AIR QUALITY CONTROL ADVISORY COUNCIL

AGENDA

September 9, 2013
8:15 a.m.

Montgomery Park
Aeris Conference Room, 1st Floor
1800 Washington Boulevard
Baltimore, Maryland 21230

8:15 a.m.	**Welcome and Introductions**	**John Quinn, Advisory Council Chair** **Tad Aburn, Air Director**
8:20 a.m.	**Approval of Meeting Minutes**	**John Quinn**

Action Items for Discussion/Approval:

8:30 a.m.	**Metal Parts and Products** **COMAR 26.11.19.08**	**Randy Mosier / Husain Waheed**
9:00 a.m.	**Biomass Fuel Burning Equipment** **COMAR 26.11.09**	**Randy Mosier / Husain Waheed**
10:15 a.m.	**Gasoline and VOC Storage and Handling** **COMAR 26.11.13**	**Randy Mosier / Husain Waheed**
10:40 a.m.	**Low Emission Vehicle Program** **COMAR 26.11.34**	**Tim Shepherd**
11:00 a.m.	**Confirm Next Meeting Dates** **December 9, 2013**	**Members**
11:05 a.m.	**Adjourn**	

Department of the Environment

Facts About...

Amendments to — COMAR 26.11.19.08 Metal Parts and Products

July 31, 2013

PURPOSE OF THESE AMENDMENTS

These amendments adopt the requirements of the EPA's Control Techniques Guidelines (CTG) for metal parts and products. EPA develops CTGs as guidance on control requirements for source categories. States can follow the CTGs or adopt more restrictive standards. MDE proposes to adopt new standards as prescribed by the federal CTG. Application method and work practice requirements will also be adopted into the regulation. These amendments affect coaters of metal parts and products and metal furniture.

BACKGROUND

EPA developed the CTG after reviewing the 1978 CTG, the 1988 NSPS for Surface Coating of Plastic Parts for Business Machines (40 CFR 60 Subpart TTT), the 1994 ACT for Surface Coating of Automotive/Transportation and Business Machine Plastic Parts, National Emission Standards for Hazardous Air Pollutants for Miscellaneous Metal Parts and Products 40 CFR 63 Subpart MMMM, and existing State and local VOC emission reduction approaches. The metal parts and products category includes fabricated metal products, small and large farm machinery, commercial and industrial machinery and equipment, automotive or transportation equipment, interior or exterior automotive parts, construction equipment, motor vehicle accessories, bicycles and sporting goods, toys, recreational vehicles, pleasure craft (recreational boats), extruded aluminum structural components, railroad cars, heavier vehicles, lawn and garden equipment, business machines, laboratory and medical equipment, electronic equipment, metal pipes, and other industrial and household products. The metal parts and products coating category does not include coatings that are a part of other product categories listed under Section 183(e) of the Act for which CTGs have been published or included in other CTGs.

Several different types of application technology are used to apply liquid coatings, and the selection of the application technology can have a significant effect on the amount of coating used and the resulting VOC emissions from the operation. The CTG requires that coatings be applied by coating applicators such as: air atomized spray coating, electrostatic spray coating, high volume/low pressure (HVLP) spray coating, dip coating, flow coating, roll coating,
electrocoating, and autophoretic coating. Powder coatings can be applied through electrostatic spraying or dipping. Application methods do not apply for repair coatings, touch-up coatings, coatings applied to create a textured finish and the robotic application of heavy-duty engines.

Cleaning activities other than surface preparation also occur at miscellaneous metal product surface coating facilities. Additional requirements for cleaning materials and activities are covered under COMAR 26.11.19.02(I). Cleaning materials are used during these activities to remove coating residue or other unwanted materials from equipment related to coating operations, as well as the cleaning of spray guns, transfer lines (e.g., tubing or piping), tanks, and the interior of spray booths. These cleaning materials are typically mixtures of VOC containing solvents.

Affected Sources and Location

These proposed amendments affect coaters of metal furniture and metal parts and products used in farm machinery, industrial machinery, automotive or transportation equipment, structural components, laboratory, medical and electronic equipment, motor vehicle accessories, bicycles and sporting goods, toys, recreational vehicles, pleasure craft (recreational boats), railroad cars, heavier vehicles, lawn and garden equipment and business machines.

Regulation Amendment

COMAR 26.11.19.08 is amended to set VOC coating standards for baked and air drying methods for several coating categories. Application methods for coatings are limited to: Electrostatic application; HVLP spray; Flow coat; Roller coat; Dip coat including electrodeposition; Brush coat; or Other coating application method capable of achieving a transfer efficiency equivalent or better than that achieved by HVLP spraying. The application methods do not apply for several coating operations as specified in the regulation.

Expected Emissions Reduction

The proposed amendments set standards for coatings, application methods and work practices. Emissions of VOCs from metal parts and products are expected to be reduced by 35 percent nationally. The maximum benefit will be provided during the ozone season when VOCs readily combine with NOx to form the pollutant ground level ozone.

Economic Impact on Affected Sources and the Department

The economic impact of these amendments has been estimated by EPA on a national level. Cost effectiveness is approximately $1,800/ton of VOC controlled. There will be minimal economic impact on the Department as inspections and reporting would be required for the compliant materials.

Economic Impact on Small Businesses

EPA has estimated that the economic impact on small business is minimal for reformulated materials on a national level.

Submission to EPA as Revision to Maryland's SIP (or 111(d) Plan, or Title V Program)

Regulation will be submitted to the U.S. EPA for approval as a revision to Maryland's State Implementation Plan.

Are there other State or federal requirements that apply to these sources?

These amendments adopt the requirements of the EPA's CTG for miscellaneous metal and plastic parts coatings EPA, 453/R-08-003, September 2008. There are no other federal reasonably available control technology standards for this category. Multiple facilities are covered under this CTG and each may be subject to additional federal requirements.

Title 26 DEPARTMENT OF THE ENVIRONMENT

Subtitle 11 AIR QUALITY

Chapter 19 Volatile Organic Compounds from Specific Processes

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

.08 Metal [Furniture] *Parts and Products* Coating.

A. **[**Definition**]** *Definitions*. In this regulation, the following terms have the meanings indicated:

(1) "Adhesion promoter" means a thin coating applied to a substrate to:

(a) Promote wetting; and

(b) Form a chemical bond with the subsequently applied material.

(2) "Air-dried coating" means a coating that is cured at a temperature below 90°C (194°F).

(3) "Baked coating" means a coating that is cured at a temperature at or above 90°C (194°F).

(4) "Camouflage coating" means a coating used, principally by the military, to conceal equipment from detection.

(5) "Electric-insulating varnish" means a non-convertible-type coating applied to electric motors, components of electric motors, or power transformers, to provide electrical, mechanical, and environmental protection or resistance.

(6) "Electric-insulating and thermal-conducting coating" means a coating that displays an electrical insulation of at least one thousand (1,000) volts DC per mil on a flat test plate and an average thermal conductivity of at least twenty-seven hundredths British thermal units (0.27 Btu) per hour-foot-degree-Fahrenheit.

(7) "Etching filler" means a coating that contains less than 23 percent solids by weight and at least 1/2-percent acid by weight and is used instead of applying a pretreatment coating followed by a primer.

(8) "Extreme high gloss coating" means any coating which achieves at least 95 percent reflectance on a 60º meter when tested by ASTM Method D 523-89.

(9) "Extreme performance coating" means a coating used on a metal surface where the coated surface is, in its intended use, subject to the following:

(a) Chronic exposure to corrosive, caustic or acidic agents, chemicals, chemical fumes, chemical mixtures or solution;

(b) Repeated exposure to temperatures in excess of 250° F;

(c) A temperature of at least 400°F during normal use; or

(d) Repeated heavy abrasion, including mechanical wear and repeated scrubbing with industrial grade solvents, cleansers or scouring agents.

(10) "Heat-resistant coating" means a coating that must withstand a temperature of at least 400°F during normal use.

(11) "High performance architectural coating" means a coating used to protect architectural subsections and which meets the requirements of the American Architectural Manufacturer's Association publication number AAMA 2604-05 (Voluntary Specification, Performance Requirements and Test Procedures for High Performance Organic Coatings on Aluminum Extrusions and Panels) or 2605-05 (Voluntary Specification, Performance Requirements and Test Procedures for Superior Performing Organic Coatings on Aluminum Extrusions and Panels).

(12) "High temperature coating" means a coating that is certified to withstand a temperature of 1000°F for 24 hours.

(13) "Magnetic data storage disk coating" means a coating used on a metal disk which stores data magnetically.

(14) "Metallic coating" means a coating which contains more than 5 grams of metal particles per liter of coating, as applied.

(15) "Metal furniture coating" (text unchanged)

(16) "Metal Parts and Products Coating".

(a) "Metal parts and products coating" means coating the surface of any metal part or product which will be assembled with other metal, wood, fabric, plastic, or glass parts.

(b) "Metal parts and products coating" does not include metal furniture coatings.

(17) "Military specification coating" means a coating which has a formulation approved by a United States Military Agency for use on military equipment.

(18) "Mold-seal coating" means the initial coating applied to a new mold or a repaired mold to provide a smooth surface and prevent products from sticking to the mold.

(19) "Multi–component coating" means a coating requiring the addition of a separate reactive resin, commonly known as a catalyst or hardener, before application to form an acceptable dry film.

(20) "One-component coating" means a coating that is ready for application as it comes out of its container to form an acceptable dry film, except for the addition of a thinner to reduce the viscosity.

(21) "Pan-backing coating" means a coating applied to the surface of pots, pans, or other cooking implements that are exposed directly to a flame or other heating elements.

(22) "Prefabricated architectural component coating" means coatings applied to metal parts and products which are to be used as an architectural structure.

(23) "Pretreatment coating" means a coating which:

(a) Contains no more than 12 percent solids, by weight;

(b) Contains at least 1/2-percent acid, by weight;

(c) Is used to provide surface etching; and

(d) Is applied directly to metal surfaces to provide corrosion resistance, adhesion of subsequent coatings, and ease of stripping.

(24) "Repair coating" means a coating used to re-coat portions of a previously coated product which has sustained mechanical damage to the coating following normal coating operations.

(25) "Robotic application of heavy-duty engine coatings" means coatings applied to heavy-duty engines by a robotic spray system within a closed paint enclosure at a facility manufacturing heavy-duty engines.

(26) "Safety-indicating coating" means a coating which changes physical characteristics, such as color, to indicate unsafe conditions.

(27) "Silicone release coating" means any coating which contains silicone resin and is intended to prevent food from sticking to metal surfaces such as baking pans.

(28) "Solar–absorbent coating" means a coating which has as its prime purpose the absorption of solar radiation.

(29) "Stencil coating" means an ink or a coating which is rolled or brushed onto a template or stamp in order to add identifying letters and/or numbers to metal parts and products.

(30) "Touch-up coating" means a coating used to cover minor coating imperfections appearing after the main coating operation.

(31) "Vacuum-metalizing coating" means the undercoat applied to the substrate on which the metal is deposited or the overcoat applied directly to the metal film with the help of metalizing/physical vapor deposition (PVD) process whereby metal is vaporized and deposited on a substrate in a vacuum chamber.

B. **[**Emission Standards.**]** *Incorporation by Reference.* In this regulation, the following documents are incorporated by reference:

(a) AAMA 2604-05 Voluntary Specification, Performance Requirements and Test Procedures for High Performance Organic Coatings on Aluminum Extrusions and Panels; and

(b) AAMA 2605-05 Voluntary Specification, Performance Requirements and Test Procedures for Superior Performing Organic Coatings on Aluminum Extrusions and Panels.

C. Applicability and Exemptions.

(1) This regulation applies to a person who owns or operates:

(a) A metal furniture coating installation; or

(b) A metal parts and products coating operation at a premises where the total VOC emissions from all metal parts and products surface coating operations (including emissions from related cleaning activities), exceed 15 pounds (6.8 kilograms) per day.

(2) This regulation does not apply to:

(a) Automotive and light duty truck coating subject to COMAR 26.11.19.03;

(b) Can coating subject to COMAR 26.11.19.04;

(c) Coil coating subject to COMAR 26.11.19.05;

(d) Large appliance coating subject to COMAR 26.11.19.06;

(e) Paper, Fabric, Film, and Foil coating subject to COMAR 26.11.19.07;

(f) Plastic Parts and Business Machines coatings subject to COMAR 26.11.19.07-2;

(g) Cold and Vapor Degreasing subject to COMAR 26.11.19.09;

(h) Industrial Solvent Cleaning Operations Other Than Cold and Vapor Degreasing subject to COMAR 26.11.19.09-1;

(i) Drum and pail coating subject to COMAR 26.11.19.13;

(j) Aerospace coating subject to COMAR 26.11.19.13-1;

(k) Brake shoe coating subject to COMAR 26.11.19.13-2;

(l) Structural steel coating subject to COMAR 26.11.19.13-3;

(m) Refinishing of motor vehicles subject to COMAR 26.11.19.23;

(n) Marine vessel coating subject to COMAR 26.11.19.27; and

(o) Pleasure craft coating subject to COMAR 26.11.19.27-1.

(3) This regulation does not apply to repair or touch-up coatings when applied using a hand-held, pressurized, non-refillable container which expels coatings from the container in a finely divided spray when a valve on the container is depressed.

(4) The emission standards in §D and application methods of §E of this regulation do not apply to application of the following coatings to the surface of any metal part or product which will be assembled with other metal, wood, fabric, plastic, or glass parts:

(a) Stencil coatings;

(b) Safety-indicating coatings;

(c) Magnetic data storage disk coatings; and

(d) Electric-insulating and thermal-conducting coatings.

(5) The emission standards in §D and application methods of §E of this regulation do not apply to plastic extruded onto metal to form a coating on any metal part or product which will be assembled with other metal, wood, fabric, plastic, or glass parts.

D. Emission Standards. **[**A person may not cause or permit the discharge into the atmosphere of any VOC from a metal furniture coating installation in excess of 3 pounds per gallon of coating applied (minus water) (0.36 kilograms/liter of coating applied (minus water)).**]**

(1) A person subject to this regulation may not exceed the applicable VOC emission standards of the following table when applying a metal furniture coating:

Coating Type	*Baked*		*Air-Dried*	
	Lbs/gal	*Kg/l*	*Lbs/gal*	*Kg/l*
General, One-Component	*2.3*	*0.275*	*2.3*	*0.275*
General, Multi-Component	*2.3*	*0.275*	*2.8*	*0.340*
Extreme Performance	*3.0*	*0.360*	*3.5*	*0.420*
Metallic	*3.5*	*0.420*	*3.5*	*0.420*
Pretreatment	*3.5*	*0.420*	*3.5*	*0.420*
Solar Absorbent	*3.0*	*0.360*	*3.5*	*0.420*
Extreme High Gloss	*3.0*	*0.360*	*2.8*	*0.340*

(2) A person subject to this regulation may not exceed the applicable VOC emission standards of the following table when applying a metal parts and products coating:

Coating Type	*Baked*		*Air Dried*	
	Lbs/gal	*Kg/l*	*Lbs/gal*	*Kg/l*
General, One Component	*2.3*	*0.275*	*2.8*	*0.340*
General, Multi-Component	*2.3*	*0.275*	*2.8*	*0.340*
Adhesion Promoter	*4.0*	*0.479*	*4.0*	*0.479*
Prefabricated Architectural One Component and Multi-Component	*2.3*	*0.280*	*3.5*	*0.420*
Military Specification	*2.3*	*0.280*	*2.8*	*0.340*
Extreme high-gloss; Extreme performance; Heat-resistant; High Performance Architectural; Repair coating; Solar Absorbent; or Touch up coating	*3.0*	*0.360*	*3.5*	*0.420*
Camouflage, Electric-Insulating Varnish; Etching Filler; High Temperature; Metallic; Mold-Seal; Pan Backing; Pretreatment; Silicone Release and Vacuum-Metalizing	*3.5*	*0.420*	*3.5*	*0.420*

E. Application Methods.

(1) Except as provided in §E(2), a person subject to the requirements of this regulation shall use the following application methods:

(a) Electrostatic application;

(b) HVLP spray;

(c) Flow coat;

(d) Roller coat;

(e) Dip coat including electrodeposition;

(f) Brush coat; or

(g) A coating application method capable of achieving a transfer efficiency equivalent to or better than the efficiency achieved by HVLP spraying.

(2) The application requirements of §E(1) do not apply to the following coating operations:

(a) Repair coatings;

(b) Touch-up coatings;

(c) Coatings applied to create a textured finish; or

(d) Robotic application of heavy-duty engine coatings.

Department of the Environment

Facts About...

Amendments to COMAR 26.11.09 for Biomass Fuel Burning Equipment Standards

Date 08-26-13

Purpose of Amendments and New Regulation

The primary purpose of amendments and new regulation are to:

1. Incorporate the definition of biomass into Regulation .01;
2. Establish that the provisions from regulations .04 Prohibitions of Certain New Fuel-Burning Equipment, .06 Control of Particulate Matter, and .07 Control of Sulfur Oxides from Fuel-Burning Equipment do not apply to fuel-burning equipment installed after March 1, 2014 that burns only biomass fuels;
3. Establish new regulation .12 Standards for Biomass Fuel-Burning Equipment Equal to or Greater Than 350,000 Btu/hr which sets NOx and PM standards and requirements for biomass equipment where federal standards are not established; and
4. Amend incorrect references from regulations .09 and .10.

Submission to EPA as Revision to Maryland's SIP (or 111(d) Plan, or Title V Program)

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

Background

There is significant potential and interest in biomass for energy recovery and the Department is taking action to enhance and facilitate the application of renewable and energy efficient technologies and practices by establishing standards and procedures. There are existing federal regulations that apply to the same fuel-burning categories that Maryland's proposed regulation will cover. Where Federal regulations are more stringent than the Maryland regulations, the federal standards apply.

New technologies and environmental initiatives have recently increased the use of wood, and other farming by-products, as a fuel to be burned to provide heat and power. To incorporate this new fuel category, biomass, the Department has proposed a new regulation COMAR 26.11.09.12 and regulation amendments to other pertinent sections of COMAR 26.11.09.

Biomass materials include wood residue and wood products, as well as animal manure, including litter and other bedding materials and vegetative agricultural and silvicultural materials. Because certain components of biomass based fuel could be considered waste,

EPA has spent extensive efforts to define the application of biomass any other 'non-traditional fuels'. The proposed Maryland definition of biomass incorporates the federal requirements, for use of the legitimacy criteria procedures when required, to determine if a material is classified as a solid waste or not. Non-hazardous secondary materials that have been determined not to be solid waste pursuant to 40 CFR 241.3(b)(1), and based on the legitimacy criteria under 40 CFR 241.3(d)(1) can be used in fuel-burning equipment.

Biomass fuel, where readily and cost effectively available as a result of energy crop harvesting, sustainable forestry and poultry litter management practices can be used in fuel-burning equipment for energy recovery while meeting applicable standards and also reduce the amount of phosphorous and nitrogen entering the Chesapeake Bay and its tributaries.

Maryland produces approximately 500-600 million chickens a year, as a result, it is projected that close to 600-700 million pounds of poultry litter is produced. The industry is one of the state's most productive forms of agriculture, one of its largest employers, and has seen steady growth with increasing demand for low cost chicken and contributes close to $700 million to the Maryland economy. The application of technology that meets Maximum Achievable Control Technology (MACT)/Generally Available Control Technology (GACT)/Best Available Control Technology (BACT) standards to recover energy from poultry litter and other biomass materials would be useful to utilize renewable fuels and provide broad benefits to the environment.

Federal Maximum Achievable Control Technology (MACT) standards for major sources were finalized on January 31, 2013 under 40 CFR 63 Subpart DDDDD National Emission Standards for Hazardous Air Pollutants for Major Sources: Industrial, Commercial, and Institutional Boilers and Process Heaters. The amendments to COMAR 26.11.09 and standards for biomass fuel-burning equipment will reduce the permit review and approval process by approximately 60 days and at the same time apply standards to size categories of fuel-burning equipment that do not have emission standards under MACT and GACT standards.

MACT standards for industrial, commercial and institutional boilers apply to complex, non-homogeneous biomass fuels and equipment differentiated by design and heat input capacity. The MACT standards are for hazardous air pollutants (HAPs). EPA finalized 40 CFR Part 63 Subpart JJJJJJ, National Emission Standards for Hazardous Air Pollutants for Area Sources: Industrial, Commercial, and Institutional Boilers on February 1, 2013. GACT standards are applicable to boilers less than 10 MMBtu/hr heat input. Under GACT, optimization and best operating practices are required. The technology developments for different types of boilers and performance results reflected in the MACT standards have a significant impact on the development of NOx standards for different size boilers and on PM standards for small size boilers.

MDE is proposing to amend the existing regulations in COMAR 26.11.09 that would be applicable to biomass fuel-burning equipment. New biomass fuel-burning equipment would be subject to standards based on MACT/GACT /BACT analysis. The amendments

and new regulation have been developed to facilitate the permitting and compliance process and also apply standards to size category fuel-burning equipment in the absence of emission standards under MACT/GACT.

Sources Affected and Location

These amendments and new regulation affect new biomass fuel-burning equipment in Maryland.

Requirements

Summary of Federal MACT/GACT Standards, Amendments and Related, Proposed Maryland Standards

Federal MACT –Applicability, Standards and Monitoring Requirements

40 CFR 63 Subpart DDDDD (5D) –Maximum Achievable Control Technology Standards (MACT) for Boilers and Process Heaters –standards for Major Sources
1. HAPS regulated: a) Fuel based emission standards PM and HG; b) Combustion based emissions of CO.
2. Compliance schedule for source categories: January 31, 2016 for existing sources; and January 31, 2013 or upon startup for new sources.
3. New/existing sources with less than 10 MMBtu/hr category boilers are subject to biennial tune – up requirement.
4. For greater than 10 MMBtu/hr new and existing – emission standards for CO, PM and Hg are applicable.
5. Existing boilers or heaters are subject to work practice standards and energy assessment requirement.
6. Operating and monitoring parameters are based on performance tests and include operating parameters for CO and control devices such as wet scrubber, ESP and bag house with leak detection system.

Federal GACT - 40 CFR Part 63 Subpart JJJJJJ, National Emission Standards for Hazardous Air Pollutants for Area Sources: Industrial, Commercial, and Institutional Boilers

1. New biomass boilers greater than 10MMBtu/hr have to meet PM standards and implement a biennial tune-up program.
2. New biomass boilers less than 10 MMBtu/hr are required to implement a biennial tune-up program.
3. Existing biomass boilers are required to implement a biennial tune-up program.
4. Existing biomass boilers greater than 10 MMBtu/hr heat input are required to conduct energy assessment.

Tune-Up Procedures

1. Inspect the flame pattern and burner. Adjust, test, clean, modify and replace as necessary under manufacturer's specifications.

2. Inspect the system controlling the air-to-fuel ratio, calibrate and assure proper operation.

3. Optimize total CO emissions consistent with manufacturer's specification.

4. Measure CO concentrations in the flue gas stream, both before and after the adjustments are made. A portable analyzer may be used.

Energy Assessment

1. Inspection and inventory of energy consuming systems.
2. Analysis of engineering and architectural plans.
3. A list of energy management and conservation measures.
4. Report with recommendations for energy efficiency.
5. List of energy savings.

Startup, Shutdown and Malfunction Requirements

1. Meet work practice standard by following manufacturer recommended procedures to minimize startup and shutdown procedures.
2. For exceedance of standard due to malfunction, records must be kept of malfunction and corrective actions.

Recordkeeping and Reporting

1. Monitor and record hours of operation for major sources.
2. For tune-ups, information on dates, results, procedures and manufacturer's specification.
3. The type and amount of fuel used over the 12 months prior to the biennial tune-up of the boiler.
4. For each boiler subject to an emission limit records of monthly fuel use by each boiler, including the type(s) of fuel and amount(s) used must be kept.
5. Electronic copy of reports of required performance tests using the Electronic Reporting Tool via EPA's Central Data Exchange.
6. For area and major sources notification of compliance status, submit statement of completed energy assessment.
7. For operating units that combust non-hazardous secondary materials that have been determined not to be solid waste pursuant to § 241.3(b)(1) a record which documents how the secondary material meets each of the legitimacy criteria under § 241.3(d)(1) must be kept.

COMAR 26.11.09 Amendments

COMAR 26.11.09.04 prohibitions will not apply to fuel-burning equipment installed after March 1, 2014 that burns only biomass fuels.

COMAR 26.11.09.06 shall not apply to fuel-burning equipment installed after March 1, 2014 that burns only biomass fuels; however, the particulate matter requirements of Regulation .12 of this Chapter will apply to new biomass units.

COMAR 26.11.09.07 shall not apply to fuel-burning equipment installed after March 1, 2014 that burns only biomass fuels

COMAR 26.11.09.12 Standards for Biomass Fuel-Burning Equipment Equal to or Greater Than 350,000 Btu/hr.

1. Standards and requirements are applicable to owners and operators of biomass fuel-burning equipment equal to or greater than 350,000 Btu/hr heat input capacity.
2. Federal requirements under 40 CFR 63 Subparts DDDDD and JJJJJJ, as amended, are applicable.
3. Emission Standards for Biomass Fuel-Burning Equipment Greater Than or Equal to 10 MMBtu/hr Heat Input Capacity. Applicable standards
    a. A particulate matter emission standard of 0.07 lb/MMBtu heat input if the total heat input capacity is less than 30 MMBtu/hr;
    b. A particulate matter emission standard of 0.03 lb/MMBtu heat input if the total heat input capacity is equal to or greater than 30 MMBtu/hr;
    c. A NOx emission standard of 0.30 lb/MMBtu heat input, if the heat input capacity is less than or equal to 250 MMBtu/hr;
    d. A NOx emission standard of 0.25 lb/MMBtu heat input, if the heat input capacity is greater than 250 MMBtu/hr; and
    e. An initial and biennial tune-ups are conducted.
4. Requirements for Biomass Fuel-Burning Equipment Greater Than 1.5 MMBtu/hr and Less Than 10 MMBtu/hr Heat Input Capacity. Applicable standards:
    a. A particulate matter emission standard of 0.23 lb/MMBtu heat input in Areas I, II, V and VI;
    b. A particulate matter emission standard of 0.1 lb/MMBtu heat input in Areas III and IV;
    c. A NOx emission standard of 0.30 lb/MMBtu heat input; and
    d. An initial and biennial tune-ups are conducted.
5. Requirements for Biomass Fuel-Burning Equipment Less Than or Equal to 1.5 MMBtu/hr and Greater than 350,000Btu/hr Heat Input Capacity. Applicable standards:
    a. A particulate matter emission standard of 0.35 lb/MMBtu heat input in Areas I, II, V and VI;
    b. A particulate matter emission standard of 0.1 lb/MMBtu heat input in Areas III and IV;
    c. A NOx emission standard of 0.30 lb/MMBtu heat input; and
    d. An initial and biennial tune-ups are conducted.
6. Biomass fuel-burning equipment installed prior to March 1, 2014:
    a. An initial and biennial tune-ups are required to be conducted; and
    b. All the standards and requirements of must be complied with.

7. Fuel-burning equipment operation in accordance with the design and maintenance specifications of the manufacturer in order to meet and maintain compliance with the applicable emission standards and performance requirements.
8. Startup and Shutdown Requirements. The boiler's startup and shutdown periods are required to be minimized following the:
    a. Manufacturer's recommended procedures, if available; or
    b. Recommended procedures for a unit of similar design for which manufacturer's recommended procedures are available if manufacturer's recommended procedures for the actual unit are not available.
9. Compliance.
    a. Testing following 40 CFR Part 60, Appendix A, as amended.
    b. Sources subject to §§D and E demonstrate compliance by providing certification, on a form provided by the Department, from the manufacturer that the fuel-burning equipment is designed and tested to meet the applicable particulate matter and NOx standards including a copy of test results with EPA approved test methods on fuel-burning equipment in the same model line as the new fuel-burning equipment.
    c. The particulate matter emission standards of §§C, D or E of this regulation and the requirements of 40 CFR 63 Subparts DDDDD and JJJJJJ, as amended, are required to be complied with by:
        (a) Demonstrating continuous compliance with the work practice and management practice standards as specified in 40 CFR 63; and
        (b) Complying with the monitoring, installation, operation, and maintenance requirements as specified in 40 CFR 63.
    d. Fuel-burning equipment with a heat-input capacity greater than or equal to 100 MMBtu/hr and less than 250 MMBtu/hr demonstrate compliance with §B(2) of Regulation .08.
    e. Fuel-burning equipment with a heat-input capacity greater than or equal to 250 MMBtu/hr demonstrate compliance by installing, operating, calibrating, and maintaining a certified NOx CEM in accordance with §C(3) of Regulation .08.
10 Record Keeping and Reporting. The following requirements are applicable:
    a. The recordkeeping and reporting requirements of 40 CFR 63 Subparts DDDDD and JJJJJJ, as amended.
    b. For the particulate matter emission standards of §§C, D or E of this regulation and for biomass fuel-burning equipment subject to the requirements of 40 CFR 63 Subparts DDDDD and JJJJJJ, as amended, the notification, reporting, and recordkeeping requirements of 40 CFR 63.
    c. For the NOx emission standards of §C of this regulation and biomass fuel-burning equipment subject to the requirements of 40 CFR 63 Subparts DDDDD and JJJJJJ, as amended, the reporting requirements of §K of Regulation .08 of this chapter.
    d. For the emission standards of §§C, D or E of this regulation and biomass fuel-burning equipment not subject to the requirements of 40 CFR 63 Subparts DDDDD and JJJJJJ keep records for each boiler that identify:
        (i) The date of tune-up operations;

(ii) The procedures followed for tune-up;
(iii) The manufacturer's specifications to which the boiler was tuned;
(iv) The occurrence and duration of each malfunction of the boiler, or of the associated air pollution control, or monitoring equipment;
(v) Actions taken during periods of malfunction to minimize emissions including corrective actions to restore the malfunctioning boiler, air pollution control, or monitoring equipment to its normal or usual manner of operation;

e. Maintain records on site for not less than 3 years, and make these records available to the Department upon request.

Expected Emissions Reductions

There are no emission reductions as a result of this action. New Regulation .12 will require MACT/GACT/BACT standards to be established for biomass fuel-burning equipment. This action, however, will have broad environmental benefits and reduce the amount of phosphorous and nitrogen entering the Chesapeake Bay and its tributaries.

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

As a result of the proposed amendments and new regulations, businesses in Maryland would accrue a potential net economic benefit over the lifetime of the unit. Biomass fuel, where readily and cost effectively available as a result of energy crop harvesting, sustainable forestry and poultry litter management practices can be used in fuel-burning equipment for energy recovery while meeting applicable standards and also reduce the amount of phosphorous and nitrogen entering the Chesapeake Bay and its tributaries.

<u>MDE</u>
The amendments to COMAR 26.11.09 and standards for biomass fuel-burning equipment will positively effect the Department in that the amendments will reduce the permit review and approval process by approximately 60 days.

<u>Poultry Industry</u>
Maryland produces approximately 500-600 million chickens a year, as a result, it is projected that close to 600-700 million pounds of poultry litter is produced. The industry is one of the state's most productive forms of agriculture, one of its largest employers, and has seen steady growth with increasing demand for low cost chicken and contributes close to $700 million to the Maryland economy. The application of technology that meets MACT/GACT/BACT standards to recover energy from poultry litter and other biomass materials would be useful to utilize renewable fuels and provide broad benefits to the environment. On a per dollar basis, approximately 30,000 Btu can be delivered from oil. Since poultry litter that is generated on site has minimal to no cost associated with it, close to the range of 80-90 % savings on fuel and energy costs can be realized from the utilization of poultry litter on an annual basis.

Wood Industry

Wood and forest products constitute approximately $4 billion a year industry in Maryland. Close to 40% of landmass in Maryland is covered with trees that contribute to the wood products. Maryland grows more wood than it cuts by shifting from being a passive custodian of forests to an active participant in economically utilizing a rejuvenating resource. Approximately 30 percent more wood is grown in the State than is cut, pointing to the potential reserve in renewable resource and economy. At current utilization level of this renewable resource, wood and forest products are the biggest industry in Western Maryland and No. 2 on the Eastern Shore behind poultry. Statewide, wood and forest industry supports some 10,000 jobs.

Wood fuel costs have a direct link to transportation costs. Taking into account an average range of wood costs and the lower efficiency of wood fuel-burning equipment, 40,000 Btu could be delivered per dollar. Savings realized from burning wood on an annual basis could be in the range of 30-40%.

Cost of Control and Fuel-Burning Equipment

Cost projections are based on published reports, industry and vendor information, on specific project costs, EPA reports or control device fact sheets, or actual BACT analysis information. Different options exist for boiler designers and manufacturers including the application of low cost advanced optimization technologies to reduce emissions and meet the standards. If the combination of the type of biomass fuel and boiler design needs further controls, then the following technologies and costs have to be considered.

1. Cyclone $10,000
2. Multi-Cyclone $15-25,000
3. Reeltration System $65-97,000
4. ESP
   a. 10 MMBtu approx 3500 acfm ----$97,000.00
   b. 15 MMBtu approx 7000 acfm ----$160,000.00
   c. 20 MMBtu approx 11000 acfm ---$220,000.00
   d. 25 MMBtu approx 14500 acfm ---$290,000.00
   e. 30 MMBtu approx 22500 acfm ---$340,000.00

Capital cost for fuel-burning equipment in the size range 1-100 MMBtu/hr heat input range that can meet the standards of the regulation are provided below:

Equipment/ Boiler Size MMBtu/hr	Capital Cost	Control Cost Range
1) 1	$175,000	$10,000
2) 2	$350,000-$410,000	$10,000-15,000 Single cyclone
3) 10	$650,000-$725,000	$15,000-25,000 Multi cyclone
4) 20	$1-1.25 Million	ESP $220,000-300,000
5) 30	$ 4-6 Million	ESP $ 450,000-$550,000
6) 100	$12-20 Million	ESP $1.5- 2.0 Million

Economic Impact on Small Businesses

As a result of the proposed amendments and new regulations, small businesses in Maryland would accrue a potential net economic benefit over the lifetime of the unit. Biomass fuel, where readily and cost effectively available as a result of energy crop harvesting, sustainable forestry and poultry litter management practices can be used in fuel-burning equipment for energy recovery while meeting applicable standards and also reduce the amount of phosphorous and nitrogen entering the Chesapeake Bay and its tributaries.

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

Yes. Specifically, the NSPS 40 CFR 60 Subpart D, Db, Dc as well as NESHAP 40 CFR 63 Subpart DDDDD and JJJJJJ may apply to a proposed source in Maryland.

EPA's MACT established PM emission limits for biomass and other fuel-burning equipment greater than 10 MMBtu/hr heat input. The MACT also addresses PM as a surrogate for metals under hazardous air pollutants.

Where Federal regulations are more stringent than the Maryland regulations, the federal standards apply. Maryland proposed regulations establish PM standards for sources less

than 10 MMBtu/hr heat input, where federal regulations are limited to optimization practices as established under GACT which is less restrictive for this size category. Maryland's proposed regulations also establish NOx standards for all biomass fuel-burning equipment.

Title 26
DEPARTMENT OF THE ENVIRONMENT

Subtitle 11 AIR QUALITY

Chapter 09 Control of Fuel-Burning Equipment, Stationary Internal Combustion Engines, and Certain Fuel-Burning Installations

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. In this chapter, the following terms have the meanings indicated.

B. Terms Defined.

(1) (text unchanged)

(1-1) "Biomass"

(a) Means solid organic material that can be combusted for use as fuel including the following:

(i) Wood residue and wood products (e.g., trees, tree stumps, tree limbs, bark, lumber, sawdust, sander dust, chips, scraps, slabs, millings, and shavings);

(ii) Animal manure, including litter and other bedding materials;

(iii) Vegetative agricultural and silvicultural materials, such as logging residues (slash), nut and grain hulls and chaff (e.g., almond, walnut, peanut, rice, and wheat), bagasse, orchard prunings, corn stalks, coffee bean hulls and ground; and

(iv) Any solid organic material that has been approved by the Department, on a case-by-case basis, utilizing the criteria established by EPA and set forth in 40 C.F.R.241.3, as amended.

(b) This definition of biomass is not intended to suggest that these materials are or are not solid waste.

[(1-1)**]** *(1-2)* (text unchanged)

(2) – (3) (text unchanged)

(4) "Fuel" means:

(a) Coal or any other fossil fuel **[**and wood or wood products; and**];**

(b) Waste combustible fluid or used oil that has been approved by the Department to be burned as a fuel in accordance with Regulation .10 of this chapter; *and*

(c) Biomass as defined in this regulation, or approved by the Department.

(5) – (19) (text unchanged)

.02 — .03 (text unchanged)

.04 Prohibition of Certain New Fuel-Burning Equipment.

A. – B. (text unchanged)

C. Exceptions.

(1) *Fuel-Burning Equipment on Ships and Biomass Fuel-Burning Equipment.*

(a) **[**Fuel-Burning Equipment on Ships.**]** New fuel-burning equipment on ships is exempt from §§A(1) and B(1) of this regulation.

(b) The provisions of §§A and B of this regulation do not apply to fuel-burning equipment installed after March 1, 2014 that burns only biomass fuels.

(2) – (6) (text unchanged)

.05 (text unchanged)

.06 Control of Particulate Matter.

A. – C. (text unchanged)

D. *Small Wood Boilers and Biomass Fuel-Burning Equipment.*

(1) Small wood boilers are *subject to particulate matter requirements of Regulation .11 of this Chapter and* exempt from the provisions of §§A and B of this regulation.

(2) The provisions of §§A and B of this regulation shall not apply to fuel-burning equipment installed after March 1, 2014 that burns only biomass fuels; however, the particulate matter requirements of Regulation .12 of this Chapter apply.

.07 Control of Sulfur Oxides From Fuel-Burning Equipment.

A. (text unchanged)

B. Exceptions.

(1) – (4) (text unchanged)

(5) The provisions of §§A(1)(a) and A(2)(a) of this regulation shall not apply to fuel-burning equipment installed after March 1, 2014 that burns only biomass fuels.

C. (text unchanged)

.08 (text unchanged)

.09 Tables and Diagrams.

(Table 1 unchanged)

(a) Construction of residual oil fired units of less than 13 million Btu (13.7 gigajoules) per hour prohibited (see Regulation **[**.09A(1) and B(1))**]** *.04).*

(b) (text unchanged)

(c) (text unchanged)

See Figures 1 & 2. (Figures unchanged)

Notes: (Notes unchanged)

.10 Requirements to Burn Used Oil and Waste Combustible Fluid as Fuel.

A. General Requirements.

(1) — (2) (text unchanged)

(3) A person who is burning used oil or WCF under a current written approval from the Department may continue to burn the approved material if:

(a) The person demonstrates that any WCF being burned satisfies the definition of that term in Regulation .01B**[**(23)**]** of this chapter;

(b) — (d) (text unchanged)

(4) — (7) (text unchanged)

B. — D. (text unchanged)

.11 (text unchanged)

.12 Standards for Biomass Fuel-Burning Equipment Equal to or Greater Than 350,000 Btu/hr.

A. Applicability. The requirements of this regulation apply to a person who owns or operates biomass fuel-burning equipment equal to or greater than 350,000 Btu/hr heat input capacity.

B. Federal Requirements. The requirements of 40 CFR 63 Subparts DDDDD and JJJJJJ, as amended, are applicable.

C. Requirements for Biomass Fuel-Burning Equipment Greater Than or Equal to 10 MMBtu/hr Heat Input Capacity. A person subject to the requirements of this regulation may not install or operate new biomass fuel-burning equipment, unless the following standards and requirements are met:

(1) A particulate matter emission standard of 0.07 lb/MMBtu heat input if the total heat input capacity is less than 30 MMBtu/hr;

(2) A particulate matter emission standard of 0.03 lb/MMBtu heat input if the total heat input capacity is equal to or greater than 30 MMBtu/hr;

(3) A NOx emission standard of 0.30 lb/MMBtu heat input, if the heat input capacity is less than or equal to 250 MMBtu/hr;

(4) A NOx emission standard of 0.25 lb/MMBtu heat input, if the heat input capacity is greater than 250 MMBtu/hr; and

(5) An initial and biennial tune-ups are conducted.

D. Requirements for Biomass Fuel-Burning Equipment Greater Than 1.5 MMBtu/hr and Less Than 10 MMBtu/hr Heat Input Capacity. A person subject to the requirements of this regulation may not install or operate new biomass fuel-burning equipment unless the following standards and requirements are met:

(1) A particulate matter emission standard of 0.23 lb/MMBtu heat input in Areas I, II, V and VI;

(2) A particulate matter emission standard of 0.1 lb/MMBtu heat input in Areas III and IV;

(3) A NOx emission standard of 0.30 lb/MMBtu heat input; and

(4) An initial and biennial tune-ups are conducted.

E. Requirements for Biomass Fuel-Burning Equipment Less Than or Equal to 1.5 MMBtu/hr and Greater than 350,000Btu/hr Heat Input Capacity. A person subject to the requirements of this regulation may not install or operate

new biomass fired fuel-burning equipment that is less than equal to 1.5 MMBtu/hr heat input and greater than 350,000 Btu/hr heat input unless the following standards are met:

(1) A particulate matter emission standard of 0.35 lb/MMBtu heat input in Areas I, II, V and VI;

(2) A particulate matter emission standard of 0.1 lb/MMBtu heat input in Areas III and IV;

(3) A NOx emission standard of 0.30 lb/MMBtu heat input; and

(4) An initial and biennial tune-ups are conducted.

F. A person subject to the requirements of this regulation may not operate biomass fuel-burning equipment installed prior to March 1, 2014 unless:

(1) An initial and biennial tune-ups are conducted; and

(2) All the standards and requirements of §.03 and §§ .05 — .09 of this chapter are met.

G. A person subject to the requirements of this regulation shall operate the fuel-burning equipment in accordance with the design and maintenance specifications of the manufacturer in order to meet and maintain compliance with the applicable emission standards and performance requirements.

H. Startup and Shutdown Requirements. A person subject to the requirements of §§C, D and E shall minimize the boiler's startup and shutdown periods following the:

(1) Manufacturer's recommended procedures, if available; or

(2) Recommended procedures for a unit of similar design for which manufacturer's recommended procedures are available if manufacturer's recommended procedures for the actual unit are not available.

I. Compliance. A person subject to the requirements of:

(1) §C shall demonstrate compliance with the emissions standards by following 40 CFR Part 60, Appendix A, as amended.

(2) §§D and E shall demonstrate compliance by providing certification, on a form provided by the Department, from the manufacturer that the fuel-burning equipment is designed and tested to meet the applicable particulate matter and NOx standards including a copy of test results with EPA approved test methods on fuel-burning equipment in the same model line as the new fuel-burning equipment.

(3) The particulate matter emission standards of §§C, D or E of this regulation who owns or operates biomass fuel-burning equipment subject to the requirements of 40 CFR 63 Subparts DDDDD and JJJJJJ, as amended, shall:

(a) Demonstrate continuous compliance with the work practice and management practice standards as specified in 40 CFR 63; and

(b) Comply with the monitoring, installation, operation, and maintenance requirements as specified in 40 CFR 63.

(4) The NOx emission standards of §C of this regulation and who owns or operates biomass fuel-burning equipment subject to the requirements of 40 CFR 63 Subparts DDDDD and JJJJJJ, as amended, shall meet the following requirements:

(a) For fuel-burning equipment with a heat-input capacity greater than or equal to 100 MMBtu/hr and less than 250 MMBtu/hr, demonstrate compliance with the NOx emission standards of §C of this regulation in accordance with §B(2) of Regulation .08 of this chapter; and

(b) For fuel-burning equipment with a heat-input capacity greater than or equal to 250 MMBtu/hr subject to the requirements of §C shall demonstrate compliance with the NOx emission standards of regulation .12C in accordance with §B(2) of Regulation .08 of this chapter by installing, operating, calibrating, and maintaining a certified NOx CEM in accordance with §C(3) of Regulation .08 of this chapter.

J. Reporting and Recordkeeping Requirements.

(1) A person subject to the particulate matter emission standards of §§C, D or E of this regulation who owns or operates biomass fuel-burning equipment subject to the requirements of 40 CFR 63 Subparts DDDDD and JJJJJJ, as amended, shall comply with the notification, reporting, and recordkeeping requirements of 40 CFR 63.

(2) A person subject to the NOx emission standards of §C of this regulation and who owns or operates biomass fuel-burning equipment subject to the requirements of 40 CFR 63 Subparts DDDDD and JJJJJJ, as amended, shall comply with the reporting requirements of §K of Regulation .08 of this chapter.

(3) A person subject to the to the emission standards of §§C, D or E of this regulation who owns or operates biomass fuel-burning equipment not subject to the requirements of 40 CFR 63 Subparts DDDDD and JJJJJJ shall:

(a) Keep records for each boiler that identify:

(i) The date of tune-up operations;

(ii) The procedures followed for tune-up;

(iii) The manufacturer's specifications to which the boiler was tuned;

(iv) The occurrence and duration of each malfunction of the boiler, or of the associated air pollution control, or monitoring equipment;

(v) Actions taken during periods of malfunction to minimize emissions including corrective actions to restore the malfunctioning boiler, air pollution control, or monitoring equipment to its normal or usual manner of operation;

(b) Maintain records on site for not less than 3 years, and make these records available to the Department upon request.

Department of the Environment

Facts About...

Amendments to COMAR 26.11.13.04 Control of Gasoline and Volatile Organic Compound Storage and Handling

8/20/13

Purpose of New Regulation/Amendment

The primary purpose of this amendment is to provide an alternative equivalent vapor recovery method for the transfer of high vapor pressure materials and to amend incorrect references from regulations .04 and .05.

Submission to EPA as Revision to Maryland's SIP (or 111(d) Plan, or Title V Program)

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

Background

COMAR 26.11.13.04 establishes requirements for the use of automatic disconnections for the transfer of gasoline and VOCs with a total vapor pressure greater than 1.5 psia. Automatic disconnections are typically referred to in the industry as dry disconnects. Affected sources in Maryland do use dry disconnects on transfer equipment used for the handling of gasoline and fuel grade ethanol products (which have vapor pressures of greater than 1.5 psia). These products are typically transported in tank trucks meeting the U.S. Department of Transportation (US DOT) specifications as a MC306 or MC406 type cargo tank. The fuel industry has adopted the use of dry disconnect fittings for loading and unloading hose applications. Affected sources are limited to using dry disconnects on these products to accommodate the tank truck connection fittings on the MC306/406 cargo tanks.

The handling of other flammable liquids in tank trucks is not so clearly defined for the loading connections. These products are handled in US DOT MC407 cargo tanks. The motor carrier and chemical industries do not have an industry standard for the hose connections and trailer fittings beyond regulated safety venting devices. Sources that transfer fuels and liquids do not operate the motor carrier fleets or direct or coordinate the tank truck set up or maintenance. As such affected sources are required to have a high degree of flexibility as to the product and vapor return connections necessary to safely transfer the ordered product. The daily variation for tank truck connection type and size make the development of a standard transfer hose connection challenging. Many motor carriers use a variation of a cam lock “quick connector” type fitting to allow them to meet the end receiver transfer connections. Affected sources in Maryland maintain an inventory of the most commonly used connections to meet daily operating conditions.

Affected sources in Maryland typically only transfer one product with a vapor pressure greater than 1.5 psia at a Baltimore facility. This product is hexane, for which typically approximately 220 thousand gallons are transferred annually. This product is transferred using vapor balance, which has an estimated combined capture and control efficiency of 98.7 percent using EPA AP-42 factors. The total volatile organic compounds (VOC) emissions associated with this transfer are estimated as approximately 6 pounds.

This transfer quantity equates to approximately 8 tank cars of material, and approximately 30 truckloads of material. The tank trucks that are used to transport this material are not equipped with fittings that will accommodate dry disconnects. Because these tank trucks are not owned or operated by transfer facilities, it is outside of affected sources control to equip the tank trucks with such fittings.

Sources Affected and Location

This amendment affects the Transflo Terminal Services, Inc. located in Baltimore City.

Requirements

These amendments provide an alternative equivalent vapor recovery method for the transfer of high vapor pressure materials that must be approved by the Department and the EPA.

Expected Emissions Reductions

Air quality emission benefits will be achieved by providing an alternative to the use of dry disconnects for the transfer of high vapor pressure materials. The affected facility has developed a custom transloading operation for high vapor pressure materials such as hexane that involves an elevated platform, vapor balance and a "fail-closed" configuration which turns off the pump and ceases flow should there be a leaking connection, valve, or hose. Liquid pump(s) are used to empty the hoses upon completion of the transfer operation which minimizes releases to the environment (i.e., spills and evaporation).

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

The proposed amendment will not incur an economic impact on affected sources, the Department, trade association or the public.

Economic Impact on Small Businesses

The affected sources do not fit the definition of "small business."

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

There is no corresponding federal standard to this proposed action.

Title 26 DEPARTMENT OF THE ENVIRONMENT

Subtitle 11 AIR QUALITY

Chapter 13 Control of Gasoline and Volatile Organic Compound Storage and Handling

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 — .03 (text unchanged)

.04 Loading Operations.

A. Bulk Gasoline Terminals.

(1) — (2) (text unchanged)

(3) Test Procedures.

(a) Testing for leak-tight conditions, as required in §A(1)(b)(ii) of this regulation, shall be conducted as prescribed in Method 1008 of the Department's Technical Memorandum 91-01, "Test Methods and Equipment Specifications for Stationary Sources" **[(]**January 1991**[)]**, *as amended through Supplement 3 (October 1, 1997),* which is incorporated by reference in COMAR 26.11.01.04C.

(b) The test procedures to determine mass emission rate compliance as required in §A(1)(a) of this regulation, shall be as prescribed in Method 1009 of the Department's Technical Memorandum 91-01, "Test Methods and Equipment Specifications for Stationary Sources" **[(]**January 1991**[)]**, *as amended through Supplement 3 (October 1, 1997),* which is incorporated by reference in COMAR 26.11.01.04C.

B. — C. (text unchanged)

D. General Standards. A person may not cause or permit gasoline or VOC having a TVP of 1.5 psia (10.3 kilonewtons/square meter) or greater to be loaded into any tank truck, railroad tank car, or other contrivance unless the:

(1) — (2) (text unchanged)

E. Alternative Compliance Procedures. In lieu of satisfying the requirements of §D(1), a person may instead utilize:

(a) An overhead loading rack installation which transfers VOC other than gasoline having a TVP of 1.5 psia (10.3 kilonewtons/square meter) from railroad tank car to tank trucks, or vice versa, using the following control practices:

(i) Walking the hose clear of fluids;

(ii) Running a pump to clear the line of fluids;

(iii) Application of inert gas to clear the line of fluids; and

(iv) Use of drip pans and other spill control equipment to limit the release of any product during post loading disconnections; or

(b) An alternative equivalent vapor containment method approved by the Department and the EPA as a revision to the Maryland State Implementation Plan.

.05 Gasoline Leaks from Tank Trucks.

A. (text unchanged)

B. Method of Compliance. A person who owns or operates a gasoline tank truck subject to this regulation shall:

(1) (text unchanged)

(2) Use the certification test procedures as prescribed in Method 1007 of the Department's Technical Memorandum 91-01, "Test Methods and Equipment Specifications for Stationary Sources" **[(]**January 1991**[)]**, *as amended through Supplement 3 (October 1, 1997),* which is incorporated by reference in COMAR 26.11.01.04C; and

(3) (text unchanged)

C. Determination of Compliance.

(1) (text unchanged)

(2) The Department may at any time monitor gasoline tank trucks for leak-tight conditions using the procedures described in Method 1008 of the Department's Technical Memorandum 91-01, "Test Methods and Equipment Specifications for Stationary Sources", *January 1991, as amended through Supplement 3 (October 1, 1997),*which is incorporated by reference in COMAR 26.11.01.04C.

D. (text unchanged)

.06 — .08 (text unchanged)

Department of the Environment

Facts About...

Amendments to COMAR 26.11.34 Low Emissions Vehicle Program

August 8, 2013

Purpose of Amendments

The purpose of these amendments is to update COMAR 26.11.34.02 Incorporation by Reference to reflect the changes made to the California regulations since their last update.

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 (SIP).

Background

Vehicles sold in the United States must be certified under one of two certification programs: the federal program (Tier 2) or the California program (the Clean Car Program). Section 177 of the Clean Air Act Amendments of 1990 provides states the ability to adopt the California program in lieu of the federal program as long as the adopted state program is identical to the California program and the state allows two model years lead time from adoption to implementation.

The Maryland Clean Cars Act of 2007 required the Maryland Department of the Environment (MDE) to adopt regulations implementing the California Clean Car Program (also referred to as the California Low Emissions Vehicle Program-CAL LEV) in Maryland. Maryland's implementing regulations adopted, through incorporation by reference, the applicable California regulations. The Cal LEV program is a dynamic, changing program in which many of the relevant California regulations are continuously updated. To retain California's standards, Maryland must remain consistent with their regulations, hence when California updates its regulations, Maryland must reflect these changes by amending our regulations.

The proposed changes are in effect in California as well as some of the other states that have adopted the CALEV program. Essentially, the changes in this proposed action are merely updates to existing test procedures and provisions and will have minimal, if any, impact on the cost or implementation of the program in Maryland.

Sources Affected and Location

These amendments apply to automobile manufacturers that produce new motor vehicles for sale in Maryland. All vehicle types that have a gross vehicle weight rating of less than 14,000 pounds are affected.

Requirements

These amendments update Maryland's program requirements to be consistent with California's program requirements. This action is necessary since many of the California regulations that are incorporated into the Maryland regulation have been updated. These individual regulatory changes can be grouped into 2 areas:

- Non-substantive changes to the heavy-duty on-board diagnostics (HD-OBD) and OBD II standards.
- Allowing compliance with the National greenhouse gas (GHG) standards to satisfy the requirements of California's GHG standard.

These changes are described in greater detail in the Technical Support Document for this action. The most significant change is to the GHG Standards which allows manufacturers to meet California's GHG standards by complying with the new federal standards for the 2017-2025 Model Years. This action is similar to that taken previously when California allowed compliance with the current federal GHG standards to satisfy compliance with the CAL LEV II Standard in model year (MY) 2012 thru 2016.

Expected Emissions Reductions

The OBD related changes to the regulations will not impact the program's emissions benefits. Allowing compliance with the National GHG program to satisfy compliance with the California (and thus Maryland's) program requirements may have a small impact on the benefits. The emissions impact is expected to be insignificant since the National GHG program was developed in coordination with California and was designed to minimize differences in program requirements that ultimately impact the emissions benefits. Once the National program takes effect nationwide, all vehicles sold in the country will produce fewer GHG emissions, not just those sold in California and the other Clean Car states. Any benefit loss associated with this dual compliance mechanism will likely be recovered as these national vehicles travel through Maryland and enter the fleet through other means (used car sales, resident relocations, etc.)

Economic Impact on Affected Sources and the Department

Minimal additional burden or cost is expected as a result of these amendments. The changes to the GHG component will help manufacturers meet the more stringent requirements. The GHG changes provide manufacturers the ability to comply with California's regulations, for MY 2017-2025, through meeting the National GHG standards; much like the current regulation allows MY 2012-2016 compliance through meeting the National program. This will help streamline the reporting requirements for manufacturers and reduce the regulatory burden for them.

These amendments will have no economic impact on the Department. They also will have no impact on the Motor Vehicle Administration's registration, data management, and dealer oversight activities related to this program.

Economic Impact on Consumers and Dealers

The economic impact of these amendments upon Maryland consumers is minimal as the manufacturers are required to produce one vehicle that will meet both California and federal standards.

These amendments should have no impact on Maryland dealers. They will enable the dealers to provide consumers with the most fuel efficient technology and vehicles available.

Economic Impact on Small Businesses

These amendments will have no impact on small businesses. These amendments impact the vehicle production and certification processes that are only applicable to the manufacturers of new motor vehicles.

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

No.

Title 26 DEPARTMENT OF THE ENVIRONMENT

Subtitle 11 AIR QUALITY

Chapter 34 Low Emissions Vehicle Program

Authority: Environment Article, §§1-404, 2-102, 2-103, and 2-301, Annotated Code of Maryland; Ch.111 and 112, Acts of 2007

.02 Incorporation by Reference.

A. In this chapter, the following documents are incorporated by reference.

B. Documents Incorporated.

(1) Title 13, California Code of Regulations (CCR), Division 3, Chapter 1, Article 1, §1900 Definitions, as effective **[**August 7,2012**]** *December 31, 2012*.

(2) Title 13, California Code of Regulations (CCR), Division 3, Chapter 1, Article 2, §1960.1 Exhaust Emissions Standards and Test Procedures—1981 through 2006 Model Passenger Cars, Light-Duty and Medium-Duty Vehicles, as effective **[**August 7, 2012**]** *December 31, 2012*.

(3) (text unchanged)

(4) Title 13, California Code of Regulations (CCR), Division 3, Chapter 1, Article 2, §1961 Exhaust Emission Standards and Test Procedures—2004 through 2019 Model Passenger Cars, Light-Duty Trucks, and Medium-Duty Vehicles, as effective **[**August 7, 2012**]** *December 31, 2012*.

(5) (text unchanged)

(6) Title 13, California Code of Regulations (CCR), Division 3, Chapter 1, Article 2, §1961.2 Exhaust Emission Standards and Test Procedures—2015 and Subsequent Model Passenger Cars, Light-Duty Trucks, and Medium-Duty Vehicles, as effective **[**August 7, 2012**]** *December 31, 2012*.

(7) Title 13, California Code of Regulations (CCR), Division 3, Chapter 1, Article 2, §1961.3 Greenhouse Gas Exhaust Emission Standards and Test Procedures—2017 and Subsequent Model Passenger Cars, Light-Duty Trucks, and Medium-Duty Vehicles, as effective **[**August 7, 2012**]** *December 31, 2012*.

(8) (text unchanged)

(9) Title 13, California Code of Regulations (CCR), Division 3, Chapter 1, Article 2, §1962.1 Zero-Emission Vehicle Standards for 2009 through 2017 Model Year Passenger Cars, Light-Duty Trucks, and Medium-Duty Vehicles, as effective **[**August 7, 2012**]** *December 31, 2012*.

(10) Title 13, California Code of Regulations (CCR), Division 3, Chapter 1, Article 2, §1962.2 Zero-Emission Vehicle Standards for 2018 and Subsequent Model Year Passenger Cars, Light-Duty Trucks, and Medium-Duty Vehicles, as effective **[**August 7, 2012**]** *December 31, 2012*.

(11)─(12) (text unchanged)

(13) Title 13, California Code of Regulations (CCR), Division 3, Chapter 1, Article 2, §1968.2 Malfunction and Diagnostic System Requirements—2004 and Subsequent Model-Year Passenger Cars, Light-Duty Trucks, and Medium-Duty Vehicles and Engines, as effective **[**August 7, 2012**]** *July 31, 2013*.

(14) Title 13, California Code of Regulations (CCR), Division 3, Chapter 1, Article 2, §1968.5 Enforcement of Malfunction and Diagnostic System Requirements for 2004 and Subsequent Model-Year Passenger Cars, Light-Duty Trucks, and Medium-Duty Vehicles and Engines, as effective **[**August 7,2012**]** *July 31, 2013*.

(15)─(16) (text unchanged)

(17) Title 13, California Code of Regulations (CCR), Division 3, Chapter 1, Article 2, §1976 Standards and Test Procedures for Motor Vehicle Fuel Evaporative Emissions, as effective **[**August 7, 2012**]** *December 31, 2012*.

(18)─(79) (text unchanged)

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