



Maryland
Department of
the Environment

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*Basic Motor Vehicle Inspection and Maintenance
Program Certification*

*For the
State of Maryland
2008 Ozone National Ambient Air Quality Standard
Baltimore Nonattainment Area*

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Prepared for the
U.S. Environmental Protection Agency

Prepared by the
Maryland Department of the Environment

Basic Motor Vehicle Inspection and Maintenance Program Certification
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Baltimore Nonattainment Area

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Air and Radiation Administration
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Certification that Maryland's Vehicle Emissions Inspection Program Addresses the Requirements of the 2008 National Ambient Air Quality Standards for Ozone in the Baltimore Ozone Nonattainment Area and Meets the Environmental Protection Agency's Basic Performance Standard for Motor Vehicle Inspection and Maintenance Programs

Purpose

The State of Maryland attests that the existing Maryland Vehicle Emissions Inspection Program (VEIP) as implemented in the Baltimore, MD ozone nonattainment area addresses the requirements of the 2008 National Ambient Air Quality Standard (NAAQS) for ozone, and meets the U.S. Environmental Protection Agency's (EPA) basic performance standard for motor vehicle inspection and maintenance (I/M) programs.

Background

On July 20, 2012, under the implementation of the 2008 8-hour ozone NAAQS, the Baltimore ozone nonattainment area was designated as moderate. Consistent with the applicable provisions under Clean Air Act (CAA) section 182(b)(4), moderate ozone nonattainment areas with 1990 urbanized populations of 200,000 or more must implement a basic I/M program. EPA determined that Maryland did not submit a State Implementation Plan (SIP) revision for a basic I/M program at the deadline established under the ozone rule, which was July 20, 2015, and subsequently issued a "Finding of Failure to Submit State Implementation Plan Submittals for the 2008 Ozone NAAQS" on February 3, 2017. This document serves to satisfy the requirements of that finding. Maryland is certifying that its existing I/M program meets the 2008 Ozone NAAQS requirements.

Summary of Demonstration

In compliance with the CAA, EPA established a basic I/M performance standard, consisting of certain program elements that would provide a baseline of emissions reductions to be achieved in a state I/M program. States have the authority to determine the features of their I/M programs, as long as the state program provides the same or greater level of reductions as the performance standard program would provide. States must demonstrate the equivalence by modeling their program, compared to the performance standard program, using EPA's latest mobile source emissions model.

MOVES2014a was used to model both the Baltimore area VEIP and the basic performance standard in 2012, the year of designation of Maryland's nonattainment areas for the 2008 ozone NAAQS; and in 2018, the attainment year of six years following the designation. The modeling

demonstrates that the VEIP meets or exceeds the basic performance standard in both years. The modeling results are shown in Table 1.

Table 1. Modeling results.

2012 Scenario	VOC (tpd)	NOx (tpd)	VOC + NOx (tpd)
Basic Performance Standard	39.940	95.970	135.910
Baltimore Area VEIP	38.063	92.977	131.040
Difference between Basic Performance Standard and VEIP	1.877	2.993	4.870
2018 Scenario	VOC (tpd)	NOx (tpd)	VOC + NOx (tpd)
Basic Performance Standard	25.884	52.214	78.098
Baltimore Area VEIP	25.153	50.738	75.891
Difference between Basic Performance Standard and VEIP	0.731	1.476	2.207

Acronyms: VOC = volatile organic compounds (ozone precursor)

NOx = nitrogen oxides (ozone precursor)

tpd = tons per day

The electronic files containing the modeling inputs are being provided to EPA in a separate transmittal.

Attachment

Attachment A contains proof of proper public notification.

Attachment A

Public Hearing Notices/Comments/Responses