFG) program under section §211(K)(6) of the Clean Air Act (CAA) and to establish a maximum summertime Reid Vapor Pressure (RVP) requirement, of 7.0 pounds per square inch (psi) for gasoline sold in the area.⁴ The RVP is a property of a liquid fuel that defines its evaporation characteristics, EPA approved into the Arizona State Implementation Plan (SIP) the request to opt-in to the federal RFG program as well as the maximum 7.0 RVP requirement for the Maricopa County Ozone nonattainment area on June 3rd and June 11th, 1997 respectively (62 FR 30260 and 62 FR 31734).

Subsequent to the Arizona opt-in to the federal RFG program, under emergency legislative authority, the Arizona Department of Weights and Measures (ADWM), in coordination with the Arizona Department of Environmental Quality (ADEQ), developed a fuels program specifically tailored to Arizona. This first program development effort, the Arizona Interim CBG Rule, was adopted and submitted for EPA consideration September 15, 1997. Concurrent with the submission of the Arizona Interim CBG Rule, Arizona submitted a request to EPA to opt-out of the federal RFG program, given the Arizona CBG program was an area specific program developed to serve in a manner similar to that of the federal program. The 1997 submission of the Arizona interim CBG Rule included a request that the program be adopted as a control measure for both the Maricopa County ozone and PM₁₀ nonattainment areas. On February 10, 1998, EPA approved in a final rule the establishment of the Arizona CBG program and approved the Arizona Interim CBG rule into the Arizona SIP as a control measure for the Maricopa County ozone and PM₁₀ nonattainment areas (63 FR 6653). Following the approval of the Arizona interim CBG rule, on August 11, 1998 EPA approved Arizona's request to opt-out of the federal RFG program (63 FR 43044).

After the adoption, submission, and approval of the Arizona Interim CBG rule, ADWM and ADEQ began the development of a permanent CBG program for the state which, when promulgated, would supersede the interim rule. The CBG rules resulting from this effort as well as other materials were submitted as a series of four SIP submittals from February 1999 through September 2001 that updated the program for the Maricopa County ozone and PM₁₀ areas and incorporated winter season fuel regulation applicable to the Maricopa County CO area. EPA reviewed the Arizona submittals and, on March 4, 2004, approved updates to the Arizona SIP for the Maricopa County Ozone, PM₁₀, and CO nonattainment areas; including replacement of the interim rule with the permanent rule, an update of permissible gasoline supply types for the winter season, and the removal of a minimum summertime oxygen requirement (69 FR 10161). The 2004 EPA action superseded the incorporation by reference of the Arizona Interim CBG rule and is the most recent federal action on the Arizona CBG program. 69 FR 10161 identifies the current federally enforceable SIP elements of the Arizona CBG program, which are outlined in table format at Table 2.1, Arizona Cleaner Burning Gasoline Program, Statutory Provisions and Rules.

Following the 2004 EPA action on the Arizona CBG program, the state amended the CBG rule in 2006 and submitted a SIP revision to incorporate the change into the federally enforceable program on September 28, 2007. After extensive analysis of the emissions impact of the proposed update to the SIP and in consultation with EPA, on July 3, 2008, Arizona withdrew the request to update the CBG program with the 2006 iteration of the CBG rule.

⁴ A detailed history of fuel related regulatory requirements prior to the implementation of Arizona's CBG program is available in the EPA August 2003 "Technical Support Document for Notice of Proposed Rulemaking on Arizona State Implementation Plan (SIP) Arizona Cleaner Burning Gasoline SIP Revisions," available at <http://www.epa.gov/region09/air/phoenixcbg/tsd092003.pdf>.

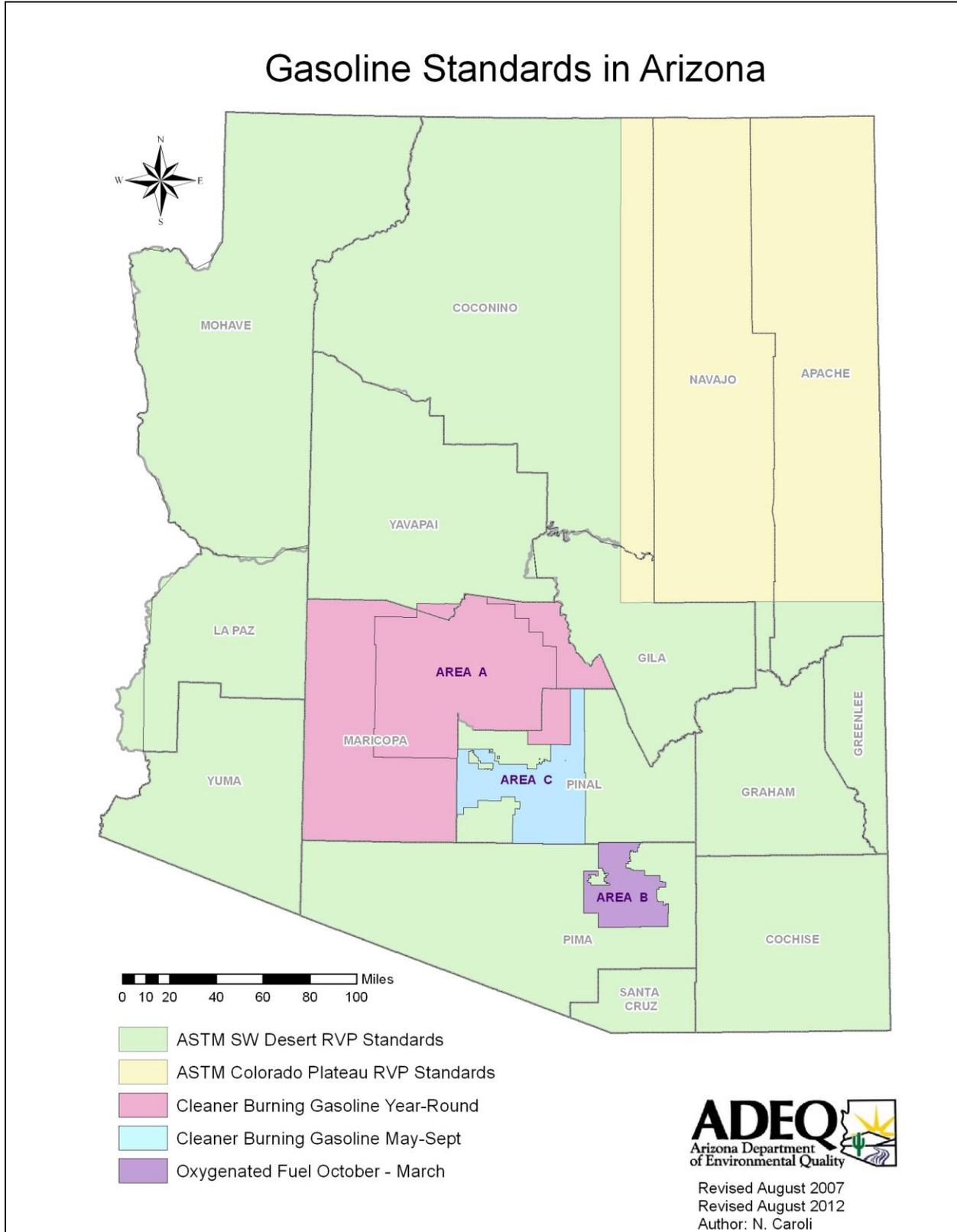
In 2011, ADWM revised the state CBG rule (Arizona Administrative Code (AAC) Title 20, Chapter 2, Article 7) in consultation with stakeholders, ADEQ and EPA. The recent changes to the rule revise certain provisions to conform to the federally enforceable SIP provisions from 2004 and update other portions of the rule to modernize the program to reflect current industry testing methods, practices and efficiencies suitable for Arizona's environment and industry. Discussion of the regulatory and potential emissions impact of each change included in this update to the Arizona SIP for the CBG program is discussed in greater detail in Chapter 3.0, SIP Elements for Incorporation & Regulatory Crosswalk.

1.2. Other Gasoline Requirements in Arizona

In addition to the CBG-Covered area, there are two additional areas within the state that incorporate gasoline controls to reduce pollution and improve public health in the area and Figure 1.2 shows the gasoline standards applicable throughout the State.

1. A.R.S. § 41-2124.01 (as revised by Laws 2007, Chapter 292) requires that "Area C," the western portion of Pinal County as defined in A.R.S. § 41-2121(3), use the same blend of CBG required in the CBG-covered area, i.e. Area A, in the summer season (May 1 to September 30). The requirement was implemented as a proactive effort to prevent ozone emissions and is not a State Implementation Plan incorporated control measure.
2. ARS 41-2025 requires all gasoline supplied or sold in Area B [i.e., Pima County areas outlined in A.R.S. § 49-541(2)] to have a minimum oxygen content of 1.8 percent by weight from September 30 through March 31 of each year. This requirement is an incorporated control measure for the Tucson CO planning area.

Figure 1.2. Geographic Map Depicting Arizona Gasoline Standards



2.0. SIP INCORPORATED PROGRAM ELEMENTS & UPDATED REGULATIONS

2.1. Federally Enforceable SIP Provisions

From the inception of the Arizona Cleaner Burning Gasoline Program, there have been several revisions to state statute and rule that were submitted and acted on by EPA. 40 CFR Part 52, Subpart D identifies the following Arizona gasoline regulations as incorporated in the Arizona Applicable SIP under items (112) and (113):

Table 2.1. Arizona Cleaner Burning Gasoline Program, Statutory Provisions and Rules			
<i>SIP Incorporated Element</i>	<i>Description</i>	<i>State Effective Date</i>	<i>Federal Effective Date</i>
<i>Statutory Provisions</i>			
ARS 49-541(1)(a), (b), and (c)	Definition: “Area A” in (a) Maricopa County, (b) Pinal County, and (c) Yavapai County	Laws 2001, Ch. 371, § 8	04/05/04 69 FR 10161
ARS 41-2124	Area A; fuel reformulation; rules	Laws 2000, Ch. 405, § 21	04/05/04 69 FR 10161
ARS 41-2123	Area A; sale of gasoline; oxygen content	Laws 1999, Ch. 295, § 11	04/05/04 69 FR 10161
ARS 41-2113(B)(4)	Violation; classification; jurisdiction	Laws 1998, Ch. 146, § 16	04/05/04 69 FR 10161
ARS 41-2115	Civil penalties	Laws 2000, Ch. 193, § 463	04/05/04 69 FR 10161
ARS 41-2066(A)	Enforcement powers of the director and inspectors	Laws 2001, Ch. 164, § 3	04/05/04 69 FR 10161
<i>Rules</i>			
R20-2-701	Definitions	March 31, 2001	04/05/04 69 FR 10161
R20-2-716	Sampling and Access to Records	March 31, 2001	04/05/04 69 FR 10161
R20-2-750	Registration Relating to AZ CBG or AZRBOB	March 31, 2001	04/05/04 69 FR 10161
R20-2-751	Arizona CBG Requirements	March 31, 2001	04/05/04 69 FR 10161
R20-2-752	General Requirements for Registered Suppliers	March 31, 2001	04/05/04 69 FR 10161
R20-2-753	General Requirements for Pipelines and 3 rd -Party Terminals	March 31, 2001	04/05/04 69 FR 10161
R20-2-754	Downstream Blending Exceptions for Transmix	March 31, 2001	04/05/04 69 FR 10161
R20-2-755	Additional Requirements for AZRBOB and Downstream Oxygenate Blending	March 31, 2001	04/05/04 69 FR 10161
R20-2-756	Downstream Blending of AZ CBG with Nonoxygenate Blendstocks	March 31, 2001	04/05/04 69 FR 10161

Table 2.1.
Arizona Cleaner Burning Gasoline Program, Statutory Provisions and Rules

<i>SIP Incorporated Element</i>	<i>Description</i>	<i>State Effective Date</i>	<i>Federal Effective Date</i>
R20-2-757	Product Transfer Documentation; Records Retention	March 31, 2001	04/05/04 69 FR 10161
R20-2-758	Adoption of Fuel Certification Models	March 31, 2001	04/05/04 69 FR 10161
R20-2-759	Testing Methodologies	March 31, 2001	04/05/04 69 FR 10161
R20-2-760	Compliance Surveys	March 31, 2001	04/05/04 69 FR 10161
R20-2-761	Liability for Noncompliant Arizona CBG or AZRBOB	March 31, 2001	04/05/04 69 FR 10161
R20-2-762	Penalties	March 31, 2001	04/05/04 69 FR 10161
Title 20, Ch. 2, Art. 7, Table 1	Type 1 Gasoline Standards	March 31, 2001	04/05/04 69 FR 10161
Title 20, Ch. 2, Art. 7, Table 2	Type 2 Gasoline Standards	March 31, 2001	04/05/04 69 FR 10161

3.0. SIP ELEMENTS FOR INCORPORATION & REGULATORY CROSSWALK

3.1. Updates to ADWM Statutes & Rules

Since the 2004 approval of CBG program elements into the Arizona SIP, there have been several revisions to the relevant Arizona statutes and rules. Table 3.1 identifies the statute and rule iterations included for EPA review and approval in this submission.

<i>Table 3.1. Updates to the Arizona Cleaner Burning Gasoline Program, Statutory Provisions and Rules⁵</i>		
<i>SIP Incorporated Element</i>	<i>Description</i>	<i>Publication/Codification Date</i>
<i>Statutory Elements</i>		
ARS 41-2124	Area A; fuel reformulation; rules	Laws 2005, Ch. 104, § 3
ARS 41-2115	Civil penalties	Laws 2008, Ch. 291, § 5
<i>Rule Elements</i>		
R20-2-701	Definitions	March 12, 2011
R20-2-702 (A)(3) and (A)(8) – (A)(11)	Materials Incorporated by Reference	March 12, 2011
R20-2-708(B)	Gasoline Ethanol Blends	March 12, 2011
R20-2-716	Sampling and Access to Records	September 12, 2006
R20-2-749	Definitions Applicable to Arizona CBG and AZRBOB	March 12, 2011
R20-2-750	Registration Relating to AZ CBG or AZRBOB	September 12, 2006
R20-2-751	Arizona CBG Requirements	March 12, 2011
R20-2-752	General Requirements for Registered Suppliers	March 12, 2011
R20-2-753	General Requirements for Pipelines and 3 rd -Party Terminals	September 12, 2006
R20-2-754	Downstream Blending Exceptions for Transmix	March 12, 2011
R20-2-755	Additional Requirements for AZRBOB and Downstream Oxygenate Blending	March 12, 2011
R20-2-756	Downstream Blending of AZ CBG with Nonoxygenate Blendstocks	March 12, 2011
R20-2-757	Product Transfer Documentation; Records Retention	March 12, 2011
R20-2-758	Adoption of Fuel Certification Models	September 12, 2006
R20-2-759	Testing Methodologies	March 12, 2011
R20-2-760	Compliance Surveys	March 12, 2011

⁵ ADWM has identified technical corrections required for R20-2-708(B), R20-2-751(A)(6)(f), R20-2-752(F)(4)(c), and R20-2-759, Table A. The technical corrections are discussed in greater detail in Section 3.3 of this document and ADEQ commits to submit the corrected rule for EPA review, following a rulemaking to address the necessary technical corrections by ADWM.

Table 3.1. Updates to the Arizona Cleaner Burning Gasoline Program, Statutory Provisions and Rules⁵		
<i>SIP Incorporated Element</i>	<i>Description</i>	<i>Publication/Codification Date</i>
Title 20, Ch. 2, Art. 7, Table 1	Type 1 Gasoline Standards	March 12, 2011
Title 20, Ch. 2, Art. 7, Table 2	Type 2 Gasoline Standards	March 31, 2001

3.2. Changes in Arizona Statute & Regulatory Crosswalk

ARS § 41-2124: Area A; Fuel Reformulation; Rules

Through a series of conditional enactment legislative changes to A.R.S. §41-2124, the statute was updated to allow for the shortening of the winter ethanol blending season and the sale of CARB reformulated gasoline (RFG) Phase 3⁶ should EPA approve a SIP revision including these elements. The implementation of CARB Phase 3 RFG was not pursued because the Energy Policy Act of 2005 (EPAct) provided restrictions on state boutique fuel programs, limiting the State's ability to adopt new fuel programs.⁷ In 2008, after indication from EPA that a shortened wintertime fuel season would not be approved, ADEQ withdrew the request for a shortened winter fuel season.

The following chaptered bills include changes to the language of A.R.S. § 41-2124 since the last incorporation of the statute into the Arizona Applicable SIP:

- Laws 2004, Ch. 293, § 5 (HB2207)⁸
- Laws 2005, Ch. 104, § 7, subsections B through D (SB1275)⁹
- Laws 2007, Ch. 145, §§ 3 and 4, subsections B through D (SB 1455)¹⁰

Under Laws 2004, Ch293, § 5 (HB2207), neither the sale of CARB Phase 3 (§ 1 of the statutory changes), or the shortening of the winter season (§ 2) were approved into the Arizona SIP, therefore, the actual applicable language in state statute remained the same.

Under Laws 2005, Ch. 104, § 7, subsections B through D (SB1275), only §3 of the act became effective. Section 3 removed the inclusion of methyl tertiary butyl ether (MTBE) in federal phase II RFG and CA Phase 2 RFG allowed for sale under ARS § 41-2124(A)(1) and (2). The remainder of the sections did not become effective given the failure to meet the conditions prescribed in Laws 2004, Ch293, § 5 (HB2207), which required EPA approval of the State Implementation Plan elements withdrawn by Arizona in 2008.

Under Laws 2007, Ch. 145, §§ 3 and 4, subsections B through D (SB 1455), the timeframe for conditional enactment of the changes included in Laws 2004, Ch. 293, § 5 (HB2207) and Laws 2005, Ch. 104, § 7,

⁶ CARB Phase 3 reformulated gasoline is a fuel blend implemented by California to allow for the blending of ethanol while retaining the emissions benefit of CARB Phase 2.

⁷ See <http://www.gpo.gov/fdsys/pkg/FR-2006-12-28/pdf/E6-22313.pdf> for information regarding the Boutique Fuels List under Section 1541(b) of the Energy Policy Act.

⁸ Refer to Attachment 1 for the strikeout/underline text of HB2207.

⁹ Refer to Attachment 2 for the strikeout/underline text of SB1275.

¹⁰ Refer to Attachment 3 for the strikeout/underline text of SB1455.

subsections B through D (SB1275) was extended to November 2009. The conditional enactment language changes were not approved by EPA into the Arizona Applicable SIP by the date and, therefore, no additional changes to ARS § 41-2124 are in effect due to the 2007 legislation.

In 2012, ADEQ submitted to the Arizona legislature a letter documenting the failure to incorporate the shortening of the winter ethanol blending season and the sale of CARB reformulated gasoline (RFG) Phase 3 into the SIP and providing clarification on the version of statute actually in effect (attachment4). Arizona Legislative Council submitted the documentation supplied by ADEQ to their publisher and the conditionally enacted versions of A.R.S. §41-2124 (i.e. versions 2, 3, and 4) have been removed from Arizona Legislative publications. A.R.S. § 41-2124, as codified in Laws 2005, Ch. 104, § 3, is the effective version of the statute requested for SIP incorporation.

ARS § 41-2115: Civil Penalties

The following chaptered bills include changes to the language of ARS § 41-2115 since the last incorporation of the statute into the Arizona Applicable SIP:

- Laws 2003, Ch. 79, § 2 (SB 1307)¹¹
- Laws 2006, Ch. 303, § 1 (HB 2562)¹²
- Laws 2008, Ch. 291, § 5 (HB 2462)¹³

This series of changes to ARS § 41-2115 improved the enforcement ability of the agency with respect to violation of CBG rules. In 2003, the statute was clarified regarding the applicability of violations to business locations and provided for doubling of the maximum civil penalties under certain circumstances. In 2006, the statute was modified to include the ability to double the maximum civil penalties imposed on a refiner, refinery, registered supplier or transmix facility for certain fuel quality and product transfer document violations. In 2008 the maximum civil penalty was increased for individual infractions from \$500 to \$1,000 and the maximum civil penalty that may be issued during a 30-day period was increased from \$5,000 to \$10,000.

3.3. Changes in Arizona Rule

This SIP revision incorporates rule changes made over the course several updates to the rule:

- Final Rulemaking at 10 A.A.R. 1690, effective June 5, 2004¹⁴
- Final Rulemaking at 12 A.A.R. 3722, effective September 12, 2006¹⁵
- Final Rulemaking at 17 A.A.R. 190, effective March 12, 2011¹⁶

The “crosswalk” explanation under each rule heading identifies significant regulatory changes in the rule from the previous federally approved iteration, as well as discussion of the potential SIP implications of the changes in rule.

¹¹ Refer to Attachment 5 for the strikeout/underline text of SB1307.

¹² Refer to Attachment 6 for the strikeout/underline text of HB2562.

¹³ Refer to Attachment 7 for the strikeout/underline text of HB 2462.

¹⁴ Refer to Attachment 8 for the strikeout/underline text of the 2004 rulemaking.

¹⁵ Refer to Attachment 9 for the strikeout/underline text of the 2006 rulemaking.

¹⁶ Refer to Attachment 10 for the strikeout/underline text of the 2011 rulemaking.

R20-2-701, Definitions

Following the March 31, 2001 SIP incorporated iteration of R20-2-701, the rule definitions were updated in 2006 and again in 2011. In 2011, certain definitions applicable to Arizona CBG and AZRBOB were moved from R20-2-701 to R20-2-749. There is no emission impact associated with the updated definitions in rule.

R20-2-702, Materials Incorporated by Reference

Materials incorporated by reference were updated in 2004, 2006, and 2011. In each of these revisions, materials incorporated by reference were updated to reflect updated ASTM test methods. In 2006, the fuel certification models adopted contained in R20-2-758 were moved to R20-2-702. Additionally, test methods for fuel ethanol used for blending with CBG were added in 2006 and 2011, respectively. See discussion under R20-2-759(C) for further information regarding test methods. These references are included in R20-2-702(A)(3) and R20-2-702(A)(8) through (A)(11).

R20-2-708(B), Gasoline Ethanol Blends

In 2011, R20-2-708(B) was amended to allow the vapor pressure specified by ASTM D4814 to be exceeded by not more than 1 psi for gasoline ethanol blends containing ethanol of at least 1.5 percent by weight and no more than 10 percent by volume during April and October within the CBG-covered area.¹⁷ This change was implemented to ease requirements for blending higher volumes of ethanol during these time periods and to reflect federal requirements under Clean Air Act (CAA) § 211(h)(4). The Maricopa County area CO maintenance plan relies on a maximum vapor pressure of 9 psi as an emission reduction measure for the September 30 through March 31 time frame. The plan also relies on the sale of CBG with oxygenates from November 1 through March 31 for additional emission controls. The specific requirements for CBG are included in discussion under R20-2-751(A)(6)(f).

R20-2-716, Sampling and Access to Records

In 2006, additional language was added to the rule to clarify and strengthen the ADWM ability to collect motor fuel samples. Recordkeeping requirements were modified to clarify the types of facilities required to maintain records and the duration that records are required to be maintained.

R20-2-749, Definitions Applicable to Arizona CBG and AZRBOB

In the 2011 rulemaking, a new section, R20-2-749, was added to separate definitions specific to Arizona CBG and AZRBOB from the generally applicable definitions outlined in R20-2-701. The definition “Oxygenated Arizona CBG” was updated to allow a maximum oxygenate content of 4.0 weight percent in the CBG-covered area from November 1 through March 31; consistent with Sections R20-2-708, R20-2-751(A)(7)(b), Tables 1 and 2, and 40 CFR Part 80.45(c)¹⁸. Other definitions moved from R20-2-701 were updated for clarity. There is no emission impact associated with the updated definitions in rule.

R20-2-750, Registration Relating to AZ CBG or AZRBOB

In 2006, general language changes were incorporated into the rule. No substantive changes to the rule were made; the changes to the rule, however, are requested for incorporation into the SIP.

¹⁷ A.R.S. §§ 41-2083(D) and 41-2122(A) limit the volatility of gasoline to 9 pounds psi from and after September 30 through March 31 of each year in a county with more than 1,200,000 persons and any portion of a county contained in Area A. ADWM is pursuing a technical correction to make the rule consistent with statutory requirements. ADEQ commits to submit the corrected rule for EPA review under separate cover.

¹⁸ 62 FR 68206, December 31, 1997.

R20-2-751, Arizona CBG Requirements

In 2006, the rule was changed to incorporate language shortening the winter season and allowing sale of CARB Phase 3 RFG. In 2011, following the failure to incorporate these changes into the Arizona SIP, the references to CARB Phase 3 and the shortened winter season were removed from the rule.

Other changes to Section R20-2-751 include:

- R20-2-751(A)(6)(f) allows a one-pound psi vapor pressure waiver in the CBG-covered area during the months of April and October only (included in the 2011 rule).¹⁹ The vapor pressure, and associated constraints outlined in R20-2-752(A)(6) were incorporated in Arizona rule to provide gasoline volatility requirements to reduce emissions during the winter and summer seasons. After corrected with the proposed ADWM rulemaking, the introduction of a one-pound psi waiver for the April time frame will provide for some flexibility during the “shoulder season,” while not compromising the regulatory constraints implemented to control for ozone formation during the June 1 through September 30 “ozone season.”
- R20-2-751(A)(7)(c) incorporated additional language to provide a cap on allowable limits of MTBE and other ethers and alcohols to the fuel in 2006, strengthening the rule by preventing wide-scale use of additives not approved for use by ADWM.
- Specifications for fuel ethanol as a blending component of AZRBOB and AZCBG were added in R20-2-751(C) in 2006. With the 2005 legislative removal of MTBE use in federal phase 2 RFG and CA phase 2 RFG, fuel ethanol became the prescribed blending component with AZRBOB and AZCBG. These specifications provide the standards that must be met for the ethanol used as a blending component.
- The language in R20-2-751(G) was modified to allow a registered supplier to certify AZRBOB or Arizona CBG using an equivalent test method that the department approves using criteria stated in R20-2-759 in 2006. This section was renumbered from R20-2-751(F) in 2011.
- New R20-2-751(F) was added in 2011 allowing production of Type 1 Arizona CBG from December 1 through March 31 as long as the Arizona CBG is not distributed to a motor fuel dispensing site within the CBG-covered area before April 1. This change allows fuel producers flexibility in production without effecting air quality by continuing to limit sale to previously approved time periods in the CBG covered area.
- R20-2-751(J) was modified in 2006 to allow the use of the California Reformulated Gasoline Blendstocks for Oxygenate Blending (CARBOB) Model as a substitute for a fuel ethanol hand blend. The CARBOB model is a set of equations which predict the properties of the finished gasoline following the addition of ethanol. The model uses the properties of the AZRBOB, the ethanol, and the ethanol content of the finished gasoline as inputs and the model calculates the properties of the finished gasoline (containing ethanol). The outputs from the CARBOB model are then used in the Predictive Model to verify compliance with the AZCBG standards.

The model simplifies and streamlines the certification of Arizona CBG because it allows a registered supplier to certify the final Arizona CBG through the use of the model in lieu of hand-blending and testing the required fuel properties. Because the use of the model does not change any fuel standards, the underlying composition of the AZRBOB, or fuel parameter values reported to the EPA, there are no demonstrable emissions impacts associated with this change in the rule. This section was renumbered from R20-2-751(I) in 2011.

¹⁹ R20-2-751(A)(6)(f) is subject to the same technical correction (removal of October one pound psi waiver) discussed in footnote 17.

R20-2-752, General Requirements for Registered Suppliers²⁰

In 2006, R20-2-752(E) clarified and strengthened the requirements for the submittal of a Quality Assurance and Quality Control (QA/QC) program for registered suppliers.

R20-2-753, General Requirements for Pipelines and 3rd-party Terminals

In 2006, R20-2-753(G) clarified and strengthened the requirements for the submittal of a QA/QC program for pipelines and registered 3rd party terminals.

R20-2-754, Downstream Blending Exceptions for Transmix

In 2011, R20-2-754 was modified to allow third party terminals to blend transmix, in addition to pipelines. There is no emission impact associated with the update to the rule.

R20-2-755, Additional Requirements for AZRBOB and Downstream Oxygenate Blending

In 2006 R20-2-755(A)(1) was revised to allow the registered supplier to certify AZRBOB using the CARBOB model (see discussion regarding use of the CARBOB Model under R20-2-751). Fuel ethanol was specified as the oxygenate allowed for use (consistent with other fuel ethanol and oxygenate changes made to the rule in 2006).

In 2006 R20-2-755 (D) was revised to allow a registered supplier to contract with a third party to perform the required quality assurance sampling and testing of AZRBOB after the addition of fuel ethanol, subject to approval by the director. In 2006, the requirements for the third party testing program were added to the rule with the development of R20-2-755(E) through (H).

R20-2-756, Downstream Blending of AZ CBG with Nonoxygenate Blendstocks

In 2011, language was added to clarify that Arizona CBG combined with nonoxygenate blendstock cannot be used within the AZ CBG covered area.

R20-2-757, Product Transfer Documentation; Records Retention

In 2006 R20-2-757(A) clarified oxygenate is fuel ethanol and removed a requirement for product transfer documents to include the federal complex model VOC and NOX reduction percentage standard. The standards are included in R20-2-751(A) and republication on transfer documentation was deemed unnecessary.

- In 2011, R20-2-757(A)(9) was added to require the final destination to be included on Product Transfer Documents to strengthen the tracking of CBG to the final destination.
- In 2006 R20-2-757(E) included a new requirement for transfer of custody of fuel ethanol intended for use as blend component in AZRBOB or Arizona CBG to provide documentation that states the ethanol complies with the standards upon transfer of custody or title.

R20-2-758, Adoption of Fuel Certification Models

In 2006, this section was repealed, however the California Predictive Model and the Federal Complex Model were added to section R20-2-702, materials incorporated by reference, and incorporated for use in the rule under R20-2-751. See Final Rulemaking at 12 A.A.R. 3722, effective September 12, 2006 (Attachment 9) for the movement of the fuel certification models to materials incorporated by reference.

²⁰ R20-2-752(F)(4)(6) is subject to the proposed ADWM technical correction rule revision. The proposed language changes the required submission from the 15th day of January, April, July and October to “on, or before,” the 15th day of those months.

R20-2-759, Testing Methodologies

- R20-2-759 (A) was modified in 2006 to allow the use of either EPA-approved or CARB-approved test methods. A new Table A was added listing all of the approved test methods. The test methods were updated as applicable. In 2011, the test methods listed in Table A were again revised to reflect updated versions of the applicable test methods. The test methods allowed under the approved SIP included both EPA-approved and CARB-approved test methods; as registered suppliers were allowed to use EPA-approved test methods to certify Type 1 CBG provided they were the only test methods used by the registered supplier to certify Arizona CBG or AZRBOB. There are no anticipated emissions impacts due to the use of either EPA-approved test methods or CARB-approved test methods since both were previously approved in the SIP. Allowing registered suppliers and laboratories to use the current fuel testing procedures ensures improved analysis, operations and quality control by the regulated parties.

It should be noted that in 2006, Table A footnote 2 was added. The footnote states that the only correlation equation to be used when determining RVP is the CARB equation ($RVP = (0.0972 \times P_{tot}) - 0.715$). As previously noted, ADEQ withdrew the 2006 submittal from EPA consideration. When the rule was updated in 2011 to remove modifications the footnote should have been updated; however, this footnote remained. In May 2012, the Department sent letters to all registered suppliers to confirm that they are required to continue to use the ASTM equation that has historically been used to certify Arizona CBG (see attachment 11). ADWM is undergoing a technical revision to the rule to correct this conflict and, in coordination with ADEQ, commits to the submission of corrected rule language following the completion of the State regulatory development process and finalization of the rule changes.

- R20-2-759(B) was modified in 2006 to clarify and update the requirements for oxygenate blenders and third-party terminals to measure fuel ethanol in accordance with the standards in Table A.
- R20-2-759(C) was updated in 2006 to allow the use of the CARBOB model for compliance and reporting purposes (see discussion regarding use of the CARBOB Model under R20-2-751).
- In 2006 R20-2-759(D) was added to allow the use of a test method that the department determines to be equivalent to test methods listed in Table A and outlines criteria to be used to evaluate the equivalency of test methods. In 2011, the department added a requirement that the concurrence of the EPA Regional Administrator be received in order to approve a proposed test method as equivalent to ensure the emissions benefit of SIP incorporated testing methods.
- In 2006 R20-2-759 (E) was added to state that the use of the CARBOB model and the use of approved equivalent test methods included in R20-2-759 (C) and (D) are not effective until the revised State Implementation Plan is approved by EPA.

R20-2-760, Compliance Surveys

Amendments were made in 2006 and 2011 to clarify and strengthen the requirements for Compliance Surveys. Compliance surveys demonstrate registered supplier adherence to ADWM laws and regulations.

Title 20, Chapter 2, Article 7, Table 1, Type 1 Gasoline Standards

In 2006, the dates referenced for sale of Type 1 AZ CBG were changed to reflect the proposed shortening of the winter season. In 2011, the rule was changed back to the previously approved winter season length.

Title 20, Chapter 2, Article 7, Table 2, Type 2 Gasoline Standards

In 2006, the dates referenced for sale of Type 2 AZ CBG were changed to reflect the proposed shortening of the winter season. In 2011, the rule was changed back to the previously approved winter season length.

The maximum oxygenate content was raised from 2.7 to 3.7 weight percent in 2006 and from 3.7 to 4.0 weight percent in 2011 to reflect the elimination of the use of MTBE and to be consistent with Sections R20-2-R20-2-708, R20-0-749, R20-2-751(A)(7)(b), Table 1, and 40 CFR Part 80.45(c).

4.0. CONCLUSION

4.1. Elements of the Updated Arizona CBG Program

Table 4.1 outlines in table format the Arizona CBG Program Applicable SIP elements following federal approval of the legislative and rule changes included in this revision. The statutes and rules are referenced by publication and state effective date. Those items that include changes from the previously approved SIP are highlighted yellow.

<i>Table 4.1 Arizona Cleaner Burning Gasoline Program, as Updated</i>		
<i>SIP Incorporated Element</i>	<i>Description</i>	<i>Publication/Codification Date</i>
<i>Statutory Elements</i>		
ARS 49-541(1)(a), (b), and (c)	Definition: “Area A” in (a) Maricopa County, (b) Pinal County, and (c) Yavapai County	Laws 2001, Ch. 371, § 8 ²¹
ARS 41-2124	Area A; fuel reformulation; rules	Laws 2005, Ch. 104, § 3
ARS 41-2123	Area A; sale of gasoline; oxygen content	Laws 1999, Ch. 295, § 11
ARS 41-2113(B)(4)	Violation; classification; jurisdiction	Laws 1998, Ch. 146, § 16
ARS 41-2115	Civil penalties	Laws 2008, Ch. 291, § 5
ARS 41-2066(A)	Enforcement powers of the director and inspectors	Laws 2001, Ch. 164, § 3
<i>Rule Elements</i>		
R20-2-701	Definitions	March 12, 2011
R20-2-702(A)(3) and R20-2-702(A)(8) – (A)(11)	Materials Incorporated by Reference	March 12, 2011
R20-2-708(B)	Gasoline Ethanol Blends	March 12, 2011
R20-2-716	Sampling and Access to Records	September 12, 2006
R20-2-749	Definitions Applicable to Arizona CBG and AZRBOB	March 12, 2011
R20-2-750	Registration Relating to AZ CBG or AZRBOB	September 12, 2006
R20-2-751	Arizona CBG Requirements	March 12, 2011
R20-2-752	General Requirements for Registered Suppliers	March 12, 2011
R20-2-753	General Requirements for Pipelines and 3 rd -Party Terminals	September 12, 2006
R20-2-754	Downstream Blending Exceptions for Transmix	March 12, 2011
R20-2-755	Additional Requirements for AZRBOB and Downstream Oxygenate Blending	March 12, 2011
R20-2-756	Downstream Blending of AZ CBG with	March 12, 2011

²¹ ARS § 49-541 was revised in 2007 under SB 1531, chaptered in Laws 2007 Ch. 171, § 3, effective 09/17/2007, the SIP incorporated sections §§ 49-541(1)(a),(b), and (c), however were not revised in the legislative action.

Table 4.1
Arizona Cleaner Burning Gasoline Program, as Updated

<i>SIP Incorporated Element</i>	<i>Description</i>	<i>Publication/Codification Date</i>
	Nonoxygenate Blendstocks	
R20-2-757	Product Transfer Documentation; Records Retention	March 12, 2011
R20-2-758	Adoption of Fuel Certification Models	September 12, 2006²²
R20-2-759	Testing Methodologies	March 12, 2011
R20-2-760	Compliance Surveys	March 12, 2011
R20-2-761	Liability for Noncompliant Arizona CBG or AZRBOB	March 31, 2001
R20-2-762	Penalties	March 31, 2001
Title 20, Ch. 2, Art. 7, Table 1	Type 1 Gasoline Standards	March 12, 2011
Title 20, Ch. 2, Art. 7, Table 2	Type 2 Gasoline Standards	March 31, 2001

²² R20-2-758, Adoption of Fuel Certification Models was repealed; however the California Predictive Model and the Federal Complex Model were added to section R20-2-702, materials incorporated by reference. See Final Rulemaking at 12 A.A.R. 3722, effective September 12, 2006 (Attachment 9).