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Implementation, Maintenance, and Enforcement of the 0.075 ppm 8-hour Ozone National Ambient Air Quality Standard State Implementation Plan

SIP Number 12-12

December 21, 2012

Prepared for:

U.S. Environmental Protection Agency

Prepared by:

Maryland Department of the Environment

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1.0 Introduction

The purpose of this document is to examine Maryland's State Implementation Plan (SIP) and determine if all necessary implementation, maintenance, and enforcement measures for the 8-hour ozone National Ambient Air Quality Standard (NAAQS) are in place. §110(a)(2) of the Clean Air Act lists specific requirements of any plan. Should any portion of Maryland's state implementation plan be found lacking, a prompt submittal to correct such deficiencies must be made.

Maryland's Approach

§110(a)(2) of the Clean Air Act provides a detailed listing of various requirements for Maryland's state implementation plan regarding the national ambient air quality standards. Below, each subparagraph from (A) through (M) is broken down, with various provisions supporting the requirements.

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§110(a)(2) of the Clean Air Act (Subparagraphs A – M) EPA and Maryland Requirements

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§110(a)(2)(A)

EPA Requirement:

Include enforceable emission limitations and other control measures, means, or techniques (including economic incentives such as fees, marketable permits, and auctions of emissions rights), as well as schedules and timetables for compliance.

Maryland Requirement:

- COMAR 26.11 Air Quality.
- Mirant Consent Decree, which was entered by the United States District Court for the Eastern District of Virginia on April 20, 2007.
- In addition, in June of 2007 Maryland submitted an 8-Hour Ozone State Implementation Plans that include adopted regulations necessary to meet the NAAQS.

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§110(a)(2)(B)

EPA Requirement:

Provide for establishment and operation of devices, methods, systems, and procedures to: (i) monitor, compile, and analyze data on ambient air quality, and (ii) make such data available to EPA.

Maryland Requirement:

- Maryland's authority to monitor ambient air quality is found under §§2-103(b)(2) and 2-301 (a)(1), Environment Article, Annotated Code of Maryland; and COMAR 26.11.04.03 (specifying methods of measuring ambient air quality levels shall be those specified in 40 C.F.R. Parts 50, 53 and 58).

- No specific statutory authority is necessary to authorize data analysis or the submission of such data to EPA. Federal grant requirements establish the obligation to provide data to EPA.

- Maryland has and will continue to submit data to EPA's Air Quality System (AQS).

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§110(a)(2)(C)

EPA Requirement:

Include a program to provide for enforcement of measures in (A), and regulation of the modification and construction of any stationary source within the areas covered by the plan as necessary to assure that NAAQS are achieved, including a permit program as required in parts C and D.

Maryland Requirement:

- Enforcement and Penalties: §§2-601—614, Environment Article, Annotated Code of Maryland.

- Permit Program requirements under COMAR 26.11.02 & COMAR 26.11.03.

- PSD requirements under COMAR 26.11.06.14. Maryland's PSD regulations were last updated on July 16, 2009 and the updates are listed under COMAR 26.11.06.14.

- NSR requirements under COMAR 26.11.17. Maryland's NSR regulations have been revised; the latest revision was October 22, 2007.

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§110(a)(2)(D)

EPA Requirement:

(i) Contain adequate provisions prohibiting any source or other type of emissions activity from emitting any air pollutant in amounts which will:

(I) contribute significantly to nonattainment in, or interfere with maintenance by, any other State with respect to any such national primary or secondary ambient air quality standard.

Maryland Requirement:

Maryland fulfills this requirement with permitting and registration requirements found in COMAR 26.11.02 and Nonattainment New Source Review regulations found in COMAR 26.11.17 as stated above.

Maryland understands that EPA is developing guidance on section 110(a)(2)(D)–the transport portion of infrastructure SIPs- but this guidance has not been released yet. The CAA requires each state to address section 110 after a NAAQS has been promulgated. This SIP submittal represents a demonstration from Maryland that is consistent with what we believe the new guidance should require and what other states should submit to satisfy their responsibilities under the CAA. Maryland supports the EPA-assigned CSAPR state emissions budgets as well as additional NOx and VOC reduction measures.

Maryland's Influence on Downwind States

EPA's Cross-State Air Pollution Rule (CSAPR) requires twenty-five states to reduce NOx emissions to help downwind areas attain the 1997 8-hour Ozone NAAQS of 0.08 ppm. The rule addresses all upwind states' transport obligations under the 1997 ozone NAAQS. The rule determines the NOx levels from Maryland's power plants that address transport for the 0.08 ppm standard. Further reductions are necessary to meet the 0.075 ppm standard.

EPA CSAPR Modeling Results

When developing the CSAPR, EPA used the Comprehensive Air Quality Model with Extensions (CAMx) to quantify the contribution of emissions from "upwind" states to 8-hour ozone (0.08 ppm) nonattainment in "downwind" states. EPA's CAMx modeling included state-specific source apportionment runs to quantify each state's downwind contributions to another states monitor, in projected 2012. This 2012 "base case" run accounted for emission reductions from adopted national, regional and state control programs, but not projected reductions due to the proposed CSAPR program or the CSAPR predecessor – Clean Air Interstate Rule (CAIR).

According to CSAPR modeling, the State of Maryland is a significant contributor under the 1% of transported emissions CSAPR criteria, to many states including Pennsylvania, Connecticut, New Jersey, and New York.

CSAPR REMEDY

The CSAPR addresses a state's transport issue by establishing emission budgets for a states electric generating units over 25MW. The NOx budgets are based on a $500 per ton cost threshold. CSAPR addresses the 1997 8-hour Ozone NAAQS of 0.08 ppm. Additional emission reductions are needed for the 2008 8-hour Ozone NAAQS of 0.075 ppm, which this SIP addresses.

Maryland Remedy

Maryland meets and exceeds the good neighbor obligations through state regulations and does not rely solely on federal programs to fulfill the requirements of § 110(a)(2)(D)(i)(I). Due to the presence of nonattainment areas, Maryland has implemented numerous planning requirements designed to achieve compliance with the NAAQS. Maryland has previously complied with the requirements of § 110 in its infrastructure SIPs, which have been approved by EPA. In doing so, Maryland, as a state, has implemented one of the country's most stringent set of emission controls in the country, aggressively regulating power plants, factories, and motor vehicles. By implementing these controls state-wide, including in attainment areas, Maryland has helped reduce its ozone precursor emissions by about 40 percent since 1990, while the National average during the same time period has been about 20 percent. Some of the State-sponsored regulations that help Maryland comply with § 110(a)(2)(D)(i)(I) are discussed below.

Maryland has enacted the Healthy Air Act,[1] a pollution control program which requires substantial emissions reductions at the State's coal burning electric generating power plants (i.e. EGUs). The Healthy Air Act (HAA) requires emission reductions from power plants which, when compared to a 2002 emissions baseline, would reduce total NOx emissions by 70% in 2009 and 75% in 2012. In fact Maryland has met the goal with 70% NOx reductions in 2009, 2010 and 2011, which reduced NOx emissions in Maryland by approximately 50,000 tons per year. Maryland is on target to meet the 2012 reductions and will reduce NOx emissions by approximately 75% from 2002 levels.

The HAA helps to address Maryland's emissions contribution to many downwind areas like PA, DE, CT and NJ. The HAA caps were based on Best Available Control Technology (BACT) rates for the affected EGU units in the state. The HAA is included in the CSAPR 2012 Base Case Emission Levels. Maryland's HAA state cap budget also compares with and supports the CSAPR budgets for NOx emissions.

[1] Md. Code Ann., Envir. §§ 2-1001-1002; Maryland Code of Regulations (COMAR) 26.11.27).

Using IPM, EPA modeled the emissions that would occur within each state at ascending cost thresholds of emissions control. EPA designed a series of IPM runs that imposed increasing cost thresholds for SO_2, annual NOx, and ozone-season NOx emissions and tabulated those projected emissions for each state at each cost level. EPA refers to these tabulations as "cost curves. The cost curves report the remaining emissions at each cost threshold after the state has made emission reductions that are available up to the particular cost threshold analyzed. For NOx ozone season, EPA determined that $500/ton was the appropriate cost threshold for ozone-season NOx control at all covered states in the CSAPR rulemaking. The results for this modeling are presented in Table B-1 below.

Table B-1. 2012 & 2014 Ozone Season NO_x EGU Emissions for Each State at Various Pollution Control Cost Thresholds per Ton of Reduction (Tons).

	Base Case Emission Levels		$500/ton		$1,000/ton		$5,000/ton	
State	**2012**	**2014**	**2012**	**2014**	**2012**	**2014**	**2012**	**2014**
Alabama	34,074	31,365	34,203	31,372	33,951	31,393	30,831	29,824
Arkansas	15,037	16,644	14,995	16,565	14,944	16,432	13,969	14,970
Florida	41,646	45,993	27,069	29,607	27,029	29,122	24,277	26,866
Georgia	29,106	19,293	28,185	18,331	28,033	18,323	25,413	17,569
Illinois	21,371	22,043	21,266	21,961	21,313	21,859	20,844	21,505
Indiana	46,877	46,086	46,123	46,471	46,190	46,174	42,769	41,374
Iowa	18,307	19,440	16,526	17,082	16,308	16,996	15,227	15,776
Kansas	16,126	13,967	13,502	10,849	13,502	10,730	12,030	9,506
Kentucky	37,588	35,296	36,687	34,957	36,221	34,573	33,548	32,483
Louisiana	13,433	13,924	13,435	13,910	13,451	13,910	13,301	13,728
Maryland	7,179	7,540	7,238	7,540	7,235	7,540	6,983	7,293
Michigan	25,989	28,037	26,058	26,250	25,771	26,180	25,381	25,168
Mississippi	10,161	11,212	10,164	11,212	10,153	11,212	9,106	9,592
Missouri	23,156	23,759	22,952	23,759	22,952	23,661	21,433	21,707
New Jersey	3,440	3,668	3,448	3,669	3,407	3,668	3,361	3,648
New York	8,336	9,031	8,329	9,035	8,420	8,910	8,039	8,525
North Carolina	22,902	20,169	22,904	20,182	22,642	19,997	21,240	18,949
Ohio	42,274	41,327	42,302	40,493	41,863	40,375	38,437	38,348
Oklahoma	31,415	31,723	21,574	22,059	20,998	21,328	20,009	19,456
Pennsylvania	52,895	54,217	52,626	54,134	52,444	53,842	49,279	49,444
South Carolina	15,145	16,586	15,108	16,351	14,946	15,958	13,594	14,745
Tennessee	15,505	12,141	15,512	12,126	15,486	12,126	14,715	11,613
Texas	64,711	65,492	63,081	64,341	62,872	64,448	60,419	62,453
Virginia	15,148	15,339	14,662	15,299	14,599	15,116	12,543	13,575
West Virginia	26,464	27,099	26,350	27,014	26,151	26,819	23,988	24,485
Wisconsin	15,876	16,048	13,971	14,134	13,928	14,035	12,412	12,897
Total	**654,161**	**647,439**	**618,267**	**608,702**	**614,807**	**604,728**	**573,150**	**565,498**

The results of the IPM modeling show that the Maryland ozone season emissions in CSAPR 2012 Base Case are lower than the 2012 $500/ton and the 2012 $1000/ton[2]. Therefore, at a minimum, Maryland is already controlling NOx emissions from electric generating units at a cost of twice the CSAPR remedy.

[2] Table B-1. 2012 & 2014 Ozone Season NOx EGU Emissions for Each State at Various Pollution Control Cost Thresholds per Ton of Reduction (Tons); Significant Contribution and State Emissions Budgets Final Rule TSD; EPA-HQ-OAR-2009-0491

Additional Maryland Control Measures

Maryland has regulated emissions from its mobile sector by implementing an enhanced vehicle emissions inspection and maintenance program (COMAR 11.14.08), Stage II gasoline pump controls (COMAR 26.11.24), heavy duty diesel engine controls (COMAR 26.11.20.06), Tier I and Tier II vehicle emissions standards (COMAR 26.11.20), the Clean Car Act of 2007 (CAL LEV) (COMAR 26.11.34), evaporative test procedures (COMAR 26.11.22), NLEV controls (COMAR 26.11.20.02), and reformulated gasoline in on-road vehicles (COMAR 26.11.20.03).

By being a CAL LEV state, Maryland has the toughest vehicle emission standards allowed by law. The Maryland Clean Car Program was adopted in 2007, after passage of the enabling legislation, as a strategy to reduce ozone forming emissions and decrease the carbon footprint from the transportation sector. The program, which has emission standards more strict than the current federal standards, aims to improve air quality by reducing emissions from the cars and light trucks we drive everyday.

Beginning with vehicle model year 2011, all cars and light trucks sold in Maryland are required to meet these newer, more stringent standards. Volatile organic compounds (VOCs) and nitrogen oxides (NOx) will be reduced by approximately 3.55 and 5.18 more tons/day, respectively, by 2025.

The State has also pursued significant regulation of non-EGU industrial sources, including Distributed Generation (COMAR 26.11.26), Portland Cement Manufacturing Plants (COMAR 26.11.29.03), Kraft Pulp Mills (COMAR 26.11.14), Yeast Manufacturing Plants (COMAR 26.11.19.17.17), Commercial Bakeries (COMAR 26.11.19.21.21), Iron and Steel Production (COMAR 26.11.10.01, .06, .07), Fuel Burning Equipment (COMAR 26.11.14.07), Incinerators (COMAR 26.11.08), and Internal Combustion Engines at Natural Gas Pipeline Compression Stations (COMAR 26.11.29.05).

Maryland has implemented a substantial number of VOC rules targeted at printers, consumer products, portable fuel containers, and industrial coating, adhesive, and sealant operations. Pursuant to the requirements of §7511a(b)(2), Maryland has implemented RACT controls for all source categories covered by a Control Technique Guideline (CTG) issued by EPA, and on all other "major" stationary sources emitting 25 tons per year or more of VOC or NOx (see Appendices for a listing of NOx and VOC regulations).[3] Many of these Maryland specific regulations are presented in the table below:

[3] Maryland RACT controls have been promulgated at COMAR 26.11.09.08 (Control of NOx emissions for Major Stationary Sources), COMAR 26.11.11 (Control of Petroleum Products Installations, Including Asphalt Paving and Asphalt Concrete Plants), COMAR 26.11.13 (Control of Gasoline and Volatile Organic Compound Storage and Handling), COMAR 26.11.19 (Volatile Organic Compounds from Specific Processes), COMAR 26.11.32 (Control of Emissions of Volatile Organic Compounds from Consumer Products), COMAR 26.11.33 (Architectural Coatings), and COMAR 26.11.35 (Volatile Organic Compounds from Adhesives and Sealants).

VOC STATE REGULATIONS	
COMAR Reference	**COMAR Title**
COMAR 26.11.06.06	Control of Volatile Organic Compound Emissions
COMAR 26.11.10.01, .06, .07	Control of Iron and Steel Production Installations
COMAR 26.11.11	Control of Petroleum Products Installations, Including Asphalt Paving and Asphalt Concrete Plants
COMAR 26.11.13.01, .03, .04, .05, and .08	Control of Gasoline and Volatile Organic Compound Storage and Handling
COMAR 26.11.14.01 and .06	Control of Emissions from Kraft Pulp Mills
COMAR 26.11.19	Volatile Organic Compounds from Specific Processes
COMAR 26.11.24	Stage II Vapor Recovery at Gasoline Dispensing Facilities

NOX STATE REGULATIONS	
COMAR Reference	**COMAR Title**
COMAR 26.11.09.08	Control of NO_x Emissions for Major Stationary Sources
COMAR 26.11.14.07	Control of NO_x Emissions from Fuel Burning Equipment
COMAR 26.11.29.03	Emission Reduction Requirements for Portland Cement Manufacturing Plants"
COMAR 26.11.29.05	Emission Reduction Requirements for Stationary Internal Combustion Engines at Natural Gas Pipeline Compression Stations

Maryland Supports Additional EPA Federal Control Measures

Maryland also supports EPA's planned federal emissions reduction measures such as Tier 3 vehicles, ICI boilers, cement kiln regulations and the Cross-State Air Pollution Rule (CSAPR) and subsequent CSAPR II initiatives.

Additional Maryland Voluntary/Innovative Control Measures

Maryland has also implemented the following programs in recent attainment SIPs that are listed as voluntary and innovative measures. MDE does not rely on any emission reductions projected as a result of implementation of these programs to demonstrate attainment because actual air quality benefits are uncertain and hard to quantify. These strategies however assist in the overall clean air goals in Maryland. A list of these programs is presented below:

- Regional Forest Canopy Program, Conservation, Restoration, and Expansion: expanded tree canopy cover is an innovative voluntary measure proposed to improve the air quality in the Baltimore region
- Clean Air Teleworking Initiative: encourages teleworking on bad air days

- High Electricity Demand Day (HEDD) Initiative: On March 2, 2007, the OTC states and the District of Columbia agreed to a Memorandum of Understanding (MOU) committing to reductions from the HEDD source sector
- Emission Reductions from Transportation Measures:
    - Clean and Efficient Strategies such as diesel retrofits
    - Traffic Flow Improvement (CHART) to reduce congestion caused by accidents
    - Truck Stop Electrification (TSE) to reduce diesel truck idling emissions
    - Electronic Toll Collection
    - Traffic Signal System Retiming
    - Ride Share and Maryland Commuter Tax Credit
    - Clean Commute Month including Bike to Work Day events
    - Transit Oriented Development
    - Bicycle/pedestrian Enhancements: the Maryland State Highway Administration (SHA) has worked to engineer and implement new and improved bicycle and pedestrian facilities, and has implemented programs to encourage pedestrians
    - MARC Station parking enhancements, refurbishment of MARC rolling stock, and locomotive retrofits
    - MTA and LOTS bus purchases
    - Bus service enhancements such as automatic vehicle locators (AVL), next bus arrivals posted on electronic signs at stops, and on the internet
    - Smart Card Implementation for easier travel between transit modes
    - Port of Baltimore Initiatives: crane retrofits, clean diesel in port vehicles, hybrid port fleet vehicles

MDE is working with MDOT, local stakeholders, EPA Region III and EPA OTAQ on a regulation designed to achieve and additional 10% NOx reduction from mobile sources in the Baltimore and Washington DC areas. These mobile NOx from these areas make up approximately 30% of the overall NOx inventory from the state. If successful, the regulations would result in a significant reduction in NOx in these regions.

MDE research has shown that this effort could be the single most important control effort that Maryland can undertake to reduce both its local contribution to ozone and its contribution to ozone in the Philadelphia region.

The regulation complements Maryland's current conformity regulations and asks local and state transpiration decision makers to voluntarily achieve the additional 10% reduction as they add new projects to the transportation plans in Baltimore and Washington DC.

In total, Maryland’s control program implements some of the most stringent local controls in the country. These controls have resulted in some of the lowest ozone

precursor emissions rates in the country.[4] A detailed list of many control measures that have been previously SIPed are in Appendices A and B.

Statewide Regulations

CAA section 110(a)(2)(D) requires SIPs to include provisions prohibiting any source or other type of emissions activity in one state from contributing significantly to nonattainment, or interfering with maintenance, of the NAAQS in another state, or from interfering with measures required to prevent significant deterioration of air quality or to protect visibility in another state.

Maryland interprets this section as meaning that the state is required to address significant contribution for the entire state, and not portions of a state or nonattainment areas. As such, Maryland's regulations apply statewide.

Conclusion

The EPA CSAPR modeling results show that emissions from Maryland contribute significantly to 8-hour ozone nonattainment 0.08 ppm standard in other states. As discussed above, Maryland is in the process of adopting or pursuing adoption of additional control measures that are projected to further reduce its contribution to any remaining downwind nonattainment. As a result Maryland expects to fully meet its CAA section 110(a)(2)(D) obligations under a 0.075 ppm standard.

EPA Requirement:

(i) Contain adequate provisions prohibiting any source or other type of emissions activity from emitting any air pollutant in amounts which will:

(II) interfere with measures required to be included in the applicable implementation plan for any other State under part C to prevent significant deterioration of air quality or to protect visibility.

Maryland Requirement:

- PSD requirements under COMAR 26.11.06.14.
- NSR requirements under COMAR 26.11.17
- Maryland is required to develop and implement a Regional Haze State Implementation Plan (SIP) to protect visibility. Maryland submitted this SIP to

[4] According to EPA's IPM analysis of the Cross State Air Pollution Rule (CSAPR) for the Final Base Case modeling run, Maryland is projected to emit 19.6 tons NOx during 2012 (8.5 tons NOx during the 2012 ozone season). Final Base Case data available at http://www.epa.gov/airmarkets/progsregs/epa-ipm/transport.html.

EPA in the first quarter of 2012. In addition, Maryland has developed and implemented a PM2.5 SIP in 2008 that assists with reducing visibility impairing pollutants. The PM2.5 SIP relies on Maryland's Healthy Air Act (HAA) to provide the bulk of these reductions. The HAA requires emissions reductions from power plants which, when compared to a 2002 emissions baseline, reduced total NOx emissions in Maryland by almost 70% in 2009 and 2010 (approximately 50,000 tons NOx per year), and will eventually reduce NOx emissions by approximately 75% from 2002 levels.[5]

EPA Requirement:

(ii) Insure compliance with the applicable requirements of §§ 126[6] and 115[7] (interstate and international pollution abatement).

Maryland Requirement:

- Permitting regulations under COMAR 26.11.02.

- PSD regulation under COMAR 26.11.06.14. Maryland confirms that new major sources and major modifications in the state are subject to PSD under COMAR 26.11.06.14. The most recent revision of this regulation was July 16, 2009. Maryland has submitted to EPA a fully-adopted PSD program that applies to all regulated NSR pollutants including Greenhouse Gases.

- §2-301(a)(1) Environment Article, Annotated Code of Maryland (authority to control air pollution).

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[5] Md. Code Ann., Envir. §§ 2-1001-1002.

[6] §126 (a) Each plan shall (1) require each major proposed new or modified source (A) subject to Part C or (D) which may significantly contribute to pollution in excess of the NAAQS in any AQCR outside the State in which such source intends to locate or modify, to provide written notice to all nearby States the pollution levels of which may be affected by such source 60 days prior to the date on which commencement of construction is to be permitted by the State, and (2) identify all major existing stationary sources which may have the impact described in (1) with respect to new or modified sources and provide notice to all nearby States of the identity of such sources. (b) Any State may petition EPA for a finding that any major source or group of stationary sources emits or would emit any pollutant in violation of the prohibition of § 110(a)(2)(D)(ii) or this section. (c) Notwithstanding any permit which may have been granted by the State, it shall be a violation of this section and the plan - (1) for any major proposed new or modified source with respect to which a finding has been made under subsection (b) to be constructed or to operate in violation of this section and the prohibition of § 110(a)(2)(D)(ii) or this section, or (2) for any major existing source to operate more than 3 months after such finding has been made. EPA may permit the continued operation of a source beyond the expiration of the 3-month period if the source complies with the emission limitations and compliance schedules as may be provided by EPA to bring about compliance with the requirements of § 110(a)(2)(D)(ii). Nothing shall be construed to preclude any such source from being eligible for an enforcement order under § 113(d) after the expiration of such period during which EPA has permitted continuous operation.

[7] § 115 (a) Whenever EPA, upon receipt of reports, surveys or studies from any duly constituted international agency has reason to believe that any pollutants emitted in the US cause or contribute to pollution which may reasonably be anticipated to endanger public health or welfare in a foreign country or whenever the Secretary of State requests it to do so, EPA shall give formal notification to the Governor of the State in which such emissions originate. (b) The EPA notice shall be deemed to be a finding under § 110(a)(2)(H)(ii) which requires a plan revision with respect to so much of the applicable plan as is inadequate to prevent or eliminate the endangerment. Any foreign country so affected by such emission of pollutants shall be invited to appear at any public hearing associated with any revision of the appropriate portion of the applicable plan. (c) This section shall apply only to a foreign country which EPA determines has given the US the same rights with respect to the prevention or control of air pollution occurring in that country. (d) Recommendations issued following any abatement conference conducted prior to CAA 1977 shall remain in effect with respect to any pollutant for which no NAAQS has been established under § 109 unless EPA, after consultation with all agencies, which were party to the conference, rescinds any such recommendation.

- In addition, nothing in Maryland's statutory or regulatory authority prohibits or otherwise interferes with Maryland's ability to exercise sections 126 and 115 of the CAA. Neither this state nor any major source in this state is currently subject to any pending petition or active finding under Section 126 or 115 of the CAA with respect to any air pollutant. Unless a state is the subject of a Section 126(b) or 126(c) petition with respect to ozone, the state has no continuing obligation under these sections.

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§110(a)(2)(E)

EPA Requirement:

Provide:

(i) necessary assurances that the State will have adequate personnel, funding, and authority under State law to carry out such implementation plan (and is not prohibited by any provision of Federal or State law from carrying out such plan).

Maryland Requirement:

- This is accomplished through the §105 grant process and the Maryland Clean Air Fund (§2-107 Environment Article, Annotated Code of Maryland) composed of funds collected from application fees, permit fees, renewal fees, and civil or administrative penalties or fines.

- The Clean Air Fund may be used for (1) identifying, monitoring, and regulating air pollution in the State, including program development of these activities as provided in the State budget; and (2) providing grants to local governments to supplement funding for programs conducted by local governments that are consistent with the Maryland program.

EPA Requirement:

(ii) Requirements that the State comply with the requirements respecting State boards under § 128[8].

Maryland Requirement:

[8] § 128 (a) each plan shall contain requirements that - (1) any board or body which approves permits or enforcement orders shall have at least a majority of members who represent the public interest and do not derive any significant portion of their income from persons subject to permits or enforcement orders, and (2) any potential conflicts of interest by members of such board or body or the head of an executive agency with similar powers be disclosed. A State may adopt any requirements respecting conflicts of interest for such boards or bodies or heads of executive agencies, or any other entities which are more stringent than the requirements of (1) and (2).

- Maryland does not have any board or body that approves air quality permits or enforcement orders; these are the sole responsibility of the Maryland Department of Environment (MDE). The Maryland Public Service Commission (PSC) issues Certificates of Public Convenience and Necessity (CPCN) for utility installations, regulates utility rates and charges, and regulates the reliability of Maryland's electricity grid.

EPA Requirement:

(iii) Necessary assurances that, where the State has relied on a local or regional government, agency, or instrumentality for the implementation of any plan provision, the State has responsibility for ensuring adequate implementation of such plan provision.

Maryland Requirement:

- Maryland does not rely on localities for specific SIP implementation.

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§110(a)(2)(F)

EPA Requirement:

Require, as may be prescribed by EPA:

(i) installation, maintenance, and replacement of equipment, and implementation of other necessary steps, by owners or operators of stationary sources to monitor emissions.

Maryland Requirement:

- §2-103(b)(2) Environment Article, Annotated Code of Maryland.
- §2-301(a)(1) Environment Article, Annotated Code of Maryland.
- Specific monitoring requirements are found throughout COMAR 26.11 (i.e. COMAR 26.11.01.10 & COMAR 26.11.01.11).

EPA Requirement:

(ii) Periodic reports on the nature and amounts of emissions and emissions-related data.

Maryland Requirement:

- COMAR 26.11.01.04 Testing & Monitoring.

- COMAR 26.11.01.05 Records and Information.
- COMAR 26.11.01.05-1 Emission Statements.
- COMAR 26.11.01.07 Malfunctions & Other Temporary Increases in Emissions.
- COMAR 26.11.01.10 & .11 CEM Requirements.
- Also, specific monitoring requirements for specific types of sources under other chapters.

EPA Requirement:

(iii) Correlation of such reports by the State agency with any emission limitations or standards established pursuant to CAA, which reports shall be available at reasonable times for public inspection.

Maryland Requirement:

- §2-302 (b) and (c) and specific monitoring requirements are found throughout COMAR 26.11 (i.e. COMAR 26.11.01.10 & COMAR 26.11.01.11).

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§110(a)(2)(G)

EPA Requirement:

Provide for authority comparable to that in § 303[9] and adequate contingency plans to implement such authority.

Maryland Requirement:

- §2-105, Environment Article, Annotated Code of Maryland.
- §2-604 (Administrative corrective order authority) and § 2-609 (a) (Civil injunctive authority) Environment Article, Annotated Code of Maryland used to address accidental or other releases that are not authorized by statute, regulation

[9] § 303. Notwithstanding any other CAA provisions, EPA upon receipt of evidence that a pollution source or combination of sources (including moving sources) is presenting an imminent and substantial endangerment to public health or welfare, or the environment, may bring suit on behalf of the US in district court to immediately restrain any person causing or contributing to the alleged pollution to stop the emission of pollutants causing or contributing to such pollution or to take such other action as may be necessary. If it is not practicable to assure prompt protection of public health or welfare or the environment by commencement of such a civil action, EPA may issue such orders as may be necessary to protect public health or welfare or the environment. Prior to taking any action, EPA shall consult with appropriate State and local authorities and attempt to confirm the accuracy of the information on which the proposed action is based. Any order issued by EPA shall be effective upon issuance and shall remain in effect for a period of not more than 60 days, unless EPA brings an action pursuant to the first sentence of this section before the expiration of that period. Whenever EPA brings such an action within the 60-day period, such order shall remain in effect for an additional 14 days or longer as authorized by the court.

or permit or occur in conjunction with violations of existing regulatory requirements.

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§110(a)(2)(H)

EPA Requirement:

Provide for revision of such plan:

(i) from time to time as necessary to take account of revisions of such national primary or secondary ambient air quality standard or the availability of improved or more expeditious methods of attaining such standard.

Maryland Requirement:

- §2-301(a)(1) Environment Article, Annotated Code of Maryland.

EPA Requirement:

Provide for revision of such plan:

(ii) except as provided in (3)(C), whenever EPA finds on the basis of information available to EPA that the plan is substantially inadequate to attain the NAAQS which it implements or to otherwise comply with any additional CAA requirements.

Maryland Requirement:

- §2-301(a)(1) Environment Article, Annotated Code of Maryland.

- Maryland's SIP is essentially a compilation of regulations. The authority to develop or revise a SIP is based on the authority to adopt new regulations and revise existing regulations to meet the NAAQS.

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§110(a)(2)(I)

EPA Requirement:

In the case of a plan or plan revision for an area designated as a nonattainment area, meet the applicable requirements of part D (relating to nonattainment areas).

Maryland Requirement:

- §2-301(a)(1) and §2-302(d) Environment Article, Annotated Code of Maryland.

- COMAR 26.11.17 Requirements for Major New Sources and Modifications.

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§110(a)(2)(J)

EPA Requirement:

Meet applicable requirements of § 121[10] (consultation).

Maryland Requirement:

- Metropolitan Washington Air Quality Committee (MWAQC) was certified in 1991 by chief executives of Maryland, Virginia and the District of Columbia as the entity responsible for carrying out the regional planning requirements of the Clean Air Act Amendments of 1990 (membership includes local elected officials).

- Interstate Air Quality Council (IAQC) Memorandum of Understanding signed 3/24/05 by the Governors of Maryland, Virginia and the District of Columbia.

- COMAR 26.11.26 provides a legal platform for the various consultation procedures that have been developed between the Maryland Department of the Environment (MDE), Maryland Department of Transportation (MDOT), and Metropolitan Planning Organizations (MPOs). The MPOs provide the forum for consultation with local governments. Maryland's MPOs are: (1) the Baltimore Regional Transportation Board (BRTB), (2) the National Capital Transportation Planning Board (TPB) for the Washington region, (3) the Wilmington Area Planning Council (WILMAPCO) for New Castle County, Delaware and Cecil County, Maryland, and (4) the Hagerstown/Eastern Panhandle (HEPMPO) for the Hagerstown area, which includes Washington County, Maryland and the counties of Berkeley and Jefferson in West Virginia. For the regional haze program, MDE consults with Federal Land Managers (FLMs).

- The Air Quality Control Advisory Council consultation process (§§ 2-201-206 Environment Article, Annotated Code of Maryland).

- COMAR 26.11.17 nonattainment New Source Review requirements; PSD permit requirements under COMAR 26.11.06.14**.**

[10] § 121. In carrying out requirements for plans to contain - (1) any transportation controls, air quality maintenance plan requirements or preconstruction review of direct sources of pollution, or (2) any measure referred to - (A) in part D), or (B) in part C, and in carrying out the requirements of § 113(d), the State shall provide a satisfactory process of consultation with general purpose local governments, designated organizations of elected officials of local governments and any FLM having authority over Federal land to which the State plan applies. Such process shall be in accordance with regulations promulgated by EPA. Only a general purpose unit of local government, regional agency, or council of governments adversely affected by action of EPA approving any portion of a plan may petition for judicial review.

EPA Requirement:

Meet applicable requirements of § 127[11] (public notification).

Maryland Requirement:

- All relevant SIPs and plans to achieve the NAAQS contain public notification provisions related to air monitoring levels such as Ozone Action Days, Air Quality Action Days, Clean Air Partners, Airwatch.net, and MDE's website.

- MDE provides extended range air quality forecasts, which give the public advanced notice of air quality events. This advance notice allows the public to limit their exposure to unhealthy air and enact a plan to reduce pollution at home and at work.

- MDE forecasts daily ozone and particle levels and issues e-mails to the public, businesses and the media via AirAlerts. AirAlert e-mail forecasts and notifications are free to the public and users can sign-up at www.cleanairpartners.net. The forecast is also available on the air quality hotline at (410) 537-3247. Visitors to the Clean Air Partners web site can also monitor current air quality conditions throughout the region and can customize their AirAlert profile to meet their air quality information needs.

- In addition, air quality calendars display past air quality information and dynamic graphs provide summaries of unhealthy air quality experienced throughout the region. This feature of the web site allows the public to monitor long term air quality and see how one year compares to previous years.

EPA Requirement:

Meet applicable requirements of Part C (PSD and visibility protection).

Maryland Requirement:

- Maryland incorporated PSD requirements by reference (COMAR 26.11.06.14).

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§110(a)(2)(K)

EPA Requirement:

[11] § 127. (a) Each plan shall contain measures to regularly notify the public of when any NAAQS is exceeded or was exceeded during the preceding year, to advise the public of health hazards associated with such pollution, and to enhance awareness of measures which can be taken to prevent the standards from being exceeded and ways in which the public can participate in regulatory and other efforts to improve air quality.

(i) Provide for performance of air quality modeling as EPA may prescribe for the purpose of predicting the effect on ambient air quality of any emissions of any air pollutant for which EPA has established a NAAQS.

Maryland Requirement:

- §2-302 Environment Article, Annotated Code of Maryland.
- Inherent in the obligation to meet the NAAQS is the authority for the Department to perform modeling as required under the CAA to demonstrate attainment.

EPA Requirement:

(ii) Provide for the submission, upon request, of data related to such air quality modeling to EPA.

Maryland Requirement:

- Air quality modeling data is submitted as part of Maryland's relevant SIP submissions and through federal grant commitments.

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§110(a)(2)(L)

EPA Requirement:

Require owner of a major stationary source to pay, as a condition of any permit required under CAA, a fee sufficient to cover: (i) reasonable cost of reviewing and acting upon any permit application, and (ii) if the owner receives a permit, the reasonable costs of implementing and enforcing the terms and conditions of the permit (not including court costs or costs associated with enforcement), until fee requirement is superseded by EPA approval of a Title V fee program.

Maryland Requirement:

- COMAR 26.11.02.16—19.

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§110(a)(2)(M)

EPA Requirement:

Provide for consultation and participation by local political subdivisions affected by the plan.

Maryland Requirement:

- Broad authority under §2-301(a)(1) Environment Article, Annotated Code of Maryland.

- COMAR 26.11.26 for conformity purposes- last amended January 27, 2007.

- Other significant consultation processes include the Metropolitan Washington Air Quality Committee (MWAQC) and the Interstate Air Quality Committee (IAQC).

2.0 Conclusion

Based on the information provided above, Maryland fully complies with the requirements of §110(a)(2)(A) through §110(a)(2)(M). Therefore, no implementation plan to correct deficiencies is needed.

Appendix A: Maryland NO_x RACT Regulations under the 8-Hour Ozone NAAQS

Source Category	Code of Maryland Regulations (COMAR) Citation	SIP # & SIP Final Date(s) Approved by EPA
Fuel-Burning Equipment Located at Major Sources – General Requirements and Conditions	26.11.09.08A&B	SIP 00-06, 2/8/2001
Fuel-Burning Equipment with a Rated Heat Input Capacity of 250 MMBtu/hr or Greater	26.11.09.08C	SIP 00-06, 2/8/2001
Fuel-Burning Equipment with a Rated Heat Input Capacity of Less than 250 MMBtu/hr and Greater than 100 MMBtu/hr	26.11.09.08D	SIP 00-06, 2/8/2001 SIP 02-06, 5/1/2003
Fuel-Burning Equipment with a Rated Heat Input Capacity of 100 MMBtu/hr or Less	26.11.09.08E	SIP 00-06, 2/8/2001
Space Heaters	26.11.09.08F	SIP 00-06, 2/8/2001
Fuel-Burning Equipment with a Capacity Factor of 15 Percent or Less	26.11.09.08G(1)	SIP 00-06, 2/8/2001
Combustion Turbines with a Capacity Factor Greater than 15 Percent	26.11.09.08G(2)	SIP 00-06, 2/8/2001
Hospital, Medical, and Infectious Waste Incinerators (HMIWI)	26.11.09.08H(4)	SIP 00-06, 2/8/2001
Municipal Waste Combustors (MWC)	26.11.09.08H(3)	SIP 00-06, 2/8/2001
Glass Melting Furnaces	26.11.09.08I(1)&(2)	SIP 00-06, 2/8/2001
Industrial Furnaces and Other Miscellaneous Installations that Cause Emissions of NO_x	26.11.09.08J	SIP 00-06, 2/8/2001
Kraft Pulp Mills	26.11.14.07 26.11.09.08C(2)(h)‡	Adopted in Maryland effective 7/26/10, not yet submitted to EPA. SIP 00-06, 2/8/2001
Portland Cement Manufacturing Plants	26.11.29.03 26.11.09.08H(1)&(2)‡	SIP 00-05, 1/10/2001 SIP 03-09, 3/22/2004 SIP 00-06, 2/8/2001
Stationary Internal Combustion Engines at Natural Gas Compression Stations	26.11.29.05B & C 26.11.09.08I(3)&(4)‡	SIP 00-05, 1/10/2001 SIP 03-09, 3/22/2004 SIP 00-06, 2/8/2001

Appendix B: Maryland VOC RACT Regulations under the 8-Hour Ozone NAAQS

Maryland Regulation	Rule Applicability and Requirements	Latest SIP # Date Adopted Date EPA Approved
COMAR 26.11.06 **Regulation .06** General Emission Standards, Prohibitions, and Restrictions Volatile Organic Compounds	Applies to VOC emitting installations above 20 pounds per day. Emissions are required to be controlled by 85% or more.	SIP # 99-07 Adopted 4/11/1995 Approved 2/27/2003
COMAR 26.11.10 **Regulations .01, .06, .07** Control of VOCs from Iron and Steel Production Installations	Establishes a standard for VOC emissions from the sinter plant. Requires installation of a CEM system, use of a "good management practices" manual. COMAR 26.11.19.02G requires major VOC sources to comply with RACT. There is one integrated steel mill in Maryland. Its total VOC emissions exceed the major source threshold	SIP# 01-01 Adopted 12/5/2000 Approved 11/7/01
COMAR 26.11.11 Control of Petroleum Products Installations, including Asphalt Paving and Asphalt Concrete Plants	Applies to the manufacture, mixing, storage, use, and application of cutback and emulsified asphalts. Restricts cutback asphalt during the ozone season without approval.	SIP# 93-05 Adopted 3/26/93 Approved 1/6/95
COMAR 26.11.13 **Regulation .01B(4)** amended definition of "Gasoline"	Applies to sources that store and handle JP-4, a jet fuel.	SIP # 98-07 Adopted 7/18/97 Approved 12/22/98
COMAR 26.11.13 **Regulations .01B(6-1), (13)** Definitions of "Marine Vessel" and "Vapor Control System"	Defines "Marine vessel" and "vapor control system".	SIP# 07-12 Adopted 9/12/07 Approved 7/18/08

Maryland Regulation	Rule Applicability and Requirements	Latest SIP # Date Adopted Date EPA Approved
COMAR 26.11.13 **Regulation .03A** Large Storage Tanks - Closed Top Tanks	Applies to gasoline liquid storage tanks with fixed roofs and with capacity of 40,000 gallons or greater. Covers sealing standards for a covered storage tank, openings, connection between roof edge and tank wall and vents.	SIP# 91-02 Adopted 3/9/1991 Approved 11/29/1994
COMAR 26.11.13 **Regulation .03 B** Large Storage Tanks - Open Top tanks	Applies to gasoline storage tanks with external floating roofs and with capacity of 40,000 or greater. Incorporates sealing standards for a storage tank, including its openings, its connection roof and tank wall, all seal closure devices, vents, and emergency roof drains.	SIP# 91-01B Recodification only from 10.18 to 26.11 on 7/1/87 Approved 11/3/92
COMAR 26.11.13 **Regulation .04 A** Loading Operations – Bulk Gasoline Terminals	Applies to all the loading racks at any bulk gasoline terminal that deliver liquid product into gasoline tank trucks. A vapor collection and control system designed to collect and destroy the organic compound liquids or vapors displaced from gasoline tank trucks during product loading is required and various other equipment and operational requirements are also included.	SIP# 93-05 Adopted 3/26/1993 Approved 1/6/1995

Maryland Regulation	Rule Applicability and Requirements	Latest SIP # Date Adopted Date EPA Approved
COMAR 26.11.13 **Regulation .04 B** Loading Operations – Bulk Gasoline Plants	Applies to all unloading, loading, and storage operations at bulk gasoline plants. Requires the use of vapor balance, and sets standards for equipment and work practices.	SIP# 81-01 Adopted 4/8/1981 Approved 5/11/1982
COMAR 26.11.13 **Regulation .04 C** Loading Operations – Small Storage Tanks	Applies to storage tanks with capacity greater than 2000 gallons but less than 40,000 gallons and requires Stage I vapor recovery.	SIP# 93-05 Adopted 3/26/1993 Approved 1/6/1995
COMAR 26.11.13 **Regulation .04 C** Loading Operations – Small Storage Tanks	Increases the gasoline storage tank capacity affected by Stage I vapor recovery from the previous 250 gallon capacity to greater than 2,000 gallons.	SIP # 98-06 Adopted 7/18/97 Approved 9/2/98
COMAR 26.11.13 **Regulation .05** Gasoline Leaks from Tank Trucks	Applies to gasoline tank trucks and requires compliance with standards for vapor-tightness.	SIP# 93-02 Adopted 1/18/1993 Approved 9/7/1994
COMAR 26.11.13 **Regulation .08** Control of VOC Emissions from Marine Vessel Loading	Requires owners or operators of barge loading facilities in the Baltimore/Washington areas to reduce captured VOC vapors by 90 percent if emissions from the barge loading are ≥ 25 TPY. In rest of State, controls are required if emissions are ≥ 50 TPY.	SIP# 07-12 Adopted 9/12/07 Approved 7/18/08
COMAR 26.11.14 **Regulations .01 and .06** Control of VOC Emissions from Kraft Pulp Mills	Establishes RACT standards for VOC emissions from several process installations at MD's one mill including the condensate steam stripper, the digester blow tank system, the evaporators, brown stock washers, bleach rooms and paper machines, recovery boilers, smelt dissolving tanks, and other miscellaneous operations.	SIP# 01-11 Adopted 9/25/01 Approved 11/7/01

Maryland Regulation	Rule Applicability and Requirements	Latest SIP # Date Adopted Date EPA Approved
COMAR 26.11.19 **Regulations .01B(4) and .02 G** **Control of Major Stationary Sources of Volatile Organic Compounds.** Maryland's generic major source VOC RACT regulation	Applies to all major stationary sources not subject to any VOC emission standard in COMAR 26.11.11, 26.11 .13, or Regulations .02 - .31 of COMAR 26.11.19.	SIP # 95-14 Adopted 4/13/1995 5/13/98
COMAR 26.11.19 **Regulation .02 I** Good Operating Practices, Equipment Cleanup, and VOC Storage.	Applies to all installations located at premises that are subject to any VOC requirement in COMAR 26.11.19. Requires sources to implement such things as: training of operators on good operating and maintenance procedures to minimize VOC emissions; storing VOC or VOC-containing materials in closed containers; using available spray gun cleaning and application technology to eliminate or minimize VOC emissions; and equipping VOC storage tanks with conservation vents and vapor balance systems.	SIP# 01-14 Adopted 11/6/01 Approved 2/3/03
COMAR 26.11.19 **Regulation .03** Automotive Light Duty Truck Coating	Apply to automobile or light-duty truck assembly plants, and any can, coil, paper, fabric, or vinyl coating unit. Establish coating VOC content limits specific to operations.	SIP# 98-01 Adopted 8/18/1997 Approved 11/5/1998
COMAR 26.11.19 **Regulation .04** Can Coating	Apply to automobile or light-duty truck assembly plants, and any can, coil, paper, fabric, or vinyl coating unit. Establish coating VOC content limits specific to operations.	SIP# 91-01B Recodification only from 10.18 to 26.11 on 7/1/87 Approved 11/3/92
COMAR 26.11.19 **Regulation .05** Coil Coating	Apply to automobile or light-duty truck assembly plants, and any can, coil, paper, fabric, or vinyl coating unit. Establish coating VOC content limits specific to operations.	SIP# 91-01B Recodification only from 10.18 to 26.11 on 7/1/87 Approved 11/3/92

Maryland Regulation	Rule Applicability and Requirements	Latest SIP # Date Adopted Date EPA Approved
COMAR 26.11.19 **Regulation .06** Large Appliance Coating	Requires use of compliant coatings with a VOC content of less 2.8 lbs/gal.	SIP# 91-01B Recodification only from 10.18 to 26.11 on 7/1/87 Approved 11/3/92
COMAR 26.11.19 **Regulation .07** Paper, Fabric, Vinyl, and Other Plastic Parts Coating	Apply to automobile or light-duty truck assembly plants, and any can, coil, paper, fabric, or vinyl coating unit. Establish coating VOC content limits specific to operations.	SIP# 99-04 Adopted 8/6/1997 & 8/4/1998 Approved 1/14/2000
COMAR 26.11.19 **Regulation .07-1** Solid Resin Decorative Surface Manufacturing	Requires control of 75 % emissions from solid resin decorative surface manufacturing operation with the help of a control device.	SIP# 99-02 Adopted 5/20/1998 Approved 6/17/1999
COMAR 26.11.19 **Regulation .08** Metal Furniture Coating	Requires use of compliant coatings with a VOC content of less than 3.0 lb/gal.	SIP# 91-01B Recodification only from 10.18 to 26.11 on 7/1/87 Approved 11/3/92
COMAR 26.11.19 **Regulation .09** Control of VOC Emissions from Cold and Vapor Degreasing	Requires controls on vapor degreasing operations and applies to a person who uses a VOC degreasing material for use in cold or vapor degreasing.	SIP# 95-09 Adopted 5/12/1995 Approved 8/4/1997
COMAR 26.11.19 **Regulation .10** Flexographic and Rotogravure	This regulation applies to any packaging rotogravure, publication rotogravure, or flexographic printing process at a facility. The rule establishes the limits of VOC contents in coatings and inks used in the covered facilities, and specify standards for control devices for various printing processes.	SIP# 95-11 Adopted 5/5/1995 Approved 9/2/1997

Maryland Regulation	Rule Applicability and Requirements	Latest SIP # Date Adopted Date EPA Approved
COMAR 26.11.19 **Regulation .11** Lithographic Printing	Applies to offset lithographic printing, including heatset and non-heatset web, non-heatset sheet-fed, and newspaper facilities. A 90 percent reduction of VOC emissions (by weight) from the press dryer exhaust vent of heatset printing operations, limits the alcohol content in fountain solutions, and establishes standards for cleaning printing equipment.	SIP# 95-11 Adopted 5/5/1995 Approved 9/2/1997
COMAR 26.11.19 **Regulation .12** Dry Cleaning Installations	Applies to petroleum dry cleaning facilities that consume 6000 gallons or more petroleum solvent per year. The rule establishes emission limits or reduction requirements for emissions, inspection, repair and reporting requirements for dryers, filtration systems and other equipment.	SIP# 91-03 Adopted 7/24/1991 Approved 9/7/1994
COMAR 26.11.19 **Regulation .13** Miscellaneous Metal Coating	Applies to any miscellaneous metal parts coating operation, and allows coatings with a VOC content in the range of 3.0 to 4.3 lb/gal.	SIP# 91-02 Adopted 3/9/1991 Approved 11/29/1994
COMAR 26.11.19 **Regulation .13-1** Aerospace Coating Operations	Applies to aerospace coating operations and emission limits for coating types range from 1.3 to 3.5 pounds per gallon. For over 50 specialty coatings the standards go up to 10 lbs/gal.	SIP# 01-10 Adopted 9/25/2001 Approved 11/7/2001
COMAR 26.11.19 **Regulation .13-2** Brake Shoe Coating Operations	Applies to brake shoe coating operations establishes coating standards and equipment cleanup standards and requires high transfer efficiency methods for application of coating.	SIP# 99-03 Adopted 8/4/1998 Approved 6/17/1999

Maryland Regulation	Rule Applicability and Requirements	Latest SIP # Date Adopted Date EPA Approved
COMAR 26.11.19 **Regulation .13-3** Control of Volatile Organic Compounds from Structural Steel Coating Operations	Coating standards are established for structural steel operations which can only be exceeded from November to March by 20 %. Minimizes VOC emissions from cleaning solvents.	SIP# 99-01 Adopted 6/5/1998 6/17/1999
COMAR 26.11.19 **Regulation .14** Manufacture of Synthesized Pharmaceutical Products	Establishes standards for the control of emissions from reactor, distillation operation, crystallizer centrifuge and vacuum dryer. Control efficiency of 90 percent or more. Vapor balance systems are also required.	SIP# 91-02 Adopted 3/9/1991 Approved 11/29/1994
COMAR 26.11.19 **Regulation .15** Paint, Resin and Adhesive and Adhesive Application	Applies to honeycomb core installation, footwear manufacturing and spiral tube winding and impregnating. Adhesive and resin standards are established for these operations.	SIP# 93-02 Adopted 1/18/1993 Approved 11/30/1993
COMAR 26.11.19 **Regulation .16** Control of VOC Equipment Leaks	Applies to operations that are subject to the requirements in COMAR 26.11.19 and without specific leak management	SIP# 91-03 Adopted 7/24/1991 Approved 9/7/1994
COMAR 26.11.19 **Regulation .17** Control of Volatile Organic Compounds Emissions from Yeast Manufacturing	Applies to yeast manufacturing installation at a premises that has a potential to emit 25 tons or more per year of VOC. Sets emission standards based on the type of yeast fermenter. Requires continuous monitoring and reporting.	SIP# 05-09 Adopted 8/23/2005 Approved 3/31/2006
COMAR 26.11.19 **Regulation .18** Control of Volatile Organic Compound Emissions from Screen Printing and Digital Imaging.	Applies to screen printing operations on different substrates. The standards vary according to the substrate, type of printing and inks. Digital imaging and control device option is also included in the regulation.	SIP# 02-04 Adopted 5/9/2002 Approved 1/15/2003

Maryland Regulation	Rule Applicability and Requirements	Latest SIP # Date Adopted Date EPA Approved
COMAR 26.11.19 **Regulation .19** Control of Volatile Organic Compound Emissions from Expandable Polystyrene Operations	Applies to expandable polystyrene operations and control efficiency of 85 % is required for emissions from pre-expander or combustion in a fire box.	SIP# 00-09 Adopted 9/11/2000 Approved 5/7/2001
COMAR 26.11.19 **Regulation .20** Control of Landfill Gas Emissions from Municipal Solid Waste Landfill	Applies to existing MSW landfills that have a design capacity equal to or greater than 2,750,000 tons and 3,260,000 cubic yards of MSW. Gas collection and control system is required if the emissions are calculated to be greater than 55 tons per year.	111(d)# 99-09 Adopted 2/5/1998 and 3/2/1999 Approved 9/8/1999
COMAR 26.11.19 **Regulation .21** Control of Volatile Organic Compounds from Bakery Ovens	Applies to an oven that has the potential to emit 25 tons or more. Controls are required based on predictive factors of 80 % or greater. The regulations also have provisions for the review and approval of innovative control technology.	SIP# 95-10 Adopted 6/9/1995 Approved 10/15/1997
COMAR 26.11.19 **Regulation .22** Control of Volatile Organic Compounds from Vinegar Generators	Applies to vinegar generation operation with emissions greater than 20 lbs/day. A scrubber-absorber system is required at 85 % or greater efficiency.	SIP# 98-09 Adopted 7/15/1997 Approved 9/23/1999
COMAR 26.11.19 **Regulation .23** Control of VOC Emissions from Vehicle Refinishing	Applies to vehicle refinishing operations. Establishes coating , cleaning solvent and equipment standards	SIP# 95-03 Adopted 5/1/1995 Approved 8/4/1997
COMAR 26.11.19 **Regulation .24** Control of VOC Emissions from Leather Coating	Applies to a person who owns or operates a leather coating operation at a premises with actual VOC emissions of 20 pounds or more per day. Establishes coating standard and provides alternative means of compliance by controlling 85 % or more emissions.	SIP# 98-08 Adopted 7/15/1997 Approved 9/23/1999

Maryland Regulation	Rule Applicability and Requirements	Latest SIP # Date Adopted Date EPA Approved
COMAR 26.11.19 **Regulation .25** Control of Volatile Organic Compounds From Explosives and Propellant Manufacturing.	Applies to existing equipment at a premise that has a potential to emit 25 tons or more of VOC per year from all explosives and propellant manufacturing equipment. Establishes control efficiency requirement of 85% or more overall.	SIP# 98-18 Adopted 7/15/1997 Approved 1/26/1999
COMAR 26.11.19 **Regulation .26** Control of Volatile Organic Compound Emissions from Reinforced Plastic Manufacturing	Applies to reinforced plastic manufacturing operations if VOC emissions are 20 pounds or more per day. Requires the use of low styrene resin, high efficiency application equipment and low voc cleaning solvents.	SIP# 98-15 Adopted 7/18/1997 Approved 8/19/1999
COMAR 26.11.19 **Regulation .27** Control of Volatile Organic Compound Emissions from Marine Vessel Coating Operations	Applies to marine vessel coating operations. Establishes over 20 coating standards, cleanup and record keeping requirements.	SIP# 98-17 Adopted 9/12/1997 Approved 9/5/2001
COMAR 26.11.19 **Regulation .28** Control of Volatile Organic Compound Emissions from Bread and Snack Food Drying Operations	Applies to bread drying operation that has a potential to emit VOC emissions of 25 tons or more per year. Requires control of 85 % efficiency with the help of a scrubber or an alternative control device.	SIP# 00-11 Adopted 9/11/2000 Approved 5/7/2001
COMAR 26.11.19 **Regulation .29** Control of Volatile Organic Compound Emissions from Distilled Spirits Facilities	Applies to a distilled spirits facility that has a total potential to emit VOCs of 25 tons or more per year. Requires standards to be met for emptying barrels, cleaning of filters and filling of barrels.	SIP# 01-12 Adopted 9/25/2001 Approved 11/7/2001
COMAR 26.11.19 **Regulation .30** Control of Volatile Organic Compound Emissions from Chemical Production and Polytetrafluoroethylene Installations	Applies to an organic chemical production installation or an inorganic chemical production installation with VOC emissions of 20 pounds or more per day. For emissions above 100 lbs/day, 90 % controls are required. Good operating practices apply if the emissions are less than 100 lbs/day.	SIP# 08-02 Adopted 3/17/2008 Pending EPA Action

Maryland Regulation	Rule Applicability and Requirements	Latest SIP # Date Adopted Date EPA Approved
COMAR 26.11.19 **Regulation .31** Control of Volatile Organic Compound Emissions from Medical Device Manufacturing	Applies to medical device manufacturing installations that emit, or have the potential to emit, 100 pounds or more VOC/day that engage in the production of hypodermic products syringes, catheters, blood handling and other medical devices.	SIP# 06-04 Adopted 5/11/2006 Approved 1/11/2007
COMAR 26.11.24 Stage II Vapor Recovery at Gasoline Dispensing Facilities	Applies to facilities with average monthly throughput of 10,000 gallons or more. Requires regular inspection and testing of Stage II systems and includes record keeping and reporting.	SIP# 02-03 Adopted 3/14/2002 Approved 5/7/2003