



**AIR QUALITY CONTROL ADVISORY COUNCIL
AGENDA
June 19, 2017**

Maryland Department of the Environment
Aqua Conference Room (1st Floor MDE Lobby)
1800 Washington Boulevard
Baltimore MD 21230

<https://global.gotomeeting.com/join/804308445>

United States: +1 (224) 501-3312

Access Code: 804-308-445

8:15 a.m. Welcome and Introductions John Quinn, Advisory Council Chair
Tad Aburn, Air Director

8:25 a.m. Approval of Meeting Minutes John Quinn

Action Items for Discussion/Approval:

8:30 a.m. COMAR 26.11.17.04 – Interprecursor Trading Karen Irons

9:15 a.m. COMAR 11.14.08 – Amendments to Vehicle
Emissions Inspections Program Marcia Ways

Briefings:

10:15 a.m. Maryland Section 126 SIP Petition Tad Aburn

11:00 a.m. Adjourn

Next Meeting Dates:

September 18, 2017; December 11, 2017

05/25/17

Facts About...

Amendments to COMAR 26.11.17.04 Nonattainment Provisions for Major New Sources and Major Modifications – Interprecursor Trading

Purpose of These Amendments

The primary purpose of these amendments is to amend COMAR 26.11.17 to allow interprecursor trading of ozone precursors, NO_x and VOC.

Submission to EPA as Revision to Maryland's SIP

These amendments will be submitted to the U.S. Environmental Protection Agency (EPA) for approval as part of Maryland's State Implementation Plan.

Background

These regulations amend the requirements pertaining to Emission Reduction Credits (ERCs) contained in COMAR 26.11.17 - Nonattainment Provisions for Major New Sources and Major Modifications. In accordance with COMAR 26.11.17, new or modified major air emission sources of ozone precursors (NO_x and VOC) must obtain ERCs to offset emission increases. The availability of ERCs is dependent on the area's ozone non-attainment classification. The Baltimore metropolitan area is classified as a moderate ozone non-attainment area under the 2008 8-hour ozone National Ambient Air Quality Standards (NAAQS). All other areas from which ERCs could possibly be obtained for sources locating in the Baltimore metropolitan area are either marginal 8-hour ozone nonattainment areas or are located in the Ozone Transport Region. As a result, any new major source of VOC or NO_x emissions in the Baltimore moderate 8-hour ozone nonattainment area can only obtain ERCs from the Baltimore metropolitan area. VOC ERCs in the Baltimore metropolitan 8-hour ozone nonattainment area are not available and are not expected to become available in the future. NO_x ERCs, however, are available in the Baltimore metropolitan area.

Sources Affected and Location

Although these regulations will be particularly beneficial to new major stationary sources and major modifications at existing major stationary sources locating in the Baltimore metropolitan 8-hour ozone nonattainment area, the proposed amendments will apply throughout the entire State of Maryland. All areas of the State of Maryland are either located in an ozone nonattainment area or in the Ozone Transport Region and are, therefore, subject to nonattainment NSR requirements.

Requirements

The proposed amendments to COMAR 26.11.17 - Nonattainment Provisions for Major New Sources and Major Modifications specifically address the nonattainment NSR requirement to offset new emissions with creditable emission reductions. The purpose of the proposed amendments is to allow interprecursor trading for the ozone precursors - NO_x and VOC. The amendments to the ERC regulations of COMAR 26.11.17.04 are being proposed in accordance with EPA guidance contained in EPA's proposed 2008 and 2015 Ozone Implementation Rules. The Code of Federal Regulations 40 CFR 51.165(a)(11) also allows for interprecursor trading. The EPA encourages states to allow interpollutant trading by establishing offset substitution provisions. The amendments to COMAR 26.11.17.01 add the definition for "Interprecursor trading". Specifically, the proposed regulation section .04 titled Interprecursor Trading will allow sources to substitute NO_x ERCs for VOC ERCs upon meeting the following requirements:

- Submittal of a description of the air quality model(s) used to establish the appropriate ratio for the precursor substitution;
- A proposed ratio for the precursor substitution and accompanying calculations; and
- A demonstration substantiating that the ration achieves an equivalent or greater air quality benefit for ozone in the nonattainment area.

Both monitoring data and modeling completed by the University of Maryland have concluded that the Baltimore metropolitan area is "NO_x limited" and that, therefore, NO_x reductions are more beneficial to reduce ozone concentrations than VOC reductions. Other nonattainment NSR requirements, which are not affected by the proposed amendments, include, but are not limited to:

- Installation of Lowest Achievable Emission Rate (LAER) control technology;
- Certification that all major sources owned and operated in the State by the same owner are in compliance with all applicable requirements under the Act;
- An alternative siting analysis demonstrating that the benefits of the proposed source significantly outweigh the environmental and social costs imposed as a result of its location, construction, or modification; and
- Public comment on the permit.

Expected Emissions Reductions

The ERC program ensures that emission increases from the operation of relocated sources or from the operation of new or modified sources does not impede the progress of attaining NAAQS. Emission offsets are required so that there will be reasonable further progress toward attainment of the 8-hour ozone standard. The provision to substitute NO_x reductions for VOC reductions will further benefit the region's air quality as NO_x reductions account towards a greater reduction in ozone levels.

Economic Impact on Affected Sources, the Department, other State Agencies, Local Government, other Industries or Trade Groups, the Public

Without these amendments, major new VOC sources will not be able to locate in the Baltimore nonattainment area and existing major VOC sources will not be able to expand their operations.

Is there an Equivalent Federal Standard to this Proposed Regulatory Action?

These proposed amendments are consistent with the following EPA proposed regulations:

- a. EPA November 16, 2016 Federal Register Notice- "Implementation of the 2015 National Ambient Air Quality Standards for Ozone: Nonattainment Area Classifications and State Implementation Plan Requirements; Proposed Rule."
- b. EPA June 6, 2013 Federal Register Notice- "Implementation of the 2008 National Ambient Air Quality Standards for Ozone: State Implementation Plan Requirements; Proposed Rule"
- c. 40 CFR 51.165(a)(11)

Title 26 DEPARTMENT OF THE ENVIRONMENT

Subtitle 11 AIR QUALITY

Chapter 17 Nonattainment Provisions for Major New Sources and Major Modifications

Authority: Environment Article, §§1-101, 1-404, 2-101—2-103, 2-301—2-303, 10-102 and 10-103, Annotated Code of Maryland

.01 Definitions.

A. (text unchanged)

B. Terms Defined.

(1) — (14) (text unchanged)

(14-1) “Interprecursor trading” means that the use of emission reduction credits for any ozone precursor, NO_x and VOCs, may be used to offset increased emissions of ozone precursors at a specified ratio, as determined in COMAR 26.11.17.04(F).

(15) — (27) (text unchanged)

.02 — .03 (text unchanged)

.04 Creating Emission Reduction Credits (ERCs).

A. — E. (text unchanged)

F. *Interprecursor Trading*

(1) *Provided that the other requirements for such offsets are satisfied, the offset requirements of COMAR 26.11.17.03(B)(3) for emissions of NO_x and VOC may be satisfied through interprecursor trading by offsetting reductions of emissions of either NO_x or VOC, by submitting to the Department and EPA for written approval the following information:*

(a) *A description of the air quality model(s) used to establish the appropriate ratio for the precursor substitution;*

(b) *A proposed ratio for the precursor substitution and accompanying calculations;*

(c) *A technical demonstration substantiating that the ratio achieves an equivalent or greater air quality benefit for ozone in the nonattainment area.*

(2) *Approvals of precursor substitutions shall be made by the Department and EPA on a case-by-case basis and are permit specific.*

.05 — .09 (text unchanged)

June 9, 2017

Facts About...

Amendments to the Vehicle Emissions Inspection Program (VEIP) under COMAR 11.14.08

A joint action of Maryland Department of Transportation/Motor Vehicle Administration (MDOT/MVA) and the Maryland Department of the Environment (MDE)

Purpose of this Action

The purpose of these amendments is to modernize and greatly enhance the Vehicle Emissions Inspection Program (VEIP) to improve motorist convenience while minimizing the impact on air quality. The amendments make a few key changes: delaying the initial VEIP test date and exempting pre-on board diagnostics (OBD) light duty vehicles. These common sense enhancements improve customer service, and allow Marylanders to benefit from the significant air quality progress in Maryland.

The amendments delay the initial VEIP inspection for new vehicles by one year. Currently, new vehicles undergo a VEIP test at two years of age. The amendments change the initial VEIP inspection date to at least 36 months after the vehicle's model year.

The amendments also exempt pre-1996 model year light duty vehicles (cars and light trucks) from VEIP inspections. The OBD test is conducted on 1996 and newer light duty vehicles and 2008 and newer medium-heavy duty vehicles. The idle test and gas cap leak test will continue to be conducted on older and heavier vehicles.

Submission to EPA as Revision to Maryland's SIP

These amendments will be submitted to the U.S. Environmental Protection Agency (EPA) as a revision to Maryland's State Implementation Plan.

Background

VEIP has been a cornerstone air quality program in Maryland for three decades. Several key programs and advancements in technology have resulted in much cleaner air in Maryland since VEIP began in 1984. These improvements in air quality allow Maryland to move forward with the current customer service enhancements to the VEIP.

There have been several advancements in vehicle technology since the VEIP program started. New vehicle emission standards have grown dramatically more stringent and vehicles now maintain the lower emissions levels over a longer period of time. VEIP testing methods have also grown more advanced. Computerized OBD testing is now possible on the vast majority of vehicles in Maryland. This type of testing is much more thorough, while much less complicated to perform than older test types.

Additionally, other key programs in Maryland have resulted in substantial improvements in air quality. Maryland has implemented aggressive pollution controls on Maryland power plants, cars and trucks, and many other sources. These controls have been very effective towards attaining and maintaining air quality standards. Maryland currently complies with the fine particulate standard statewide and is extremely close to meeting the new ozone standard that will begin to be implemented in the next year. There are also other emerging opportunities to further clean the air with electric vehicles, other “Zero Emission Vehicles” and other technological advances on emission controls for many other mobile sources.

Sources Affected

Approximately 1.6 million vehicles are inspected in the VEIP annually. In 2018, it is expected that the initial inspection would be delayed by one year for approximately 209,000 new vehicles, and a similar number in future years. An estimated 24,000 pre-1996 light duty vehicles would become exempt in 2018 as the first step toward implementing OBD-only testing. These vehicles are now over 20 years old and retiring from the vehicle population at a rapid rate.

Emissions

The amendment to delay the initial inspection for new vehicles by one year is expected to result in a negligible increase in emissions of nitrogen oxides (NO_x) (0.01 tons per day (tpd)) and volatile organic compounds (VOC) (0.02 tpd). Exempting pre-1996 light duty vehicles would have no effect on NO_x emissions and result in an increase of 0.93 tpd of VOC, which would quickly decrease to negligible over future years.

In comparison, the Tier 3 Low Sulfur Fuel program, in the 2015 to 2020 timeframe, will result in NO_x reductions of 14 tpd in Maryland, while 9 tpd of NO_x reductions are being achieved through the 2015 NO_x regulations for coal-fired power plants. Similarly, Maryland's new consumer products (2017) and clean paint (2016) regulations are expected to reduce VOC emissions by 8.3 tpd.

The U.S. EPA supports the proposed amendments.

Economic Impact on Affected Sources, the Department, other State Agencies, Local Government, other Industries or Trade Groups, the Public

These enhancements will provide on-going economic benefits to the public by reducing the amount of inspection fees paid. The economic benefit to the public for fiscal year 2018 (January 1, 2018 start date) is an estimated \$2,250,000. MDOT/MVA will experience a loss of revenue of about \$2,160,000 because of the fee reductions. Cost savings to the public and loss in revenues to MDOT/MVA would continue thereafter under this regulation change. The proposed action is not expected to have significant economic impact on any other entity, including MDE.

Economic Impact on Small Businesses

The proposed action would have minimal economic impact on small businesses that are vehicle repair facilities due to potentially fewer vehicles requiring repairs.

Title 11 DEPARTMENT OF TRANSPORTATION

Subtitle 14 MOTOR VEHICLE ADMINISTRATION — VEHICLE INSPECTIONS

Chapter 08 Vehicle Emissions Inspection Program

Authority: Transportation Article, §§12-104(b), 23-202(a), and 23-207; Environment Article, §§1-101, 1-404, 2-101—2-103, and 2-301—2-303; Annotated Code of Maryland

.01 Scope and Applicability.

- A. (text unchanged)
- B. Applicability.
 - (1) (text unchanged)
 - (2) Table 1. Test Procedure Applicability.

Gross Vehicle Weight (pounds)	Vehicle Model Year	Test Type
(a) 8,500 and under	[1977—1995	Idle exhaust emissions test, catalytic converter check, and gas cap leak test]
(b) 8,501—14,000	1996 and newer	On-board diagnostics test
	1977 —2007	Idle exhaust emissions test, catalytic converter check, and gas cap leak test
(c) 14,001—26,000	2008 and newer	On-board diagnostics test
	1977 and newer	Idle exhaust emissions test, catalytic converter check, and gas cap leak test

.02 (text unchanged)

.03 Definitions.

- A. (text unchanged)
- B. Terms defined.
 - (1) — (29) (text unchanged)
 - (30) "Qualified hybrid vehicle" has the meaning stated in Transportation Article, [§13-815(a)] *§23-202(b)(3)(i)*, Annotated Code of Maryland.
 - (31) — (40) (text unchanged)

.04 Exemptions.

- A. (text unchanged)
- B. Exempt vehicles include the following vehicles:
 - (1) — (15) (text unchanged)
 - (16) Of a model year earlier than 1977; [or]
 - (17) Of a gross vehicle weight of 8,500 pounds or less and model year earlier than 1996; or*
 - [(17)] (18) A military vehicle owned by the federal government and used for tactical, combat, or relief operations, or for training for these operations.*

.05 Schedule of the Program.

- A. (text unchanged)
- B. Schedule for Vehicle Inspection.
 - (1) — (3) (text unchanged)
 - (4) New Vehicles.
 - (a) Qualified Hybrid Vehicles. On or after October 1, 2012, for a qualified hybrid vehicle of the current or preceding model year that has not been previously titled or registered in any jurisdiction and for which the ownership document is a manufacturer's certificate of origin, the Administration shall assign a date of scheduled inspection which is [a] *at* least 36 months after the model year of the vehicle.
 - (b) Except as required in §B(4)(a) of this regulation, for a vehicle of the current or preceding model year that has not been previously titled or registered in any jurisdiction and for which the ownership document is a manufacturer's certificate of origin, the Administration shall assign a date of scheduled inspection which is at least [24] *36* months after the model year of the vehicle.
 - (5) — (8) (text unchanged)
- C. — F. (text unchanged)

.06 — .08 (text unchanged)

.09 Test Standards.

A. Idle Exhaust Emissions Test.

(1) (text unchanged)

(2) Hydrocarbon (HC) and carbon monoxide (CO) emissions may not exceed the following values:

[(a) Table 2. Gross vehicle weight less than or equal to 6,000 pounds.

	Vehicle Model Year	HC (parts per million)	CO (percent)
(i)	1977	500	6.00
(ii)	1978	430	5.50
(iii)	1979	400	4.00
(iv)	1980	220	1.70
(v)	1981—1990	220	1.20
(vi)	1991—1992	200	1.00
(vii)	1993—1995	175	1.00]

**[(b)] (a) Table [3] 2. Gross vehicle weight greater than [6,000] 8,500 pounds but less than or equal to 10,000 pounds.
(table unchanged)**

**[(c)] (b) Table [4] 3. Gross vehicle weight greater than 10,000 pounds:
(table unchanged)**

B. — D. (text unchanged)

.10 — .20 (text unchanged)

CHRISTINE NIZER

Administrator

Motor Vehicle Administration

BENJAMIN H. GRUMBLES

Secretary

Maryland Department of the Environment