



November 21, 2012

David B. Conroy, Chief
Air Programs Branch
United States Environmental Protection Agency – Region 1
5 Post Office Square - Suite 100
Boston, MA 02109-3912

**Re: *Revision to the Connecticut State Implementation Plan --
Reasonably Available Control Technology Update to Address a 2008
Control Techniques Guideline***

Dear Mr. Conroy:

This package is a revision to the State Implementation Plan (SIP) concerning the RACT requirements for volatile organic compounds (VOC) in response to the U.S. Environmental Protection Agency's (EPA's) adoption of a control techniques guideline (CTG) in 2008 for miscellaneous metal and plastic parts coating (EPA-453/R-08-003-2008/09). Pursuant to 40 CFR 51, Appendix V, Section 2.1(a), a copy of the final regulation implementing the CTG and documentation of the public hearing are provided. An electronic copy of this submission has also been mailed to the copy recipients listed below, and I certify that such copies are an exact copy of this paper submission.

Effective October 31, 2012, the Connecticut Department of Energy and Environmental Protection (DEEP) revised RCSA section 22a-174-20(s) and adopted RCSA section 22a-174-20(kk) to address the requirements of the miscellaneous metal and plastic parts coatings CTG. Effective the same date, DEEP also revised RCSA section 22a-174-20(aa)(1) and (cc)(2) and (3), which revisions are necessary given the revision to subsection (s) and adoption of subsection (kk). The submission also makes a clarification to RCSA section 22a-174-20(ii)(3)(A). All of these revisions are elements of this SIP revision and are submitted for approval as part of the regulatory text in Attachment A.

All required state and federal procedures for public participation and in satisfaction of the requirements of 40 CFR 51, Appendix V, Section 2 were followed. To demonstrate satisfaction of the federal public participation requirements, we have enclosed: a certified copy of the regulatory revisions; the public notice; a list of attendees at the public hearing; certification of public hearing; and a hearing report, which summarizes comments received, identifies the commenters and describes changes made as a result of the comments. The submitted attachments are as follows:

Attachment A Revisions to RCSA section 22a-174-20, effective on 31 October 2012, in the form filed with the Secretary of the State, marked with brackets and underlined text to show the changes to the current SIP requirements.

- Attachment B Public notice as published in the *Connecticut Law Journal* and on the DEEP website on 27 September 2011.
- Attachment C Attendees at the public hearing on 9 November 2011, DEEP Headquarters, 79 Elm Street, Hartford, CT
- Attachment D Certification of public hearing
- Attachment E Hearing report
- Attachment F Copy of the report of the Legislative Commissioners' Office
- Attachment G Regulatory Assessment Document

DEEP finds the adopted requirements to be at least as stringent as the requirements of the underlying 2008 CTG. DEEP has addressed the design of the adopted requirements, including certain aspects that vary from the CTG, in the Regulatory Assessment Document (Attachment G) and, to a lesser extent, the hearing report (Attachment E). We hope you find this information helpful in reviewing and ultimately approving this SIP revision. If you require additional information or have any questions about this submission, please get in touch with Merrily Gere of the Bureau of Air Management at (860) 424-3416 or merrily.gere@ct.gov.

Sincerely,



Anne R. Gobin
Chief, Bureau of Air Management

cc: Anne Arnold, EPA Region 1
Robert McConnell, EPA Region 1

Attachment A

Revisions to RCSA section 22a-174-20



Office of the Secretary of the State
 State of Connecticut
 P.O. Box 150470, Hartford, CT 06115-0470

DENISE W. MERRILL
 Secretary of the State
JAMES FIELD SPALLONE
 Deputy Secretary of the State

November 7, 2012

Daniel Esty, Commissioner
 Department of Energy and Environmental Protection
 79 Elm Street
 Hartford, CT 06105

Re: Agency Regulation Concerning:
Amendment of Section 22a-174-20 of the Regulations of Connecticut State
Agencies: Control of Organic Compound Emissions
 Regulation Review Committee Docket Number: 2012-24a
 Secretary of the State File Number: 6087


Dear Commissioner Esty:

This is to acknowledge receipt of two copies of the above referenced regulation issued by the Department of Energy and Environmental Protection. One of the two copies has been forwarded to the Commission on Official Legal Publications as required by law.

Said regulation was received and filed in this office on October 31, 2012. The effective date of this regulation is October 31, 2012.

We request that you please forward the original or a copy of this acknowledgement letter to your agency's legal services department, and/or to the agency department responsible for adopting the regulation, for its files.

Sincerely,


 Barbara Sladek
 RLS Assistant Coordinator
 860-509-6147

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DEPT. OF ENVIRONMENTAL PROTECTION

CC: Commission on Official Legal Publications (Letter and Copy of Regulation)

File

State of Connecticut
REGULATION
of

NAME OF AGENCY

Department of Energy and Environmental Protection

Concerning

SUBJECT MATTER OF REGULATION

Amendment of Section 22a-174-20 of the
Regulations of Connecticut State Agencies
Control of Organic Compound Emissions

Section 1. Subsection (s) of section 22a-174-20 of the Regulations of Connecticut State Agencies is amended to read as follows:

(s) Miscellaneous metal and plastic parts [and products.] coatings.

[(1) For the purpose of this subsection:

"Air dried coating" means a coating that is dried by the use of air or forced warm air at temperatures up to below 90 degrees C (194 degrees F).

"Clear coat" means a base or top coating which either lacks color and opacity or which is transparent and uses the surface to which it is applied as a reflectant base or undertone color.

"Coating application system" means all operations and equipment that apply, convey and dry a surface coating, including, but not limited to, spray booths, flow coaters, flashoff areas, air dryers and ovens.

"Exposure to extreme environmental conditions" means exposure to: the weather all of the time; temperatures consistently above 95 degrees C; detergents; abrasive and scouring agents; solvents; corrosive atmospheres; or similar environmental conditions as determined by the commissioner and the Administrator.

"Extreme performance coatings" means coatings designed for exposure to extreme environmental conditions.

"Heat sensitive material" means materials that cannot consistently be exposed to temperature greater than 95 degrees C (203 degrees F) for more than 30 seconds.

"High performance architectural aluminum coating" means a coating that is applied to architectural aluminum panels, extrusions or subsections to meet the specifications of publication number AAMA 605.2-1992 of the Architectural Aluminum Manufacturer's Association.

"Prime coat" means the first of two or more films of coating applied to a metal surface.

"Single coat" means one film of coating applied to a metal surface.

"Topcoat" means the final film or series of films of coating applied in a two-coat (or more) operation.

"Transfer efficiency" means the portion of coating solids that adheres to the metal surface during the application process, expressed as a percentage of the total volume of coating solids delivered by the applicator.

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DEPARTMENT OF ENERGY AND ENVIRONMENTAL PROTECTION
REGULATION & CERTIFICATION
ADMINISTRATION DIVISION

- (2) Applicability. For the purpose of this subsection:
- (A) Miscellaneous metal parts and products includes the following industrial categories:
- (i) Large farm machinery such as harvesting, fertilizing and planting machines, tractors, combines, etc.,
 - (ii) Small farm machinery such as lawn and garden tractors, lawn mowers, rototiller, etc.,
 - (iii) Small appliances such as fans, mixers, blenders, crock pots, dehumidifiers, vacuum cleaners, etc.,
 - (iv) Commercial machinery such as office equipment, computers and auxiliary equipment, typewriters, calculators, vending machines, etc.,
 - (v) Industrial machinery such as pumps, compressors, conveyor components, fans, blowers, transformers, etc.,
 - (vi) Fabricated metal products such as metal covered doors, frames, etc., and
 - (vii) Any other industrial category which coats metal parts or products under the Standard Industrial Classification Code of Major Group 33 (primary metal industries), Major Group 34 (fabricated metal products), Major Group 35 (nonelectric machinery), Major Group 36 (electrical machinery), Major Group 37 (transportation equipment), Major Group 38 (miscellaneous instruments), Major Group 39 (miscellaneous manufacturing industries), Major Group 40 (Railroad Transportation) and Major Group 41 (Transit Passenger Transportation); and
- (B) Miscellaneous metal parts and products excludes the following items:
- (i) automobiles and light duty trucks,
 - (ii) metal cans,
 - (iii) flat metal sheets and strips in the form of rolls or coils,
 - (iv) plastic and glass objects,
 - (v) magnet wire for use in electrical machinery,
 - (vi) metal furniture,
 - (vii) the exterior surface of assembled aircraft,
 - (viii) automobile refinishing,
 - (ix) customized top coating of automobiles and trucks, if production is less than 5 vehicles per day, and
 - (x) the exterior surface of assembled marine vessels.

- (3) Emission standards. No owner or operator of a facility engaged in the surface coating of miscellaneous metal parts and products may operate a coating application system subject to this subsection that emits volatile organic compounds from any coating in excess of:
- (A) 0.52 kg/l (4.3 lb/gal) of coating, excluding water and exempt volatile organic compounds listed in 40 CFR 51.100(s) as amended from time to time, delivered to a coating applicator that applies a clear coat;
 - (B) 0.42 kg/l (3.5 lb/gal) of coating, excluding water and exempt volatile organic compounds listed in 40 CFR 51.100(s) as amended from time to time, delivered to a coating applicator in a coating application system that is air dried or forced warm air dried at temperatures up to 90 degrees C (194 degrees F);
 - (C) 0.42 kg/l (3.5 lb/gal) of coating, excluding water and exempt volatile organic compounds listed in 40 CFR 51.100(s) as amended from time to time, delivered to a coating applicator that applies extreme performance coatings;
 - (D) 0.36 kg/l (3.0 lb/gal) of coating, excluding water and exempt volatile organic compounds listed in 40 CFR 51.100(s) as amended from time to time, delivered to a coating applicator for all other coatings, adhesives, fillers or sealants and coating application systems; and
 - (E) 0.75 kg/l (6.3 lb/gal) of coating, excluding water and exempt volatile organic compounds listed in 40 CFR 51.100(s) as amended from time to time, delivered to a coating applicator which applies high performance architectural aluminum coatings, provided that:
 - (i) such applicator is located at a premises which emits three thousand three hundred thirty three (3,333) pounds of volatile organic compounds per month or less from such applicator, and
 - (ii) such applicator was an existing source in Connecticut on or before November 1, 1994.
- (4) This subsection applies to all application areas, flashoff areas, air and forced air dryers and ovens used in the surface coating operations pertaining to miscellaneous metal parts and products listed in subsection (s)(2) of this section. This regulation also applies to prime coat, top coat and single coat operations.
- (5) If more than one emission limitation in subsection (s)(3) of this section applies to a specific coating, then the least stringent emission limitation shall be applied.
- (6) All volatile organic compound emissions from solvent washings shall be considered in the emission limitations in subsection (s)(3) of this section unless the solvent is directed into containers that prevent evaporation into the atmosphere.
- (7) The provisions of this subsection apply to any premises that has actual emissions of volatile organic compounds of fifteen (15) pounds per day or more in any one day from all miscellaneous metal parts and products surface coating operations on such premises unless:
- (A) The total potential emissions from all surface coating operations are limited by permit or order of the commissioner to 1,666 pounds or less in any calendar month;

- (B) The owner or operator is and has at all times been in compliance with such limitation since the issuance of the permit or order;
- (C) The total actual emissions from all such surface coating operations have not exceeded 1,666 pounds in any calendar month since January 1987; and
- (D) Notwithstanding subsections (A) through (C) of this subdivision, any surface coating operation on such premises that emitted 40 pounds or more in any day and that was subject to the requirements of this subsection prior to November 1, 1989, shall remain subject to the provisions of this subsection.

(8) After November 1, 1989 any premises that is or becomes subject to the provisions of this subsection shall remain subject to the provisions of this subsection unless the owner or operator meets the requirements of subparagraphs (A), (B) and (C) of subdivision (7) of this subsection.

(9) The owner or operator of any surface coating operation that was not subject to the requirements of this subsection prior to November 1, 1989, shall have until October 1, 1990, to comply with the requirements of this subsection for such system.

(10) Notwithstanding the requirements of this subsection, an owner or operator may use, in the aggregate, up to fifty-five (55) gallons of coatings that exceed the emission limitations set forth in subdivision (3)(A) through (3)(E), inclusive, of this subsection at such premises for any twelve (12) consecutive months, provided such owner or operator maintains records of such coatings in accordance with subsection (aa) of this section.]

(1) Definitions. For the purpose of this subsection, the following definitions apply:

“Ablative coating” means a coating that chars when exposed to open flame or extreme temperatures, as would occur during the failure of an engine casing or during aerodynamic heating, to protect adjacent components from the heat or open flame;

“Adhesion promoter” means a very thin coating applied to a substrate to promote wetting and form a chemical bond with the subsequently applied material;

“Adhesive bonding primer” means a primer applied in a thin film to aerospace components to inhibit corrosion and increase adhesive bond strength;

“Aerospace high temperature coating” means a coating designed to withstand temperatures of more than 350°F;

“Aerospace vehicle or component” means any fabricated part, processed part, assembly of parts, or completed unit, with the exception of electronic components, of any aircraft including but not limited to airplanes, helicopters, missiles, rockets and space vehicles;

“Air dried” means cured at a temperature below 90°C (194 °F);

“Airless spray application” means a coating spray application system using high fluid pressure, without compressed air, to atomize the coating;

“Air-assisted airless spray application” means a coating spray application system using fluid pressure to atomize the coating and lower pressure air to adjust the shape of the spray pattern;

“Antichafe coating” means a coating applied to areas of moving aerospace components that may rub during normal operations or installation;

“Antique aerospace vehicle” means an aircraft or component thereof that was built at least 30 years ago and that is not routinely in commercial or military service in the capacity for which it was designed;

“Appurtenance” means any accessory to a stationary structure, including but not limited to: bathroom and kitchen fixtures; cabinets; concrete forms; doors; elevators; fences; hand railings; heating equipment, air conditioning equipment, and other fixed mechanical equipment or stationary tools; lampposts; partitions; pipes and piping systems; rain gutters and downspouts; stairways; fixed ladders; catwalks; fire escapes and window screens;

“As applied” means the composition of coating at the time it is applied to a surface, including any solvent, catalyst or other substance added to the coating but excluding water and exempt compounds;

“Automotive-transportation part” means an interior or exterior component of a motor vehicle or mobile source;

“Baked” means cured at a temperature at or above 90°C (194°F);

“Base coat” means the initial coating applied to a substrate in a process of applying two or more coatings;

“Bearing coating” means a coating applied to an antifriction bearing, a bearing housing or the area adjacent to such a bearing to facilitate bearing function or to protect base material from excessive wear. “Bearing coating” does not include a material that can also be classified as a dry lubricative material or a solid film lubricant;

“Bonding maskant ” means a temporary coating used to protect selected areas of aerospace parts from strong acid or alkaline solutions during processing for bonding;

“Business machine” means a device that uses electronic or mechanical methods to process information, perform calculations, print or copy information or convert sound into electrical impulses for transmission, such as, typewriters, electronic computing devices, calculating and accounting machines, telephone and telegraph equipment and photocopy machines;

“Camouflage coating” means a coating used, principally by the military, to conceal equipment from detection;

“Capture efficiency” means the ratio of VOC emissions delivered to the control device to the total VOC emissions resulting from the miscellaneous metal and plastic parts coating operation, expressed as a percentage;

“Caulking and smoothing compound” means a semi-solid material that is applied by hand and used to smooth exterior vehicle surfaces or fill cavities such as bolt hole accesses. “Caulking and smoothing compound” does not include a material that can also be classified as a sealant;

“Chemical agent-resistant coating” means an exterior topcoat designed to withstand exposure to chemical warfare agents or the decontaminants used on these agents;

“Chemical milling maskant” means a coating that is applied directly to aluminum components to protect surface areas when chemically milling the component with a Type I or II etchant. “Chemical milling maskants” do not include bonding maskants, critical use and line sealer maskants, seal coat maskants, maskants that are defined as specialty coatings or maskants used with either a Type I or II etchant plus a bonding maskant, critical use and line sealer maskant or seal coat maskant;

“Cleaning solvent” means any VOC-containing liquid, including a liquid impregnated wipe or towelette, used in cleaning;

“Clear coating” means a colorless coating that contains binders but no pigment and that is formulated to form a transparent film;

“Coating” means a material that is deposited in a thin, persistent, uniform layer across the surface of a substrate for aesthetic, protective or functional purposes, including but not limited to, paints, primers, inks and maskants. “Coating” does not include protective oils, acids and bases;

“Coating unit” means a series of one or more coating applicators and any associated drying area or oven wherein a coating is applied, dried or cured. A “coating unit” ends at the point where the coating is dried or cured, or prior to any subsequent application of a different coating;

“Commercial exterior aerodynamic structure primer” means a primer used on aerodynamic components and structures that protrude from the fuselage, such as wings and attached components, control surfaces, horizontal stabilizers, vertical fins, wing-to-body fairings, antennae and landing gear and doors for the purpose of extended corrosion protection and enhanced adhesion;

“Commercial interior adhesive” means a material used in the bonding of passenger cabin interior components;

“Compatible substrate primer” means one of the following coatings:

- (A) A primer that is compatible with the filled elastomeric coating and is epoxy based,
- (B) A primer that inhibits corrosion and is applied to bare metal surfaces or is applied prior to adhesive application, or
- (C) A primer that is applied to surfaces, excluding fuel tanks, that can be expected to come into contact with fuel;

“Control device efficiency” means the ratio of VOC emissions recovered or destroyed by the control device to the total VOC emissions that are introduced into the device, expressed as a percentage;

“Corrosion prevention compound” means a coating system that provides corrosion protection by displacing water and penetrating substrates, forming a protective barrier between the metal surface and moisture. “Corrosion prevention compound” does not include a coating containing oils or waxes;

“Critical use and line sealer maskant” means a temporary coating, not covered under other maskant categories, used to protect selected areas of aerospace parts from strong acid or alkaline solutions such as those used in anodizing, plating, chemical milling and processing of magnesium, titanium or high A8 strength steel, high-precision aluminum chemical milling of deep cuts and aluminum chemical milling of complex shapes, and includes materials used for repairs or to bridge gaps left by scribing operations;

“Cryogenic flexible primer” means a primer designed to provide corrosion resistance, flexibility and adhesion of subsequent coating systems when exposed to loads up to and surpassing the yield point of the substrate at cryogenic temperatures (-275°F and below);

“Cryoprotective coating” means a coating that insulates cryogenic or subcooled surfaces to limit propellant boil-off, maintain structural integrity of metallic structures during ascent or re-entry and prevent ice formation;

“Cyanoacrylate adhesive” means a fast-setting, single component adhesive that cures at room temperature and contains methyl, ethyl, methoxymethyl or other functional groupings of cyanoacrylate;

“Dip coating” means a method of applying a coating to a surface by submersion into and removal from a coating bath;

“Drum” means any cylindrical metal container larger than 12 gallons capacity and less than or equal to 110 gallons capacity;

“Dry lubricative material” means a coating consisting of lauric acid, cetyl alcohol, waxes or other non-cross linked or resin-bound materials that act as a dry lubricant;

“Electric dissipating coating” means a coating that rapidly dissipates a high-voltage electric charge;

“Electric-insulating and thermal-conducting coating” means a coating that displays an electrical insulation of at least 1000 volts DC per mil on a flat test plate and an average thermal conductivity of at least 0.27 BTU per hour-foot-degree-Fahrenheit;

“Electric-insulating varnish” means a coating applied to electric motors, components of electric motors or power transformers to provide electrical, mechanical and environmental protection or resistance;

“Electric or radiation-effect coating” means a coating or coating system engineered to interact, through absorption or reflection, with specific regions of the electromagnetic energy spectrum, such as the ultraviolet, visible, infrared or microwave regions and which may be used for lightning strike protection, electromagnetic pulse (EMP) protection and radar avoidance.

“Electrostatic application” means a method of applying coating particles or coating droplets to a grounded surface by electrically charging such particles or droplets;

“Electrostatic discharge and electromagnetic interference coating” or “EMI coating” means a coating applied to space vehicles, missiles, aircraft radomes and helicopter blades to disperse static energy or reduce electromagnetic interference;

“Electrostatic preparation coating” means a coating applied to a plastic part solely to provide conductivity for the subsequent application of a primer, a topcoat or other coating through the use of electrostatic application methods;

“Elevated-temperature Skydrol-resistant commercial primer” means a primer applied primarily to commercial aircraft or commercial aircraft adapted for military use that withstands immersion in phosphate-ester hydraulic fluid (Skydrol 500b or equivalent) at the elevated temperature of 150°F for 1,000 hours;

“EMI/RFI shield coating” means a coating that functions to attenuate electromagnetic interference, radio frequency interference signals or static discharge;

“Epoxy polyamide topcoat” means a coating containing epoxy and a polyamide component used to provide a hard, durable, chemical-resistant finish;

“Etching filler” means a coating that contains less than 23% solids by weight and at least 0.5% acid by weight and is used as a substitute for the application of a pretreatment coating followed by a primer;

“Exempt compound” means a carbon compound excluded from the definition of “volatile organic compound,” as defined in section 22a-174-1 of the Regulations of Connecticut State Agencies;

“Extreme high-gloss coating” means a coating that, when tested by American Society for Testing Material Test Method D523-08, Standard Test Method for Specular Gloss, shows a reflectance of 75 or more on a 60 degree meter;

“Extreme performance coating” means a coating used on a metal surface where the coated surface is, in its intended use, subject to one of the following conditions:

- (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, or
- (C) Repeated heavy abrasion, including mechanical wear and repeated scrubbing with industrial grade solvents, cleaners or scouring agents;

“Fire-resistant interior coating” means, for civilian aircraft, fire-resistant interior coatings used on passenger cabin interior parts that are subject to Federal Aviation Administration fireworthiness requirements. For military aircraft, fire-resistant interior coatings are used on parts that are subject to the flammability requirements of MIL-STD-1630A and MIL-A-87721. For space applications, “fire-resistant interior coating” means a coating subject to the flammability requirements of SE-R-0006 and SSP 30233;

“Flexible primer” means a primer with elastomeric qualities that provides a compatible, flexible substrate over bonded sheet rubber and rubber-type coatings;

“Flight test coating” means a coating applied to aircraft other than missiles or single-use aircraft prior to flight testing to protect the aircraft from corrosion and to provide required marking during flight test evaluation;

“Flow coating” means a non-atomized technique of applying coating to a substrate using a fluid nozzle in a fan pattern with no air supplied to the nozzle;

“Fog coat” means a coating that is applied to a plastic part at a thickness of no more than 0.5 mils of coating solids for the purpose of color matching without masking a molded-in texture;

“Fuel tank adhesive” means an adhesive that must be compatible with fuel tank coatings and is used to bond components exposed to fuel;

“Fuel tank coating” means a coating applied to fuel tank components for the purpose of corrosion or bacterial growth inhibition and to assure sealant adhesion in extreme environmental conditions;

“General” means a coating category for a coating that does not meet any other category definition provided in this subsection for the specified substrate (i.e., metal part or plastic part);

“General aviation rework facility” means any aerospace facility with the majority of its revenues resulting from the reconstruction, repair, maintenance, repainting, conversion or alteration of general aviation aerospace vehicles or components;

“Gloss reducer” means a coating that is applied to a plastic part at a thickness of no more than 0.5 mils of coating solids solely to reduce the shine of the part;

“Heat-resistant coating” means a coating able to withstand a temperature of at least 400° F during normal use;

“High-performance architectural coating” means a coating used to protect architectural subsections and which meets the requirements of the Architectural Aluminum Manufacturer Association’s 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);

“High temperature coating” means a coating certified to withstand a temperature of 1000°F for 24 hours;

“HVLP spray application” means to apply a coating using a coating application system that uses lower air pressure and higher volume than conventional air atomized spray systems, where the manufacturer has represented that the system is HVLP by affixing a permanent label or through representations on the packaging or other product literature;

“Insulation covering” means material that is applied to foam insulation to protect the insulation from mechanical or environmental damage;

“Intermediate release coating” means a thin coating applied beneath topcoats to assist in removing the topcoat in repainting operations and to allow the use of less hazardous repainting methods;

“Lacquer” means a clear or pigmented coating formulated with a nitrocellulose or synthetic resin to dry by evaporation without a chemical reaction and that is resoluble in its original solvent;

“Large commercial aircraft” means an aircraft of more than 110,000 pounds, maximum certified take-off weight, manufactured for non-military use;

“Mask coating” means thin film coating applied through a template to coat a small portion of a substrate;

“Medical device” means an instrument, apparatus, implement, machine, gadget, appliance, implant, *in vitro* reagent or other similar or related article, including any component, part or accessory, which meets one of the following conditions:

- (A) Recognized in the official National Formulary or the United States Pharmacopeia or any supplement thereto,
- (B) Intended for use in the diagnosis of disease or other conditions or in the cure, mitigation, treatment or prevention of disease in persons or animals, or
- (C) Intended to affect the structure or function of the body of a person or animal and which does not achieve its primary intended purposes through chemical action within or on such body and which is not dependent upon being metabolized for the achievement of its primary intended purposes;

“Metalized epoxy coating” means a coating that contains metallic pigmentation for appearance or added protection;

“Metallic coating” means a coating that contains more than five grams of metal particles per liter of coating, as applied;

“Miscellaneous metal and plastic parts” means metal and plastic components of products as well as the products themselves constructed either entirely or partially from metal or plastic including, but not limited to: aerospace vehicles and components, fabricated metal products, molded plastic parts, 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, extruded aluminum structural components, railroad cars, lawn and garden equipment, business machines, laboratory and medical equipment, electronic equipment, steel drums, metal pipes and small appliances;

“Mold-seal coating” means the initial coating applied to a new mold or a repaired mold to provide a smooth surface that, when coated with a mold release coating, prevents products from sticking to the mold;

“Mold release” means a coating applied to a mold surface to prevent the molded piece from sticking to the mold as it is removed;

“Motor vehicle” means any self-propelled vehicle, including, but not limited to, cars, trucks, buses, golf carts, vans, motorcycles, tanks and armored personnel carriers;

“Motor vehicle bedliner coating” means a multi-component coating applied to a cargo bed after the application of a topcoat to provide additional durability and chip resistance;

“Motor vehicle cavity wax” means a coating applied into the cavities of the vehicle primarily for the purpose of enhancing corrosion protection;

“Motor vehicle deadener” means a coating applied to selected vehicle surfaces primarily for the purpose of reducing the sound of road noise in the passenger compartment;

“Motor vehicle gasket/sealing material” means a fluid applied to coat a gasket or replace and perform the same function as a gasket. Automobile and light-duty truck gasket/gasket sealing material includes room temperature vulcanization (RTV) seal material;

“Motor vehicle lubricating wax/compound” means a protective lubricating material applied to vehicle hubs and hinges;

“Motor vehicle sealer” means a high viscosity material generally, but not always, applied in the paint shop after the body has received an electrodeposition primer coating and before the application of subsequent coatings (e.g., primer-surfacer). The primary purpose of automobile and light-duty truck sealer is to fill body joints completely so that there is no intrusion of water, gases or corrosive materials into the passenger area of the body compartment. Such materials are also referred to as sealant, sealant primer, or caulk;

“Motor vehicle trunk interior coating” means a coating applied to the trunk interior to provide chip protection;

“Motor vehicle underbody coating” means a coating applied to the undercarriage or firewall to prevent corrosion or provide chip protection;

“Multi-colored coating” means a coating packaged in a single container and applied in a single coat which exhibits more than one color when applied;

“Multi-component coating” means a coating requiring the addition of a separate reactive resin, such as a catalyst or hardener, before application to form an acceptable dry film;

“Nonstructural adhesive” means an adhesive that bonds nonload bearing aerospace components in noncritical applications and is not covered in any other specialty adhesive categories;

“One-component coating” means a coating that is ready for application as packaged for sale, except for the addition of a thinner to reduce the viscosity;

“Optical antireflection coating” means a coating with a low reflectance in the infrared and visible wavelength ranges that is used for antireflection on or near optical and laser hardware;

“Optical coating” means a coating with a low reflectance in the infrared and visible wavelength range that is used on or near optical or laser lenses or hardware;

“Overall control efficiency” means the product of the capture efficiency and the control device efficiency;

“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 element;

“Part marking coating” means coatings or inks used to make permanent or temporary identifying markings on materials, components or assemblies;

“Plastic part” means any piece or combination of pieces of which at least one has been formed from one or more resins. Such pieces may be solid, porous, flexible or rigid. “Plastic part” does not include a part made of fiberglass or composite material;

“Powder coating” means any coating applied as a dry, finely divided solid that, when melted and fused, adheres to the substrate as a paint film;

“Prefabricated architectural component coating” means a coating applied to prefabricated metal parts and products that are to be used as architectural appurtenances or structures and that are detached from the structure when coated in a shop environment;

“Pretreatment coating” means a coating, containing at least 0.5 percent acid by weight, applied directly to a metal or composite surface to provide surface etching, corrosion resistance, adhesion and ease of stripping;

“Primer” means a coating applied to prevent corrosion, provide protection or provide a surface for adhesion of subsequent coatings;

“Radome” means the nonmetallic protective housing for electromagnetic transmitters and receivers such as radar or electronic countermeasures;

“Rain erosion-resistant coating” means a coating or coating system used to protect the leading edges of parts, such as flaps, stabilizers, radomes or engine inlet nacelles against erosion caused by rain impact during flight;

“Related cleaning” means the removal of uncured coatings, coating residue and contaminants from:

- (A) Miscellaneous metal and plastic parts prior to the application of coatings,
- (B) Miscellaneous metal and plastic parts between coating applications, or
- (C) Transfer lines, storage tanks, spray booths and coating application equipment;

“Repair coating” means a coating used to recoat portions of a product that has sustained mechanical damage to the coating following normal painting operations;

“Resin” means any of numerous physically similar polymerized synthetics or chemically modified natural materials including thermoplastic materials such as polyvinyl, polystyrene and polyethylene and thermosetting materials such as polyesters, epoxies and silicones;

“Resist coating” means a coating that is applied to a plastic part before metallic plating to prevent deposits of metal on portions of the plastic part;

“Rocket motor bonding adhesive” means an adhesive used in rocket motor bonding applications;

“Rocket motor nozzle coating” means a catalyzed epoxy coating system used in elevated temperature applications on rocket motor nozzles;

“Roll coating” means a coating method using a machine that applies coating to a substrate by continuously transferring coating through a set of oppositely rotating rollers;

“Rubber-based adhesive” means a quick-setting contact cement that provides a strong, yet flexible bond between two substrates that may be of dissimilar materials;

“Safety-indicating coating” means a coating that changes in a physical characteristic, such as color, to indicate unsafe conditions;

“Scale inhibitor” means a coating that is applied to the surface of a part prior to thermal processing to inhibit scale formation;

“Screen print ink” means an ink used in screen printing processes during fabrication of decorative laminates and decals;

“Sealant” means a material used to prevent the intrusion of water, fuel, air or other liquids or solids from certain areas of aerospace vehicles or components;

“Seal coat maskant” means an overcoat applied over a maskant to improve abrasion and chemical resistance during production operations;

“Self-priming topcoat” means one or more layers of identical coating formulation of a topcoat that is applied directly to an uncoated aerospace vehicle or component for corrosion prevention, environmental protection or functional fluid resistance;

“Shock-free coating” means a coating applied to electrical components to protect the user from electric shock and that provides for low capacitance and high resistance and resists breaking down under high voltage;

“Silicone insulation material” means an insulating material that is not sacrificial and that is applied to exterior metal surfaces for protection from high temperatures caused by atmospheric friction or engine exhaust;

“Silicone-release coating” means any coating that contains silicone resin and is intended to prevent food from sticking to metal surfaces such as baking pans;

“Solar-absorbent coating” means a coating that has as its primary purpose the absorption of solar radiation;

“Solid-film lubricant” means a very thin coating consisting of a binder system containing as its chief pigment material one or more of molybdenum disulfide, graphite, polytetrafluoroethylene or other solids that act as a dry lubricant between faying surfaces;

“Space vehicle” means a man-made device, either manned or unmanned, designed for operation beyond earth's atmosphere, including, but not limited to, integral equipment such as models, mock-ups,

prototypes, molds, jigs, tooling, hardware jackets and test coupons, including auxiliary equipment associated with test, transport and storage, which through contamination can compromise the space vehicle performance;

“Specialty coating” means a coating that, even though it meets the definition of a primer, topcoat or self-priming topcoat, has additional performance criteria beyond those of primers, topcoats and self-priming topcoats for specific applications. Such performance criteria may include, but are not limited to, temperature or fire resistance, substrate compatibility, antireflection, temporary protection or marking, sealing, adhesion or enhanced corrosion protection;

“Specialized function coating” means a coating that is limited in application, characterized by low volume usage and is not able to be categorized as any other coating in Table 20(s)-6a;

“Stencil coating” means an ink or a coating that is rolled or brushed onto a template or stamp to add identifying letters or numbers to metal parts or products;

“Structural autoclavable adhesive” means an adhesive used to bond load-carrying aerospace components that is cured by heat and pressure in an autoclave;

“Structural nonautoclavable adhesive” means an adhesive cured under ambient conditions that is used to bond load-carrying aerospace components or other critical functions, such as nonstructural bonding in the proximity of engines;

“Temporary protective coating” means a coating applied to provide scratch or corrosion protection during manufacturing, storage or transportation. “Temporary protective coating” does not include any coating that protects against strong acid or alkaline solutions;

“Texture coat” means a coating that is applied to a plastic part which, in its finished form, consists of discrete raised spots of the coating;

“Textured finish” means a rough surface produced by spraying and splattering large drops of coating onto a previously applied coating;

“Thermal control coating” means a coating formulated with specific thermal conductive or radiative properties to permit temperature control of the substrate;

“Topcoat” means the final coating applied in a process of applying two or more coatings;

“Touch-up coating” means a coating used to cover minor coating imperfections appearing after the main coating operation;

“Transfer efficiency” means the portion of coating solids that adheres to the metal or plastic surface during the application process, expressed as a percentage of the total volume of coating solids delivered by the applicator;

“Translucent coating” means a coating which contains binders and pigment and is formulated to form a colored, but not opaque, film;

“Vacuum-metalizing coating” means the undercoat applied to a substrate on which the metal is deposited prior to a vacuum-metalizing process or the overcoat applied directly to the metal film after a vacuum-metalizing process;

“Vacuum metalizing process” means the process of evaporating metals inside a vacuum chamber and depositing them on a substrate to achieve a uniform metalized layer;

“Wet fastener installation coating” means a primer or sealant applied by dipping, brushing or daubing to fasteners that are installed before the coating is cured; and

“Wing coating” means a corrosion-resistant topcoat that withstands the flexing of aircraft wings and rotary wings.

(2) Applicability.

(A) Except as provided in subdivision (7) of this subsection, the provisions of this subsection apply to the owner or operator of any:

(i) Coating unit subject at any time to the provisions of subsection (s) of this section that was in effect prior to the effective date of this regulation, or

(ii) Miscellaneous metal and plastic parts coating unit for which the owner or operator purchases for use at the premises 855 gallons or more of coatings and cleaning solvents in the aggregate per rolling 12-month period.

(B) Any owner or operator of a miscellaneous metal or plastic parts coating unit who does not meet the applicability requirements provided in subparagraph (A) of this subdivision shall maintain either material purchase or actual usage records to verify that this subsection does not apply to such owner or operator.

(C) An owner or operator subject to this subsection shall:

(i) For a miscellaneous metal and plastic parts coating unit that is in operation prior to or on the effective date of this regulation, comply with the requirements of this subsection no later than January 1, 2013, or

(ii) For a miscellaneous metal and plastic parts coating unit that commences operation after January 1, 2013, comply with the requirements of this subsection upon commencing operation.

(D) Any owner or operator subject to this subsection shall remain subject to this subsection.

(3) Except as provided in subdivision (7) of this subsection, on and after January 1, 2013, no owner or operator shall apply any coating, inclusive of any VOC-containing material added to the original coating supplied by the manufacturer, unless the owner or operator controls emissions of VOCs in accordance with subparagraph (A), (B), (C) or (D) of this subdivision. If more than one emission limit or emission rate applies in a particular situation, then the least restrictive limit or emission rate shall apply. An owner or operator shall control the emission of VOCs as follows:

(A) Use only coatings that have an as applied VOC content no greater than the applicable level in Table 20(s)-1, 20(s)-2, 20(s)-3, 20(s)-4, 20(s)-5, 20(s)-6a or 20(s)-6b;

(B) For a coating unit, use a combination of low-VOC coatings and add-on air pollution control equipment to achieve a VOC emission rate no greater than the applicable level in Table 20(s)-7, 20(s)-8, 20(s)-9, or 20(s)-10;

(C) Install, operate and maintain according to the manufacturer’s recommendations air pollution control equipment with an overall control efficiency of at least 90%; or

- (D) Achieve a level of control that is equivalent to subparagraph (A), (B) or (C) of this subdivision, as requested from and approved by the commissioner, in accordance with subsection (cc) of this section.
 - (E) An owner or operator controlling emissions as provided in subparagraph (A), (B), (C) or (D) of this subdivision is exempt from any obligation to comply with subsection (bb) of this section.
 - (F) The requirements of subparagraphs (A), (B), (C) or (D) of this subdivision shall not apply to a coating upon request to and approval by the commissioner and the Administrator. Any request for approval shall be made in writing and shall include a description of the noncompliant coating and its VOC content, an explanation of why the noncompliant coating is necessary, the aggregate amount in gallons or pounds of noncompliant coating use anticipated in a 12-month period and the frequency of use of the noncompliant coating.
- (4) Application methods. Except as provided in subdivision (7) of this subsection, an owner or operator shall not apply a VOC-containing coating to a miscellaneous metal and plastic part unless the coating is applied by one of the methods identified in subparagraphs (A) through (I) of this subdivision using equipment operated in accordance with the specifications of the equipment manufacturer:
- (A) Electrostatic application;
 - (B) Flow coating;
 - (C) Dip coating;
 - (D) Roll coating;
 - (E) HVLP spray application;
 - (F) Airless spray application;
 - (G) Air-assisted airless spray application;
 - (H) Hand application; or
 - (I) Any other coating application method capable of achieving a transfer efficiency equivalent to or better than that provided by HVLP spray application. Any owner or operator using an application method pursuant to this subparagraph shall maintain records demonstrating the transfer efficiency achieved.
- (5) Work practices. Each owner or operator shall use the following work practices:
- (A) New and used VOC-containing coating, diluent or cleaning solvent, including a coating mixed on the premises, shall be stored in a nonabsorbent, non-leaking container. Such a container shall be kept closed at all times except when the container is being filled, emptied or is otherwise actively in use;
 - (B) Spills and leaks of VOC-containing coating, diluent or cleaning solvent shall be minimized. Any leaked or spilled VOC-containing coating, diluent or cleaning solvent shall be absorbed and removed immediately;

- (C) Absorbent applicators, such as cloth and paper, which are moistened with a VOC-containing coating or solvent, shall be stored in a closed, nonabsorbent, non-leaking container for disposal or recycling; and
- (D) VOC-containing coating, diluent and cleaning solvent shall be conveyed from one location to another in a closed container or pipe.
- (6) Notwithstanding the requirements of this subsection, an owner or operator complying with this subsection by operating under a valid permit or order issued pursuant to subsection (cc)(2) or (cc)(3) of this section shall continue to operate according to the terms of such permit or order.
- (7) Exemptions and exceptions.
- (A) The requirements of this subsection shall not apply to any of the following activities, and the VOC emissions resulting from the following activities shall not be included in determinations pursuant to subdivisions (2) and (7)(G) of this subsection:
- (i) Coating and cleaning subject to one of the following subsections of this section: (l) through (r) and (hh) through (kk),
 - (ii) Coating applied in an automotive refinishing operation and related cleaning,
 - (iii) Coating and associated surface preparation and cleanup subject to section 22a-174-41 of the Regulations of Connecticut State Agencies,
 - (iv) Coating applied to test materials, test panels and coupons in research and development, quality control or performance testing,
 - (v) Coating applied in a shipbuilding and repair operation, provided that the operation is subject to 40 CFR 63 Subpart II,
 - (vi) Coating applied to space vehicles and related cleaning,
 - (vii) Coating applied to antique aerospace vehicles and related cleaning,
 - (viii) Coating applied with a hand-held aerosol can,
 - (ix) Adhesive, sealant, adhesive primer or sealant primer regulated by section 22a-174-44 of the Regulations of Connecticut State Agencies,
 - (x) Quality control or inspection dyes applied to metal parts,
 - (xi) Use of coatings containing VOC at concentrations less than 1.0 percent by weight,
 - (xii) Use of cleaning solvents containing VOC at concentrations less than 5.0 percent by weight, or
 - (xiii) Maintenance coating and related cleaning of fixtures, equipment and components that are not products manufactured by the facility or products coated on a contract basis.
- (B) The requirements of subdivisions (3) and (4) of this subsection shall not apply to the application of any of the following coatings to metal parts:

- (i) Stencil coating.
 - (ii) Safety-indicating coating.
 - (iii) Solid-film lubricant.
 - (iv) Electric-insulating and thermal-conducting coating.
 - (v) Magnetic data storage disk coating.
 - (vi) Plastic extruded onto metal parts to form a coating, or
 - (vii) Powder coating.
- (C) The requirements of subdivision (3) of this subsection shall not apply to the application of any of the following coatings to plastic parts:
- (i) Touch-up and repair coating.
 - (ii) Stencil coating applied on a clear or transparent substrate.
 - (iii) Clear or translucent coating.
 - (iv) Reflective coating applied to a highway cone.
 - (v) Mask coating less than 0.5 millimeters thick applied to an area less than 25 square inches.
 - (vi) EMI/RFI shield coating.
 - (vii) Any heparin-benzalkonium chloride (HBAC)-containing coating applied to a medical device, provided that the total of all HBAC-containing coatings used at a facility does not exceed 100 gallons per year, or
 - (viii) Powder coating.
- (D) The requirements of subdivision (3) of this subsection shall not apply to the application of any of the following coatings to automotive-transportation and business machine parts:
- (i) Vacuum metalizing coating.
 - (ii) Gloss reducer.
 - (iii) Texture coat.
 - (iv) Adhesion bonding primer.
 - (v) Electrostatic preparation coating.
 - (vi) Resist coating.
 - (vii) Stencil coating, or

- (viii) Powder coating.
- (E) The requirements of subdivisions (3) and (4) of this subsection shall not apply to the application of any of the following specialty coatings to an aerospace vehicle or component:
 - (i) Touch-up coating, or
 - (ii) Aerospace coating that the United States Department of Defense has designated as classified information in accordance with 32 CFR 2001.
- (F) The requirements of subdivision (4) of this subsection shall not apply to the following activities:
 - (i) Application of touch-up and repair coating to metal parts,
 - (ii) Application of textured finish to metal parts,
 - (iii) Application of powder coating to:
 - (I) Plastic parts,
 - (II) Automotive-transportation plastic parts, or
 - (III) Business machine plastic parts,
 - (iv) Airbrush application of coating to metal or plastic parts using no more than five gallons of coating per year,
 - (v) Use of air pollution control equipment to comply with subdivision (3) of this subsection, or
 - (vi) Application of specialty coatings listed in Table 20(s)-6a of this subsection.
- (G) An owner or operator with total potential VOC emissions from all miscellaneous metal and plastic parts coating, including emissions from related cleaning, limited by permit or order of the commissioner to 1,666 pounds or less in any calendar month, shall not be subject to the requirements of subdivision (3) of this subsection, provided that the owner or operator operates in compliance with such permit or order.
- (H) An owner or operator may use, in the aggregate, in any 12 consecutive months no more than 55 gallons of miscellaneous metal or plastic parts coating or coatings that exceed the VOC content limits or emission limits of subdivision (3) of this subsection provided the owner or operator maintains records of non-compliant coating use.
- (I) An owner or operator operating pursuant to an exemption or exception set out in this subdivision shall maintain records sufficient to verify the applicability of the exemption or exception.
- (8) Records.
 - (A) An owner or operator shall maintain records of information sufficient to determine compliance with the applicable requirements of this subsection, including, at a minimum, the following information for each calendar month:

- (i) Name and description of each coating and cleaning solvent,
 - (ii) VOC content of each coating and diluent, as applied, and the associated calculations,
 - (iii) VOC content of each coating or cleaning solvent, as supplied,
 - (iv) The amount of each coating and cleaning solvent:
 - (I) Purchased, or
 - (II) Used,
 - (v) A Material Safety Data Sheet, Environmental Data Sheet, Certified Product Data Sheet, or an equivalent data sheet for each coating and cleaning solvent,
 - (vi) Documentation of control device efficiency and capture efficiency, if applicable, using an applicable EPA reference method or alternate method as approved by the commissioner and the Administrator, and
 - (vii) Date and type of maintenance performed on air pollution control equipment, if applicable.
- (B) All records made pursuant to this subdivision shall be:
- (i) Made available to the commissioner to inspect and copy upon request, and
 - (ii) Maintained for five years from the date such record is created.
- (9) Compliance procedures.
- (A) The VOC content limits of Table 20(s)-1, 20(s)-2, 20(s)-3, 20(s)-4, 20(s)-5, 20(s)-6a or 20(s)-6b apply to the volume of coating as applied, determined using the following equation:
- $$\text{VOC Content} = (W_s - W_w - W_{es}) / (V_m - V_w - V_{es})$$
- Where: W_s = weight of volatile compounds in grams
 W_w = weight of water in grams
 W_{es} = weight of exempt compounds in grams
 V_m = volume of coating in liters
 V_w = volume of water in liters
 V_{es} = volume of exempt compounds in liters
- (B) The VOC emission rate limits of Table 20(s)-7, 20(s)-8, 20(s)-9, or 20(s)-10 apply to the mass of VOC emitted per volume of coating solids, as applied.
- (C) To determine the properties of a coating or components thereof in order to perform the calculations required pursuant to subparagraph (A) of this subdivision or to verify calculations based on the manufacturer's formulation data, the VOC and solids content of all coatings shall be determined using 40 CFR 60, Appendix A, Reference Method 24 or an equivalent method. In the case of a dispute, the VOC content determined using Reference Method 24 shall control, unless a person is able to demonstrate to the

satisfaction of the commissioner and the Administrator that the manufacturer's formulation data are correct.

- (D) For red, yellow or black automotive coatings, except touch-up and repair coatings, the applicable VOC content limit or emission rate shall be the limit of Table 20(s)-3 or 20(s)-9, as applicable, multiplied by 1.15.
- (E) Where a VOC content limit or emissions rate is provided in metric units and equivalent English units, the limit or rate in metric units defines the standard. The English units are provided for information only.
- (F) A miscellaneous metal or plastic parts coating shall be defined and categorized based on the manufacturer's representations as set out on the container or label or in information provided by the manufacturer of such a miscellaneous metal or plastic parts coating.
- (10) Limitations on potential to emit.
- (A) An owner or operator may submit a request to the commissioner for an order or permit to limit potential emissions from all miscellaneous metal and plastic parts coating at the premises to a monthly limit of 1,666 pounds of VOC; or
- (B) An owner or operator issued a permit or order prior to January 1, 2013 pursuant to former section 22a-174-20(s)(7) of the Regulations of Connecticut State Agencies may:
- (i) Continue after January 1, 2013 to conduct miscellaneous metal parts coating in compliance with such a permit or order.
- (ii) Submit a request to the commissioner to modify the order or permit to include all miscellaneous metal and plastic parts coating at the premises in the monthly limit of 1,666 pounds of VOC, or
- (iii) Submit a request to the commissioner to revoke the order or permit.

<u>Coating Category</u>	<u>Air Dried</u>		<u>Baked</u>	
	<u>g VOC/ liter coating</u>	<u>lbs VOC/ gal coating</u>	<u>g VOC/ liter coating</u>	<u>lbs VOC/ gal coating</u>
<u>General one-component</u>	<u>340</u>	<u>2.8</u>	<u>280</u>	<u>2.3</u>
<u>General multi-component</u>	<u>340</u>	<u>2.8</u>	<u>280</u>	<u>2.3</u>
<u>Camouflage</u>	<u>420</u>	<u>3.5</u>	<u>420</u>	<u>3.5</u>
<u>Electric-insulating varnish</u>	<u>420</u>	<u>3.5</u>	<u>420</u>	<u>3.5</u>
<u>Etching filler</u>	<u>420</u>	<u>3.5</u>	<u>420</u>	<u>3.5</u>
<u>Extreme high-gloss</u>	<u>420</u>	<u>3.5</u>	<u>360</u>	<u>3.0</u>
<u>Extreme performance</u>	<u>420</u>	<u>3.5</u>	<u>360</u>	<u>3.0</u>
<u>Heat-resistant</u>	<u>420</u>	<u>3.5</u>	<u>360</u>	<u>3.0</u>
<u>High performance architectural</u>	<u>740</u>	<u>6.2</u>	<u>740</u>	<u>6.2</u>
<u>High temperature</u>	<u>420</u>	<u>3.5</u>	<u>420</u>	<u>3.5</u>
<u>Metallic</u>	<u>420</u>	<u>3.5</u>	<u>420</u>	<u>3.5</u>
<u>Mold-seal</u>	<u>420</u>	<u>3.5</u>	<u>420</u>	<u>3.5</u>
<u>Pan backing</u>	<u>420</u>	<u>3.5</u>	<u>420</u>	<u>3.5</u>

<u>Prefabricated architectural multi-component</u>	<u>420</u>	<u>3.5</u>	<u>280</u>	<u>2.3</u>
<u>Prefabricated architectural one-component</u>	<u>420</u>	<u>3.5</u>	<u>280</u>	<u>2.3</u>
<u>Pretreatment coating</u>	<u>420</u>	<u>3.5</u>	<u>420</u>	<u>3.5</u>
<u>Repair and touch-up</u>	<u>420</u>	<u>3.5</u>	<u>360</u>	<u>3.0</u>
<u>Silicone release</u>	<u>420</u>	<u>3.5</u>	<u>420</u>	<u>3.5</u>
<u>Solar-absorbent</u>	<u>420</u>	<u>3.5</u>	<u>360</u>	<u>3.0</u>
<u>Vacuum-metalizing</u>	<u>420</u>	<u>3.5</u>	<u>420</u>	<u>3.5</u>
<u>Drum coating, new, exterior</u>	<u>340</u>	<u>2.8</u>	<u>340</u>	<u>2.8</u>
<u>Drum coating, new, interior</u>	<u>420</u>	<u>3.5</u>	<u>420</u>	<u>3.5</u>
<u>Drum coating, reconditioned, exterior</u>	<u>420</u>	<u>3.5</u>	<u>420</u>	<u>3.5</u>
<u>Drum coating, reconditioned, interior</u>	<u>500</u>	<u>4.2</u>	<u>500</u>	<u>4.2</u>

Table 20(s)-2		
Plastic Parts Coating VOC Content Limits		
<u>Coating Category</u>	<u>g VOC/liter coating</u>	<u>lbs VOC/gal coating</u>
<u>General one-component</u>	<u>280</u>	<u>2.3</u>
<u>General multi-component</u>	<u>420</u>	<u>3.5</u>
<u>Electric dissipating coatings and shock-free coating</u>	<u>800</u>	<u>6.7</u>
<u>Extreme performance multi-component</u>	<u>420</u>	<u>3.5</u>
<u>Metallic</u>	<u>420</u>	<u>3.5</u>
<u>Mold-seal</u>	<u>760</u>	<u>6.3</u>
<u>Multi-colored coating</u>	<u>680</u>	<u>5.7</u>
<u>Optical coating</u>	<u>800</u>	<u>6.7</u>
<u>Vacuum-metalizing</u>	<u>800</u>	<u>6.7</u>

Table 20(s)-3		
Automotive-Transportation Plastic Parts Coating VOC Content Limits		
<u>Coating Category</u>	<u>g VOC/liter coating</u>	<u>lbs VOC/gal coating</u>
<u>I. High bake coatings – interior and exterior parts</u>		
<u>Flexible primer</u>	<u>540</u>	<u>4.5</u>
<u>Non-flexible primer</u>	<u>420</u>	<u>3.5</u>
<u>Base coat</u>	<u>520</u>	<u>4.3</u>
<u>Clear coat</u>	<u>480</u>	<u>4.0</u>
<u>Non-base coat/clear coat</u>	<u>520</u>	<u>4.3</u>
<u>II. Low bake/air dried coatings – exterior parts</u>		
<u>Primer</u>	<u>580</u>	<u>4.8</u>
<u>Base coat</u>	<u>600</u>	<u>5.0</u>
<u>Clearcoat</u>	<u>540</u>	<u>4.5</u>
<u>Non-base coat/clearcoat</u>	<u>600</u>	<u>5.0</u>
<u>III. Low bake/air dried coatings – interior parts</u>		
	<u>600</u>	<u>5.0</u>
<u>IV. Touchup and repair coating</u>		
	<u>620</u>	<u>5.2</u>

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Table 20(s)-4		
Business Machine Plastic Parts Coating VOC Content Limits		
Coating Category	g VOC/liter coating	lbs VOC/gal coating
<u>I. Primers</u>	<u>350</u>	<u>2.9</u>
<u>II. Topcoat</u>	<u>350</u>	<u>2.9</u>
<u>III. Texture coat</u>	<u>350</u>	<u>2.9</u>
<u>IV. Fog coat</u>	<u>260</u>	<u>2.2</u>
<u>V. Touchup and repair</u>	<u>350</u>	<u>2.9</u>

Table 20(s)-5		
Motor Vehicle Materials VOC Content Limits		
Coating Category	g VOC/liter coating	lbs VOC/gal coating
<u>Motor vehicle cavity wax</u>	<u>650</u>	<u>5.4</u>
<u>Motor vehicle sealer</u>	<u>650</u>	<u>5.4</u>
<u>Motor vehicle deadener</u>	<u>650</u>	<u>5.4</u>
<u>Motor vehicle gasket/gasket sealing material</u>	<u>200</u>	<u>1.7</u>
<u>Motor vehicle underbody coating</u>	<u>650</u>	<u>5.4</u>
<u>Motor vehicle trunk interior coating</u>	<u>650</u>	<u>5.4</u>
<u>Motor vehicle bedliner coating</u>	<u>200</u>	<u>1.7</u>
<u>Motor vehicle lubricating wax/compound</u>	<u>700</u>	<u>5.8</u>

Table 20(s)-6a	
Aerospace Specialty Coating VOC Content Limits	
Coating type	g VOC/liter coating
<u>Ablative coating</u>	<u>600</u>
<u>Adhesion promoter</u>	<u>890</u>
<u>Adhesive bonding primers:</u>	
<u>Cured at 250°F or below</u>	<u>850</u>
<u>Cured above 250°F</u>	<u>1030</u>
<u>Adhesives:</u>	
<u>Commercial interior adhesive</u>	<u>760</u>
<u>Cyanoacrylate adhesive</u>	<u>1,020</u>
<u>Fuel tank adhesive</u>	<u>620</u>
<u>Nonstructural adhesive</u>	<u>360</u>
<u>Rocket motor bonding adhesive</u>	<u>890</u>
<u>Rubber-based adhesive</u>	<u>850</u>
<u>Structural autoclavable adhesive</u>	<u>60</u>
<u>Structural nonautoclavable adhesive</u>	<u>850</u>
<u>Aerospace high-temperature coating</u>	<u>850</u>
<u>Antichafe coating</u>	<u>660</u>
<u>Bearing coating</u>	<u>620</u>
<u>Caulking and smoothing compounds</u>	<u>850</u>
<u>Chemical agent-resistant coating</u>	<u>550</u>
<u>Clear coating</u>	<u>720</u>

<u>Commercial exterior aerodynamic structure primer</u>	<u>650</u>
<u>Compatible substrate primer</u>	<u>780</u>
<u>Corrosion prevention compound</u>	<u>710</u>
<u>Cryogenic flexible primer</u>	<u>645</u>
<u>Cryoprotective coating</u>	<u>600</u>
<u>Dry lubricative material</u>	<u>880</u>
<u>Electric or radiation-effect coating</u>	<u>800</u>
<u>Electrostatic discharge and electromagnetic interference (EMI) coating</u>	<u>800</u>
<u>Elevated-temperature Skydrol-resistant commercial primer</u>	<u>740</u>
<u>Epoxy polyamide topcoat</u>	<u>660</u>
<u>Fire-resistant interior coating</u>	<u>800</u>
<u>Flexible primer</u>	<u>640</u>
<u>Flight-test coatings:</u>	
<u>Missile or single use aircraft</u>	<u>420</u>
<u>All other</u>	<u>840</u>
<u>Fuel-tank coating</u>	<u>720</u>
<u>Insulation covering</u>	<u>740</u>
<u>Intermediate release coating</u>	<u>750</u>
<u>Lacquer</u>	<u>830</u>
<u>Maskants:</u>	
<u>Bonding maskant</u>	<u>1,230</u>
<u>Critical use and line sealer maskant</u>	<u>1,020</u>
<u>Seal coat maskant</u>	<u>1,230</u>
<u>Metallized epoxy coating</u>	<u>740</u>
<u>Mold release</u>	<u>780</u>
<u>Optical anti-reflective coating</u>	<u>750</u>
<u>Part marking coating</u>	<u>850</u>
<u>Pretreatment coating</u>	<u>780</u>
<u>Rain erosion-resistant coating</u>	<u>850</u>
<u>Rocket motor nozzle coating</u>	<u>660</u>
<u>Scale inhibitor</u>	<u>880</u>
<u>Screen print ink</u>	<u>840</u>
<u>Sealants:</u>	
<u>Extrudable/rollable/brushable sealant</u>	<u>280</u>
<u>Sprayable sealant</u>	<u>600</u>
<u>Silicone insulation material</u>	<u>850</u>
<u>Solid film lubricant</u>	<u>880</u>
<u>Specialized function coating</u>	<u>890</u>
<u>Temporary protective coating</u>	<u>320</u>
<u>Thermal control coating</u>	<u>800</u>
<u>Wet fastener installation coating</u>	<u>675</u>
<u>Wing coating</u>	<u>850</u>

Coating type	g VOC/liter coating
<u>Primer – general aviation rework facilities</u>	<u>540</u>
<u>Exterior primer – large commercial aircraft components</u>	<u>650</u>
<u>Exterior primer – fully assembled, large commercial aircraft</u>	<u>650</u>
<u>Primer</u>	<u>350</u>
<u>Topcoat</u>	<u>420</u>
<u>Topcoat – general aviation rework facilities</u>	<u>540</u>
<u>Self-priming topcoat</u>	<u>420</u>
<u>Self-priming topcoat – general aviation rework facilities</u>	<u>540</u>
<u>Type I chemical milling maskant</u>	<u>622</u>
<u>Type II chemical milling maskant</u>	<u>160</u>

Coating Category	Air Dried		Baked	
	g VOC/ liter solids	lb VOC/ gal solids	g VOC/ liter solids	lb VOC/ gal solids
<u>General one-component</u>	<u>540</u>	<u>4.52</u>	<u>400</u>	<u>3.35</u>
<u>General multi-component</u>	<u>540</u>	<u>4.52</u>	<u>400</u>	<u>3.35</u>
<u>Camouflage</u>	<u>800</u>	<u>6.67</u>	<u>800</u>	<u>6.67</u>
<u>Electric-insulating varnish</u>	<u>800</u>	<u>6.67</u>	<u>800</u>	<u>6.67</u>
<u>Etching filler</u>	<u>800</u>	<u>6.67</u>	<u>800</u>	<u>6.67</u>
<u>Extreme high-gloss</u>	<u>800</u>	<u>6.67</u>	<u>610</u>	<u>5.06</u>
<u>Extreme performance</u>	<u>800</u>	<u>6.67</u>	<u>610</u>	<u>5.06</u>
<u>Heat-resistant</u>	<u>800</u>	<u>6.67</u>	<u>610</u>	<u>5.06</u>
<u>High performance architectural</u>	<u>4560</u>	<u>38</u>	<u>4560</u>	<u>38</u>
<u>High temperature</u>	<u>800</u>	<u>6.67</u>	<u>800</u>	<u>6.67</u>
<u>Metallic</u>	<u>800</u>	<u>6.67</u>	<u>800</u>	<u>6.67</u>
<u>Mold-seal</u>	<u>800</u>	<u>6.67</u>	<u>800</u>	<u>6.67</u>
<u>Pan backing</u>	<u>800</u>	<u>6.67</u>	<u>800</u>	<u>6.67</u>
<u>Prefabricated architectural multi-component</u>	<u>800</u>	<u>6.67</u>	<u>400</u>	<u>3.35</u>
<u>Prefabricated architectural one-component</u>	<u>800</u>	<u>6.67</u>	<u>400</u>	<u>3.35</u>
<u>Pretreatment coating</u>	<u>800</u>	<u>6.67</u>	<u>800</u>	<u>6.67</u>
<u>Silicone release</u>	<u>800</u>	<u>6.67</u>	<u>800</u>	<u>6.67</u>
<u>Solar-absorbent</u>	<u>800</u>	<u>6.67</u>	<u>610</u>	<u>5.06</u>
<u>Vacuum-metalizing</u>	<u>800</u>	<u>6.67</u>	<u>800</u>	<u>6.67</u>
<u>Drum coating, new, exterior</u>	<u>540</u>	<u>4.52</u>	<u>540</u>	<u>4.52</u>
<u>Drum coating, new, interior</u>	<u>800</u>	<u>6.67</u>	<u>800</u>	<u>6.67</u>
<u>Drum coating, reconditioned, exterior</u>	<u>800</u>	<u>6.67</u>	<u>800</u>	<u>6.67</u>
<u>Drum coating, reconditioned, interior</u>	<u>1170</u>	<u>9.78</u>	<u>1170</u>	<u>9.78</u>

Table 20(s)-8		
Plastic Parts Coating VOC Emission Rate Limits		
<u>Coating Category</u>	<u>g VOC/liter solids</u>	<u>lbs VOC/gal solids</u>
<u>General one-component</u>	<u>400</u>	<u>3.35</u>
<u>General multi-component</u>	<u>800</u>	<u>6.67</u>
<u>Electric dissipating coatings and shock-free coatings</u>	<u>8960</u>	<u>74.7</u>
<u>Extreme performance multi-component</u>	<u>800</u>	<u>6.67</u>
<u>Metallic</u>	<u>800</u>	<u>6.67</u>
<u>Mold-seal</u>	<u>5240</u>	<u>43.7</u>
<u>Multi-colored coatings</u>	<u>3040</u>	<u>25.3</u>
<u>Optical coatings</u>	<u>8960</u>	<u>74.7</u>
<u>Vacuum-metalizing</u>	<u>8960</u>	<u>74.7</u>

Table 20(s)-9		
Automotive-Transportation Plastic Parts Coating VOC Emission Rate Limits		
<u>Coating Category</u>	<u>g VOC/liter solids</u>	<u>lbs VOC/gal solids</u>
<u>I. High bake coatings – interior and exterior parts</u>		
<u>Flexible primer</u>	<u>1390</u>	<u>11.58</u>
<u>Non-flexible primer</u>	<u>800</u>	<u>6.67</u>
<u>Base coat</u>	<u>1240</u>	<u>10.34</u>
<u>Clear coat</u>	<u>1050</u>	<u>8.76</u>
<u>Non-base coat/clear coat</u>	<u>1240</u>	<u>10.34</u>
<u>II. Low bake/air dried coatings – exterior parts</u>		
<u>Primer</u>	<u>1660</u>	<u>13.8</u>
<u>Base coat</u>	<u>1870</u>	<u>15.59</u>
<u>Clearcoat</u>	<u>1390</u>	<u>11.58</u>
<u>Non-base coat/clearcoat</u>	<u>1870</u>	<u>15.59</u>
<u>III. Low bake/air dried coatings – interior parts</u>		
	<u>1870</u>	<u>15.59</u>
<u>IV. Touch-up and repair coating</u>		
	<u>2130</u>	<u>17.72</u>

Table 20(s)-10		
Business Machine Plastic Parts Coating VOC Emission Rate Limits		
<u>Coating Category</u>	<u>g VOC/liter solids</u>	<u>lbs VOC/gal solids</u>
<u>I. Primers</u>	<u>570</u>	<u>4.80</u>
<u>II. Topcoat</u>	<u>570</u>	<u>4.80</u>
<u>III. Texture coat</u>	<u>570</u>	<u>4.80</u>
<u>IV. Fog coat</u>	<u>380</u>	<u>3.14</u>
<u>V. Touchup and repair</u>	<u>570</u>	<u>4.80</u>

Sec. 2. Subdivision (1) of subsection (aa) of section 22a-174-20 of the Regulations of Connecticut State Agencies is amended to read as follows:

(aa) Record keeping requirements and test methods.

(1) The owner or “operator” of any premise subject to the provisions of subsections (m) through [(s)] (r) inclusive and subsection (v) of section 22a-174-20 shall maintain daily records of all coatings and diluents used. Such records shall be kept for each individual machine, operation or coating line. The records must contain the information required below.

- (A) description of the coating including the coating name and the coating density in pounds per gallon;
- (B) “volatile organic compound” content by weight;
- (C) water and exempt volatile organic compound content by weight;
- (D) non-volatile content by volume and by weight;
- (E) amount of each coating used in gallons;
- (F) total amount of diluent used for each coating in pounds and in gallons.

Sec. 3. Subdivisions (2) and (3) of subsection (cc) of section 22a-174-20 of the Regulations of Connecticut State Agencies are amended to read as follows:

[(cc)(2)] (2) The implementation of an alternative emission reduction plan instead of compliance with the [“]emissions limitation[”] prescribed in any one of subsections (m) through (v), inclusive, [and] (ee) or (ff) to (kk), inclusive, of this section [must] shall be expressly approved by the [“Commissioner”] commissioner through the issuance of a permit or an order in accordance with the provisions of section 22a-174-12 of the Regulations of Connecticut State Agencies and approved by the [“administrator”] Administrator in accordance with the provisions of 42 [U.S.C.] USC 7401-7642. After approval, any emissions in excess of those established for each emission source under the plan will be a violation of these regulations.

[(cc)(3)] (3) Where it can be shown to the satisfaction of the [“Commissioner”] commissioner that an emission source cannot be controlled to comply with any one of subsections (m) through (v), inclusive, [and] (ee) or (ff) to (kk), inclusive, of this section for reasons of technological and economic feasibility, the [“Commissioner”] commissioner may by permit or order accept a lesser degree of control upon the submission of satisfactory evidence that the [“]stationary source[”] owner has applied [“]Reasonably Available Control Technology[”] and has a plan to develop the technologies necessary to comply with [the above subsections] the applicable subsection of subsections (m) to (v), inclusive, (ee) or (ff) to (kk), inclusive, of this section and such action is approved by the [“administrator”] Administrator in accordance with the provisions of 42 [U.S.C.] USC 7401-7642.

Sec. 4. Section 22a-174-20(ii)(3)(A) of the Regulations of Connecticut State Agencies is amended to read as follows:

- (A) The requirements of this subsection shall not apply to the use of cleaning solvent as follows:
- (i) In janitorial cleaning,
 - (ii) At an aerospace manufacturing and rework operation or a wood furniture coating operation in accordance with an order or a permit issued pursuant to sections 22a-174-32(e) and 22a-174-20(cc) of the Regulations of Connecticut State Agencies,
 - (iii) To perform general solvent cleaning in accordance with an order issued pursuant to section 22a-174-20(ee) of the Regulations of the Connecticut State Agencies,
 - (iv) At any aerospace manufacturing and rework facility, provided that cleaning solvent is used in accordance with the requirements of 40 CFR 63.744, inclusive of exemptions,
 - (v) As surface preparation or cleanup solvent in accordance with section 22a-174-44 of the Regulations of Connecticut State Agencies,
 - (vi) Where the cleaning solvent is regulated pursuant to section 22a-174-40 of the Regulations of Connecticut State Agencies,
 - (vii) To perform industrial solvent cleaning where such cleaning or cleaning solvent is subject to one of the following subsections of this section: (l) through (y), (ff) through (hh), or (ij),
 - (viii) In cleaning, including surface preparation prior to coating, necessary to meet a standard or specification issued or approved by the United States Department of Defense, Federal Aviation Administration or other federal government entity. Any person claiming exemption pursuant to this clause shall maintain records of the standard or specification,
 - (ix) Associated with research and development,
 - (x) Associated with quality control or laboratory testing[,] of coatings, inks or adhesives.
 - (xi) Associated with medical device manufacturing,
 - (xii) Associated with pharmaceutical manufacturing,
 - (xiii) That exceeds the applicable limit of subdivision (4)(A) of this subsection where the quantity used does not exceed 55 gallons per any twelve-month rolling aggregate. Any person claiming exemption pursuant to this clause shall record and maintain monthly records sufficient to demonstrate compliance with this exemption, or
 - (xiv) That exceeds the applicable limit of subdivision (4)(A) of this subsection, if approved by the commissioner and the Administrator. Any request for approval shall be made in writing to the commissioner and Administrator and shall include a description of the cleaning solvent and its VOC content, an explanation of why the cleaning solvent is necessary, quantification of the amount of the VOC that will be emitted as a result of the use of the noncompliant cleaning solvent and the time period over which the noncompliant solvent will be used.

Sec. 5. Section 22a-174-20 of the Regulations of Connecticut State Agencies is amended by the addition of new subsection (kk), as follows:

(NEW)

(kk) Pleasure craft coatings

- (1) Definitions. For the purposes of this section, the following definitions apply:
- (A) “Airless spray application” means a coating spray application system using high fluid pressure, without compressed air, to atomize the coating;
 - (B) “Air-assisted airless spray application” means a coating spray application system using fluid pressure to atomize the coating and low pressure air to adjust the shape of the spray pattern;
 - (C) “Antifouling coating” means a coating applied to the underwater portion of a pleasure craft to prevent or reduce the attachment of biological organisms;
 - (D) “Antifouling sealer or tie coat” means a coating applied over biocidal antifouling coating for the purpose of preventing release of biocides into the environment or to promote adhesion between an antifouling coating and a primer or another antifouling coating;
 - (E) “As applied” means the composition of coating, excluding water and exempt compounds, at the time it is applied to a surface, including any solvent, catalyst or other substance added to the coating;
 - (F) “Capture efficiency” means the ratio of VOC emissions delivered to the control device to the total VOC emissions resulting from pleasure craft coating and related cleaning, expressed as a percentage;
 - (G) “Control device efficiency” means the ratio of VOC emissions recovered or destroyed by the control device to the total VOC emissions that are introduced into the device, expressed as a percentage;
 - (H) “Electrostatic application” means a method of applying coating particles or coating droplets to a grounded surface by electrically charging such particles or droplets;
 - (I) “Exempt compound” means a carbon compound excluded from the definition of “volatile organic compound” as defined in section 22a-174-1 of the Regulations of Connecticut State Agencies;
 - (J) “Extreme high-gloss coating” means a coating that, when tested by American Society for Testing Material Test Method D523-08, Standard Test Method for Specular Gloss, shows a reflectance of 90 or more on a 60 degree meter;
 - (K) “Finish primer or surfacer” means a coating applied with a wet film thickness of less than 10 millimeters prior to the application of a topcoat for purposes of providing corrosion resistance, adhesion of subsequent coatings, a moisture barrier or promotion of a uniform surface necessary for filling in surface imperfections;
 - (L) “Flow coating” means a non-atomized technique of applying coating in a fan pattern to a substrate using a fluid nozzle with no air supplied to the nozzle;

- (M) “High build primer or surfacer” means a coating applied with a wet film thickness of 10 millimeters or more prior to the application of a topcoat for purposes of providing corrosion resistance, adhesion of subsequent coatings, a moisture barrier or promotion of a uniform surface necessary for filling in surface imperfections;
 - (N) “High gloss coating” means a coating that, when tested by American Society for Testing Material Test Method D523-08, Standard Test Method for Specular Gloss, shows a reflectance of 85 or more on a 60 degree meter;
 - (O) “HVLP spray application” means to apply a coating using a coating application system that uses lower air pressure and higher volume than conventional air atomized spray systems, where the manufacturer has represented that the system is HVLP by affixing a permanent label or through representations on the packaging or other product literature;
 - (P) “Overall control efficiency” means the product of the capture efficiency and the control device efficiency;
 - (Q) “Pleasure craft” means any marine or freshwater vessel manufactured or operated primarily for recreational purposes;
 - (R) “Pleasure craft coating” means any marine coating, except unsaturated polyester resin (fiberglass), applied to a pleasure craft or to parts and components of a pleasure craft;
 - (S) “Pretreatment wash primer” means a coating, containing at least 0.1 percent acid by weight and no more than 25 percent solids by weight, that is used to provide surface etching and is applied directly to fiberglass and metal surfaces to provide corrosion resistance and adhesion of subsequent coatings;
 - (T) “Related cleaning” means the removal of uncured coatings, coating residue, and contaminants from:
 - (i) Pleasure craft or parts and components of pleasure craft prior to the application of coatings,
 - (ii) Pleasure craft or parts and components of pleasure craft between coating applications, or
 - (iii) Transfer lines, storage tanks, spray booths, and coating application equipment; and
 - (U) "Transfer efficiency" means the portion of coating solids that adheres to the pleasure craft surface during the application process, expressed as a percentage of the total volume of coating solids delivered by the applicator.
- (2) Applicability.
- (A) Except as provided in subdivision (3) of this subsection, the provisions of this subsection apply to the owner or operator of any marina, boat yard, or other premises where pleasure craft coating is applied for commercial purposes at the direction of such owner or operator, if:
 - (i) Such owner or operator was subject to subsection (s) of this section prior to January 1, 2013, or

- (ii) Such owner or operator purchases for use in all pleasure craft coating and related cleaning at the premises 855 gallons or more of coatings and cleaning solvents in aggregate per rolling 12-month period;
 - (B) An owner or operator subject to this subsection shall:
 - (i) For a source operating prior to January 1, 2013, comply with the requirements of this subsection no later than January 1, 2013, or
 - (ii) For a source that commences operation after January 1, 2013, comply with the requirements of this subsection upon commencing operation; and
 - (C) Any owner or operator subject to this subsection shall remain subject to this subsection.
 - (D) An owner or operator of any marina, boat yard, or other premises where pleasure craft coating is applied for commercial purposes who does not meet the applicability thresholds of subparagraph (A) of this subdivision shall maintain either material purchase or actual usage records to verify that this subsection does not apply to such owner or operator.
- (3) Exemptions and exceptions.
- (A) The requirements of this subsection shall not apply to any of the following activities, and the VOC emissions resulting from the following activities shall not be included in determinations pursuant to subdivision (2) or (4)(E) of this subsection:
 - (i) Coating and cleaning subject to one of the following subsections of this section: (l) through (s) and (hh) through (jj),
 - (ii) Coating and associated surface preparation and cleanup subject to section 22a-174-41 of the Regulations of Connecticut State Agencies,
 - (iii) Coating applied with a hand-held aerosol can,
 - (iv) Application of adhesive, sealant, adhesive primer or sealant primer regulated by section 22a-174-44 of the Regulations of Connecticut State Agencies,
 - (v) Coating applied to test materials, test panels and coupons in research and development, quality control or performance testing,
 - (vi) Use of coatings containing VOC at concentrations less than 1.0 percent by weight, or
 - (vii) Use of cleaning solvents containing VOC at concentrations less than 5.0 percent by weight.
 - (B) An owner or operator operating pursuant to an exception or exemption provided in subparagraph (A) of this subdivision shall maintain records sufficient to verify the applicability of the exception or exemption.
 - (C) An owner or operator may use in aggregate in any 12 consecutive months no more than 55 gallons of pleasure craft coatings that exceed the VOC content limits or emission limits of subdivision (4) of this subsection.

(4) On and after January 1, 2013, no owner or operator of a pleasure craft coating operation shall apply any coating, inclusive of any VOC-containing material added to the original coating supplied by the manufacturer, unless the owner or operator controls emissions of VOCs in accordance with subparagraph (A), (B), (C), (D) or (E) of this subdivision. If more than one emission limit or emission rate applies in a particular situation, then the least restrictive limit or rate shall apply. An owner or operator shall:

- (A) Use only coatings that have an as applied VOC content no greater than the applicable level in Table 20(kk)-1;
- (B) Use a combination of low-VOC coatings and add-on air pollution control equipment to achieve a VOC emission rate no greater than the applicable level in Table 20(kk)-2;
- (C) Install, operate and maintain according to the manufacturer's recommendations air pollution control equipment with an overall control efficiency of at least 90%;
- (D) Use an alternative means, achieving a level of control equivalent to subparagraph (A), (B) or (C) of this subdivision, as requested from and approved by the commissioner, in accordance with subsection (cc) of this section; or
- (E) Limit the total potential VOC emissions from all pleasure craft coating operations and related cleaning by permit or order of the commissioner to 1,666 pounds or less in any calendar month.

(5) Application methods. Except as provided in subdivision (3) of this subsection, an owner or operator shall not apply a VOC-containing coating to a pleasure craft or to a part or component of a pleasure craft unless the coating is applied by one of the methods identified in subparagraphs (A) through (F) of this subdivision using equipment operated in accordance with the specifications of the equipment manufacturer:

- (A) Electrostatic application;
- (B) HVLP spray application;
- (C) Airless spray application;
- (D) Air-assisted airless spray application;
- (E) Hand application; or
- (F) Any other coating application method capable of achieving a transfer efficiency equivalent to or better than that provided by HVLP spray application. Any coating operation using an application method pursuant to this subparagraph shall maintain records demonstrating the transfer efficiency achieved.
- (G) The requirements of this subdivision shall not apply to the application of an extreme high gloss coating.

(6) Work practices. Each owner or operator shall use the following work practices:

- (A) New and used VOC-containing coating, diluent or cleaning solvent, including a coating mixed on the premises, shall be stored in a nonabsorbent, non-leaking container. Such a container shall be kept closed at all times except when the container is being filled, emptied or is otherwise actively in use;

- (B) Spills and leaks of VOC-containing coating, diluent or cleaning solvent shall be minimized. Any leaked or spilled VOC-containing coating, diluent or cleaning solvent shall be contained, absorbed and removed immediately;
 - (C) Absorbent applicators, such as cloth and paper, which are moistened with a VOC-containing coating or solvent, shall be stored in a closed, nonabsorbent, non-leaking container for disposal or recycling; and
 - (D) VOC-containing coating, diluent and cleaning solvent shall be conveyed from one location to another in a closed container or pipe.
- (7) Records.
- (A) Except as provided in subparagraphs (B) and (C), an owner or operator shall maintain records of information sufficient to determine compliance with the applicable requirements of this subsection, including, at a minimum, the following information for each calendar month:
 - (i) Name and description of each coating and cleaning solvent,
 - (ii) VOC content of each coating and diluent, as applied, and the associated calculations,
 - (iii) VOC content of each coating or cleaning solvent, as supplied,
 - (iv) The amount of each coating and cleaning solvent:
 - (I) Purchased, or
 - (II) Used,
 - (v) A Material Safety Data Sheet, Environmental Data Sheet, Certified Product Data Sheet, or an equivalent data sheet for each coating and cleaning solvent,
 - (vi) Documentation of control device efficiency and capture efficiency, if applicable, using an applicable EPA reference method or alternate method as approved by the commissioner and the Administrator, and
 - (vii) Date and type of maintenance performed on air pollution control equipment, if applicable.
 - (B) All records made pursuant to this subdivision shall be:
 - (i) Made available to the commissioner to inspect and copy upon request, and
 - (ii) Maintained for five years from the date such record is created.
- (8) Compliance procedures.
- (A) The VOC content limits of Table 20(kk)-1 apply to the volume of coating as applied, determined using the following equation:

$$VOC\ Content = (W_s - W_w - W_{es}) / (V_m - V_w - V_{es})$$

Where: W_s = weight of volatile compounds in grams
 W_w = weight of water in grams
 W_{es} = weight of exempt compounds in grams
 V_m = volume of coating in liters
 V_w = volume of water in liters
 V_{es} = volume of exempt compounds in liters

- (B) The VOC emission rate limits of Table 20(kk)-2 apply to the mass of VOC emitted per volume of coating solids, as applied.
- (C) To determine the properties of a coating or components thereof in order to perform the calculations required pursuant to subparagraph (A) of this subdivision or to verify calculations based on the manufacturer's formulation data, the VOC and solids content of all coatings shall be determined using 40 CFR 60, Appendix A, Reference Method 24 or an equivalent method. In the case of a dispute, the VOC content determined using Reference Method 24 shall control, unless a person is able to demonstrate to the satisfaction of the commissioner and the Administrator that the manufacturer's formulation data are correct.
- (D) Where a VOC content limit or emissions rate is provided in metric units and equivalent English units, the limit or rate in metric units defines the standard. The English units are provided for information only.
- (E) A pleasure craft coating shall be defined and categorized based on the manufacturer's representations as set out on the container or label or in information provided by the manufacturer of such a pleasure craft coating.

Table 20(kk)-1 Pleasure Craft Coating VOC Content Limits		
Coating Category	g VOC/liter coating	lbs VOC/gal coating
Extreme high-gloss coating	600	5.0
High gloss coating	420	3.5
Pretreatment wash primer	780	6.5
Finish primer or surfacer	Effective until December 31, 2015: 600 Effective January 1, 2016: 420	Effective until December 31, 2015: 5.0 Effective January 1, 2016: 3.5
High build primer or surfacer	340	2.8
Antifouling coating – aluminum substrate	560	4.7
Antifouling coating – all other substrates	400	3.3
Antifouling sealant or tie coat	420	3.5
All other pleasure craft surface coatings for metal or plastic	420	3.5

Table 20(kk)-2 Pleasure Craft Surface Coating VOC Emission Rate Limits		
Coating Category	g VOC/liter solids	lbs VOC/gal solids
Extreme high-gloss coating	1100	9.2
High gloss coating	800	6.7
Pretreatment wash primer	6670	55.6
Finish primer or surfacer	Effective until December 31, 2015: 1870 Effective January 1, 2016: 800	Effective until December 31, 2015: 15.59 Effective January 1, 2016: 6.7
High build primer or surfacer	550	4.6
Antifouling coating – aluminum substrate	1530	12.8
Antifouling coating – all other substrates	764	6.4
Antifouling sealer or tie coat	800	6.7
All other pleasure craft surface coatings for metal or plastic	800	6.7

Statement of purpose

The main purpose of this proposal is to enhance existing and add new requirements to control volatile organic compound (VOC) emissions from two types of surface coating operations. VOC emissions are a precursor to ground-level ozone, a harmful air pollutant. The U.S. Environmental Protection Agency (EPA) has designated the entire state as nonattainment for the 2008 ozone national ambient air quality standard (NAAQS) and has initiated the statutorily required review of the NAAQS to be completed in 2013. The proposed limitations on VOC emissions will assist Connecticut to attain and maintain the federal ozone NAAQS.

The Department of Energy and Environmental Protection (DEEP) currently regulates VOC emissions from metal parts coating under section 22a-174-20 of the Regulations of Connecticut State Agencies (RCSA). In response to EPA guidance, DEEP is proposing to add more stringent VOC control requirements for metal parts and to broaden the applicability to include coating of plastic parts. (Section 1)

Also in accord with EPA guidance, DEEP is proposing new requirements for addition to RCSA section 22a-174-20 to limit VOC emissions from pleasure craft coating. Owners of marinas and boat yards that coat pleasure craft will be required to meet the VOC content limits for coatings and keep records of coatings and solvents purchased. (Section 5)

The requirements for both miscellaneous parts coating and pleasure craft coating include VOC content limits for coatings applied; work practices that limit evaporation and waste of coatings and solvents; coating application methods; and record keeping requirements.

Elements of the proposal aside from the parts and pleasure craft coating are minor revisions to address the interaction of the revised and new requirements with other subsections of RCSA section 22a-174-20. Such revisions are as follows:

- Removing redundant record keeping requirements for owners and operators of miscellaneous metal and plastic parts coating facilities (Section 2);
- Removing an artificial distinction between the use of permits and orders as the enforceable mechanisms for alternative emissions control scenarios for sources of volatile organic compound emissions (Section 3); and
- Making a minor clarification to the industrial solvent cleaning requirements of subsection (ii) of RCSA section 22a-174-20. (Section 4)

CERTIFICATION

Be it known that the foregoing (check one) Regulations Emergency Regulations
are (check all that apply) Adopted Amended as hereinabove stated Repealed
by the aforesaid agency pursuant to section(s) 22a-174 of the *General Statutes* and/or Public
Act number(s) _____,

(If applicable) after publication of notice of intent in the *Connecticut Law Journal* on September 27, 2011,
(If applicable) and the holding of an advertised public hearing on November 9, 2011;

WHEREFORE, the foregoing regulations are hereby (check all that apply)

Adopted Amended as hereinabove stated Repealed

EFFECTIVE: (check one, and complete as applicable)

When filed with the Secretary of the State

OR (insert date) _____

In Witness Whereof:	DATE <u>2/28/12</u>	SIGNED (Head of Board, Agency or Commission) <i>[Signature]</i>	OFFICIAL TITLE, DULY AUTHORIZED <u>COMMISSIONER, DEEP</u>
---------------------	------------------------	--	--

APPROVED by the Attorney General as to legal sufficiency in accordance with CGS Section 4-169, as amended

DATE <u>3/15/12</u>	SIGNED (Attorney General or AG's designated representative) <i>[Signature]</i> Joseph Rubin	OFFICIAL TITLE, DULY AUTHORIZED <u>ASSOC. ATTY. GENERAL</u>
------------------------	--	--

Or DEEMED APPROVED by the Attorney General in accordance with CGS Section 4-169, as amended, due to failure to give notice to the agency of any legal insufficiency within thirty (30) days of the receipt of the proposed regulation.

DATE	SIGNED (Head of Board, Agency or Commission)	OFFICIAL TITLE, DULY AUTHORIZED
------	--	---------------------------------

(For Regulation Review Committee Use ONLY)

- Approved Rejected without prejudice
- Approved with technical corrections only Disapproved in part, (Indicate Section Numbers disapproved only)
- Deemed approved pursuant to CGS 4-170(c) as amended

By the Legislative Regulation Review Committee in accordance with CGS Section 4-170, as amended	DATE <u>7/24/2012</u>	SIGNED (Administrator, Legislative Regulation Review Committee) <i>[Signature]</i> Pamela B. Booth
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Two certified copies received and filed and one such copy forwarded to the Commission on Official Legal Publications in accordance with CGS Section 4-172, as amended.

DATE	SIGNED (Secretary of the State)	BY
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INSTRUCTIONS

- All regulations proposed for adoption, amendment or repeal, *except* emergency regulations, must be presented to the Attorney General for his/her determination of legal sufficiency. (See CGS Section 4-169.)
- After approval by the Attorney General, original and eighteen (18) copies of all regulations proposed for adoption, amendment or repeal must be presented to the standing Legislative Regulation Review Committee for its action. (See CGS Section 4-170.)
- Each proposed regulation must be in the form intended for publication and each section must include the appropriate regulation section number and section heading. (See CGS Section 4-172.)
- New language added to an existing regulation must be in underlining or CAPITAL LETTERS, as determined by the Regulation Review Committee. (See CGS 4-170(b).)

CERTIFICATION

1) I hereby certify that the above (check one) Regulations Emergency Regulations

2) are (check all that apply) adopted amended repealed by this agency pursuant to the following authority(ies): (complete all that apply)

a. Connecticut General Statutes section(s) 22a-174

b. Public Act Number(s) _____
(Provide public act number(s) if the act has not yet been codified in the Connecticut General Statutes.)

3) And I further certify that notice of intent to adopt, amend or repeal said regulations was published in the Connecticut Law Journal on 27 September 2011;
(Insert date of notice publication if publication was required by CGS Section 4-168.)

4) And that a public hearing regarding the proposed regulations was held on 9 Nov. 2011;
(insert date(s) of public hearing(s) held pursuant to CGS Section 4-168(a)(7), if any, or pursuant to other applicable statute.)

5) And that said regulations are EFFECTIVE (check one, and complete as applicable)

When filed with the Secretary of the State
OR on (insert date) _____

DATE <u>8/17/12</u>	SIGNED (Head of Board, Agency or Commission) <i>[Signature]</i>	OFFICIAL TITLE, DULY AUTHORIZED <u>Commissioner</u>
------------------------	--	--

APPROVED by the Attorney General as to legal sufficiency in accordance with CGS Section 4-169, as amended

DATE <u>9/13/12</u>	SIGNED (Attorney General or AG's designated representative) <i>[Signature]</i>	OFFICIAL TITLE, DULY AUTHORIZED <u>Assoc. Atty Gen.</u>
------------------------	---	--

Proposed regulations are DEEMED APPROVED by the Attorney General in accordance with CGS Section 4-169, as amended, if the Attorney General fails to give notice to the agency of any legal insufficiency within thirty (30) days of the receipt of the proposed regulation.

(For Regulation Review Committee Use ONLY)

Approved Rejected without prejudice

Approved with technical corrections Disapproved in part (Indicate Section Numbers disapproved only)

Deemed approved pursuant to CGS 4-170(c) as amended

By the Legislative Regulation Review Committee in accordance with CGS Section 4-170, as amended	DATE <u>10/23/2012</u>	SIGNED (Administrator, Legislative Regulation Review Committee) <i>[Signature]</i>
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Two certified copies received and filed and one such copy forwarded to the Commission on Official Legal Publications in accordance with CGS Section 4-172, as amended.

DATE	SIGNED (Secretary of the State)	BY
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(For Secretary of State Use ONLY)

SECRETARY OF THE STATE
 LEGISLATIVE REGULATION
 ADMINISTRATION DIVISION
 10 OCT 31 PM 2:10

Attachment B

Public Notice of Hearing

DEPARTMENT OF ENERGY AND ENVIRONMENTAL PROTECTION

**Notice of Intent to Amend the Regulations of Connecticut State Agencies
and to Revise the State Implementation Plan for Air Quality**

The Commissioner of Energy and Environmental Protection hereby gives notice of a public hearing as part of a proceeding to amend section 22a-174-20(s) of the Regulations of Connecticut State Agencies (RCSA) to establish new and enhance existing reasonably available control technology (RACT) requirements for miscellaneous metal and plastic parts coating activities. EPA established a new RACT level

of control for miscellaneous metal and plastic parts coating in control techniques guideline (CTG) issued in 2008 [73 FR 58481].

This proposal amends RCSA section 22a-174-20(s) to update existing requirements for metal parts coating operations with lower volatile organic compound (VOC) content requirements for coatings and work practices designed to reduce VOC emissions. The proposal also adds new requirements, including VOC content limits and work practices, applicable to plastic parts coating operations.

The volatile organic compound (VOC) reductions associated with the RACT update portion of this proposal will assist Connecticut to attain and maintain the federal ozone national ambient air quality standards (NAAQS) and serve as directionally correct measures with respect to Connecticut's attainment and maintenance of the fine particulate matter NAAQS. Once adopted, this proposal will be submitted to the U.S. Environmental Protection Agency (EPA) for review and approval as a revision to the State Implementation Plan for air quality.

All interested persons are invited to submit comment to the Department of Energy and Environmental Protection (DEEP), Bureau of Air Management, Engineering & Enforcement Division, 79 Elm Street, Hartford, Connecticut 06106-5127. All comments should be directed to the attention of Robin Baena and must be received by 5:00 PM on 9 November 2011. Comments may be submitted by post, facsimile to (860) 424-4064 or by electronic mail to robin.baena@ct.gov.

In addition to accepting written comments, DEEP will also hold the public hearing described below. The Commissioner requests that any person giving oral comment at the hearing also submit a written copy of such comments.

PUBLIC HEARING

9 November 2011 at 11 AM

**Department of Environmental Protection, 5th Floor, Holcombe Room
79 Elm Street, Hartford, CT**

Copies of the proposal are available for public inspection during normal business hours and may be obtained from Sharon Rowe-Johnson at the Bureau of Air Management, Engineering & Enforcement Division, 5th Floor, 79 Elm Street, Hartford, Connecticut. The same documents are posted on DEEP's website at the following location:

http://www.ct.gov/dep/cwp/view.asp?a=2684&q=331220&depNav_GID=1619

For further information, contact Robin Baena of the Bureau of Air Management at (860) 424-4152 or by electronic mail to robin.baena@ct.gov.

DEEP is an affirmative action/equal opportunity employer and service provider. In conformance with the Americans with Disabilities Act, DEEP makes every effort to provide equally effective services for persons with disabilities. Individuals with disabilities who need this information in an alternative format, to allow them to benefit and/or participate in the agency's programs and services, should call 860-424-3035 or e-mail the ADA Coordinator, at DEP_aaoffice@ct.gov. Persons who are hearing impaired should call the State of Connecticut relay number 711. Requests for accommodations must be made at least two weeks prior to the program date.

The authority to adopt this proposal is granted by sections 22a-6 and 22a-174 of the Connecticut General Statutes (CGS). This notice is required pursuant to CGS sections 22a-6 and 4-168 and 40 Code of Federal Regulations 51.102.

Daniel C. Esty
Commissioner

Attachment C

Public Hearing Attendees

ATTENDANCE

Public Hearing

November 9, 2011

2008 Control Techniques Guidance: Parts Coating and Pleasure Craft Coating
Amendment of RCSA Section 22a-174-20(s); Adoption of RCSA Section 22a-174-20(kk)

Name	Organization represented	Contact information (include electronic address)
Robin Baena	DEEP	
Merrily Gere	DEEP	
Ric Rrolli	DEEP	
Christine Benetti	HAMILTON SUNDSTRAND	cbenetti@geiconsultants.com
Eugene Brackbill	Sci-Tech, Inc.	ebrackbill@ sci-tech.me.com
Robert Silvestri	PSEG Power Connecticut	Robert Silvestri, e pres. 1 Atlantic St. Bridgeport, CT 06604 203.557.6032

Attachment D


Certification of Public Hearing

HEARING CERTIFICATION

This certifies in accordance with the provisions of Title 40 Code of Federal Regulations Part 51.102 that the following actions were taken regarding the proposed amendment or adoption of various sections of the air quality regulations:

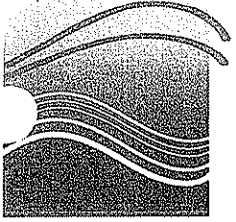
- 1) The public hearing was held on November 9, 2011 as announced in the notice of hearing (copy attached);
- 2) In accordance with the notice, materials were available for review at the Department of Energy and Environmental Protection and posted on the Department's website;
- 3) Copies of the notice were mailed electronically to the directors of the air pollution control agencies in New York, New Jersey, Rhode Island and Massachusetts along with a copy to the Director of the Air Management Division of Region I of the U.S. Environmental Protection Agency; and
- 4) The notice of hearing was published in the *Connecticut Law Journal* on September 27, 2011 and on the Department of Energy and Environmental Protection's website.

11/20/2012
Date


Robin D. Baena
Robin D. Baena
Bureau of Air Management

Attachment E

Hearing Report



Connecticut Department of

**ENERGY &
ENVIRONMENTAL
PROTECTION**

EXHIBIT E

HEARING REPORT

**Prepared Pursuant to Section 4-168(d) of the
Connecticut General Statutes and
Section 22a-3a-3(d)(5) of the Department of Energy and Environmental Protection
Rules of Practice**

**Regarding
Amendment of Air Quality Regulations Concerning
Parts Coating and Pleasure Craft Coating**

**Hearing Officer:
Robin D. Baena**

Date of Hearing: November 9, 2011

On September 27, 2011, the Commissioner of the Department of Energy and Environmental Protection (DEEP) published a notice of intent to amend section 22a-174-20(s) of the Regulations of Connecticut State Agencies (RCSA) and adopt RCSA section 22a-174-20(kk). Pursuant to such notice, a public hearing was held on November 9, 2011, with the public comment period closing on the same day.

I. Hearing Report Content

As required by section 4-168(d) of the Connecticut General Statutes (CGS), this report describes the proposal, identifies principal reasons in support of and in opposition to the proposal, and summarizes and responds to all comments on the proposal.

The proposal is included as Attachment 2 to this report. A final revised version of the proposal based on the recommendations in this report is included as Attachment 3. A statement in satisfaction of CGS section 22a-6(h) is included as Attachment 1.

II. Summary of Proposal

The proposal includes the revision of RCSA section 22a-174-20(s) to further limit volatile organic compounds (VOC) emissions from the coating of metal and plastic parts and the adoption of RCSA section 22a-174-20(kk) to limit VOC emissions from the coating of pleasure craft.

The proposal was prepared in response to the U.S. Environmental Protection Agency's (EPA's) September 2008 publication of a control techniques guideline (CTG) for miscellaneous metal and plastic parts coating operations.¹ Since Connecticut has been designated as nonattainment for ozone, the Clean Air Act requires the state to revise its State Implementation Plan (SIP) to include reasonably available control technology (RACT) for each category of VOC sources for which EPA has published a CTG. DEEP is proposing revisions to RCSA section 22a-174-20 to adopt a RACT level of control as established in the 2008 CTG for the miscellaneous metal and plastic parts coating category. The 2008 CTG updates a 1978 CTG addressing emissions from miscellaneous metal parts coating,² which DEEP first adopted as RCSA section 22a-174-20(s) in 1980 and revised in 1993 to increase compliance flexibility. DEEP is proposing to revise subsection (s) to include plastic parts coating and update the metal parts coating requirements. EPA includes pleasure craft coating operations within the metal and plastic parts coatings category in the 2008 CTG. Recognizing the differences in parts coating operations and pleasure craft coating, DEEP is proposing to address pleasure craft coating with new subsection (kk) of RCSA section 22a-174-20, distinct from the requirements applying to metal and plastic parts coating.

III. Opposition to the Proposal

No submitted comments oppose this proposal.

IV. Summary of Comments

No oral comments were submitted at the hearing. Written comments were received from the following persons:

1. Anne Arnold, Manager
Air Quality Planning Unit
USEPA Region 1
5 Post Office Square, Suite 100
Boston, MA 02109-3912
2. Tom Scelfo, Senior Vice President
Woodard & Curran Inc.
1520 Highland Avenue
Cheshire, CT 06410

¹ EPA. Control Techniques Guideline for Miscellaneous Metal and Plastic Parts Coatings. EPA-453/R-08-0373. October 7, 2008.

² EPA. Control of Volatile Organic Emissions from Existing Stationary Sources Volume VI Surface Coating of Miscellaneous Metal Parts and Products. EPA 450/2-78-015. June 1978.

3. Corine Hellerman
Core EHS, Air Compliance
Sikorsky Aircraft Corp.
6900 Main Street, M/S 201A
Stratford, CT 06675-9129
4. Eugene Brackbill,
SCI-TECH, Inc.
ebrackbill@sci-techinc.com

All comments submitted are summarized below with DEEP's responses. Commenters are associated with the individual comments below by the number assigned above. When changes to the proposed text are indicated in response to comment, new text is in bold font and deleted text is in strikethrough font.

Subsection (s) – Miscellaneous Metal and Plastic Parts

Comment 1: Given that the date for compliance with the relevant emissions limits is stated as January 1, 2013 in subsection (s)(3), it is not clear why subsection (s)(10)(B) states that requests for permit revisions to limit a facility's potential to emit are also due January 1, 2013. (1)

Response: DEEP agrees that the submittal date and compliance date cannot coincide, since it would take time for a request for a permit or order revision to be approved. Further, the proposal does not allow the owner of a facility to submit a request for a revision after the compliance date, nor does it allow the owner of a facility that is not currently operating under an order or permit to apply for such a limitation. DEEP appreciates EPA's comment to allow for the proposal to be revised to align with DEEP's intent on these points. An owner of a facility may request a new order or a revision at any time. If an owner submits a request without allowing for sufficient approval time, the owner must operate in compliance with subsection (s) in the interim between the compliance date and approval of their request, if provided. Including an enforceable deadline in subsection (s)(10) is not necessary. Information concerning requesting or revising a permit or order will be included in the *Regulatory Assessment Document* DEEP prepared as technical support for this proposal and will be communicated to stakeholders as part of DEEP's outreach efforts concerning the new requirements.

To be consistent with DEEP's intent, subsection (s)(10) should be revised as follows:

~~(10) — Limitations on potential to emit; modification of permits or orders issued prior to January 1, 2013. An owner or operator issued a permit or order prior to January 1, 2013 pursuant to former section 22a-174-20(s)(7) of the Regulations of Connecticut State Agencies may:~~

~~(A) — Continue after January 1, 2013 to conduct miscellaneous metal parts coating in compliance with such a permit or order; or~~

~~(B) Submit a request to the commissioner to revise or modify the order or permit to include any miscellaneous plastic and metal part coating at the premises in the monthly limit of 1,666 pounds of VOC, as provided in subsection (s)(7)(G) of this section. Such a request shall be submitted no later than January 1, 2013.~~

(10) Limitations on potential to emit.

- (A) An owner or operator may submit a request to the commissioner for an order or permit to limit potential emissions from all miscellaneous metal and plastic parts coating at the premises to a monthly limit of 1,666 pounds of VOC; or**
- (B) An owner or operator issued a permit or order prior to January 1, 2013 pursuant to former section 22a-174-20(s)(7) of the Regulations of Connecticut State Agencies may:**
 - (i) Continue after January 1, 2013 to conduct miscellaneous metal parts coating in compliance with such a permit or order,**
 - (ii) Submit a request to the commissioner to modify the order or permit to include all miscellaneous metal and plastic parts coating at the premises in the monthly limit of 1,666 pounds of VOC, or**
 - (iii) Submit a request to the commissioner to revoke the order or permit.**

Comment 2: Several locations in the proposal allow the commissioner to make case-by-case approvals for coating exemptions and alternative test methods. Provisions with such state discretion are not acceptable for approval into the SIP. Therefore, DEEP should revise the following subsections to also require EPA approval where it cites commissioner approval: (s)(7)(J), (s)(8)(B)(vi), (s)(9)(C), (kk)(7)(B)(vi), and (kk)(8)(C). (1)

Response: As suggested in the comment, DEEP should require EPA administrator and DEEP commissioner approval of case-by-case coating exemptions and alternative test methods in subsections (s)(7)(J), (s)(8)(B)(vi), (s)(9)(C), (kk)(7)(B)(vi), and (kk)(8)(C). As a result, subsection (s)(7)(J) should be revised as follows:

The requirements of subdivision (3) of this subsection shall not apply, upon request to and approval by the commissioner **and the Administrator...**

The text of subsection (s)(8)(B)(vi) should be moved to subsection (s)(8)(A)(vi), as explained in the response to Comment 15, and revised to read as follows:

Documentation of control device efficiency and capture efficiency, if applicable, using an applicable EPA reference method or alternate method as approved by the commissioner **and the Administrator**, and

Subsection (s)(9)(C) should be revised as follows:

To determine the properties of a coating or components thereof in order to perform the calculations required pursuant to subparagraph (A) of this subdivision or to verify calculations based on the manufacturer's formulation data, the VOC and solids content of all coatings shall be determined using 40 CFR 60, Appendix A, Reference Method 24 or an equivalent method. In the case of a dispute, the VOC content determined using Reference Method 24 shall control, unless a person is able to demonstrate to the ~~commissioner's satisfaction~~ **satisfaction of the commissioner and the Administrator** that the manufacturer's formulation data are correct.

The text of subsection (kk)(7)(B)(vi) should be moved to subsection (kk)(7)(A)(vi), as explained in the response to Comment 15, and be revised to read as follows:

Documentation of control device efficiency and capture efficiency, if applicable, using an applicable EPA reference method or alternate method as approved by the commissioner **and the Administrator**, and

Subsection (kk)(8)(C) should be revised as follows:

To determine the properties of a coating or components thereof in order to perform the calculations required pursuant to subparagraph (A) of this subdivision or to verify calculations based on the manufacturer's formulation data, the VOC and solids content of all coatings shall be determined using 40 CFR 60, Appendix A, Reference Method 24 or an equivalent method. In the case of a dispute, the VOC content determined using Reference Method 24 shall control, unless a person is able to demonstrate to the ~~commissioner's satisfaction~~ **satisfaction of the commissioner and the Administrator** that the manufacturer's formulation data are correct.

Comment 3: DEEP's proposed emission limit for miscellaneous metal and plastic parts product coating operations are consistent with EPA's 2008 CTG for Miscellaneous Metal and Plastic Parts Coating (MMPPC). However, the proposed limits for certain specialty coatings are less stringent than Connecticut's existing SIP-approved rule. Therefore, when DEEP submits the revised rule to EPA as a SIP revision, the state must also address the anti-backsliding provisions of Sections 110(l) of the Clean Air Act. (1)

Response: Although a few proposed coating limits in the subsection (s) of RCSA section 22a-174-20 are less stringent than the current limits, most of the proposed limits are more stringent and more coating categories are regulated. The combination of new coating categories, more stringent limits and broader applicability means that RCSA section 22a-174-20, amended as recommended in this report, will be more protective of air quality

than the current RCSA section 22a-174-20. DEEP will address EPA's concerns in more detail in the SIP revision following completion of the rule making process.

Comment 4: Revise the "EMI/RFI shield coating" definition in subsection (s)(1)(WW) by adding "or static discharge" to be consistent with CTG recommended definition. (4)

Response: In the final text of RCSA section 22a-174-20(s)(1)(WW), DEEP should revise the definition of "EMI/RFI shield coating" to read as follows:

"EMI/RFI shield coating" means a coating that functions to attenuate electromagnetic interference, or radio frequency interference signals or static discharge;

Comment 5: Revise the "pretreatment coating" definition in subsection (s)(1)(FFFF) by adding "and to provide corrosion resistance" to be consistent with CTG recommended definition. As currently drafted, a limit for this coating type appears only in Table 20(s)-6a: Aerospace Specialty Coating Limits. DEEP should consider including the coating type in Table 20(s)-1: Metal Parts Coating VOC Limits. These coatings can also be used for non-aerospace equipment. As currently drafted, non-aerospace facilities using pretreatment coatings would be subject to the general coating category limits, which are substantially lower and would seem inappropriate. (4)

Response: DEEP should revise the definition of "pretreatment coating" in the final text of RCSA section 22a-174-20(s) to be consistent with the 1997 aerospace CTG as follows:

"Pretreatment coating" means a coating, containing at least 0.5 percent acid by weight, applied directly to a metal or composite surface to provide surface etching, corrosion resistance, adhesion and ease of stripping;

The 1997 aerospace CTG identifies "pretreatment coating" as a specialty coating for the aerospace industry, while the 2008 MMPPC CTG does not. We must, therefore, conclude that EPA intended this type of coating to be categorized as a general coating, subject to the general category limit when used outside of aerospace applications. States may implement controls other than those recommended in a CTG to impose a level of control at least as stringent as that recommended in a CTG. Since adopting the aerospace pretreatment coating limits for coating in non-aerospace applications would constitute less stringent controls, DEEP should not revise the proposal in response to this comment.

Comment 6: Revise the "Sealant" definition in subsection (s)(1)(TTTT) by adding "There are two categories of sealants: extrudable/rollable/brushable sealants and sprayable sealants" to be consistent with the definition in Control of Volatile Organic Compound Emissions from Coating Operations at Aerospace Manufacturing and Rework Operations (EPA-453/R-97-004, December 1997). (4)

Response: DEEP should make no change to the proposal in response to this comment. The two categories of sealants are listed in Table 20(s)-6a and do not need to be repeated

in the definition to clarify applicability. The current definition is sufficient to describe “sealant” coatings.

Comment 7: In Table 6b of the draft regulation, it appears that the primer and topcoat coating categories from the Aerospace NESHAP were incorporated, but definitions were left out of the draft rule. Definitions and clarification on what coating limits apply are needed.

The Aerospace NESHAP has the following definitions:

General aviation rework facility means any aerospace facility with the majority of its revenues resulting from the reconstruction, repair, maintenance, repainting, conversion, or alteration of general aviation aerospace vehicles or components.

Large commercial aircraft means an aircraft of more than 110,000 pounds, maximum certified take-off weight manufactured for non-military use. (3)

Response: The coating limits in Table 20(s)-6b are the same as those in the aerospace NESHAP and are intended to apply to the same sources. To make this intent clear, DEEP should add the following definitions to subdivision (1) of subsection (s) in the appropriate alphabetical location. The other definitions in the subdivision should be re-lettered, as necessary:

“General aviation rework facility” means any aerospace facility with the majority of its revenues resulting from the reconstruction, repair, maintenance, repainting, conversion or alteration of general aviation aerospace vehicles or components;

”Large commercial aircraft” means an aircraft of more than 110,000 pounds, maximum certified take-off weight, manufactured for non-military use;

Comment 8: Regardless of whether or not a limit has been established for a specific material, the material should be defined. Several materials identified in the draft regulation are not defined:

- Fog coat
- Gloss reducer
- High performance architectural coating
- Mask coating
- Motor vehicle bedliner coating
- Motor vehicle gasket/gasket sealing material
- Motor vehicle lubricating/wax compound
- Motor vehicle sealer
- Motor vehicle trunk interior coating
- Motor vehicle underbody coating
- Multi-colored coating
- Two component coating (4)

Response: To allow for all due clarity, DEEP should add the following definitions, located alphabetically, to the final text of RCSA section 22a-174-20(s)(1). Definitions in the subdivision should be re-ordered and re-lettered, as necessary, to accommodate the new definitions:

“Fog coat” means a coating that is applied to a plastic part at a thickness of no more than 0.5 mils of coating solids for the purpose of color matching without masking a molded-in texture;

“Gloss reducer” means a coating that is applied to a plastic part at a thickness of no more than 0.5 mils of coating solids solely to reduce the shine of the part;

“High-performance architectural coating” means a coating used to protect architectural subsections and that meets the requirements of the Architectural Aluminum Manufacturer Association's 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);

“Mask coating” means thin film coating applied through a template to coat a small portion of a substrate;

“Motor vehicle bedliner coating” means a multi-component coating applied to a cargo bed after the application of a topcoat to provide additional durability and chip resistance;

“Motor vehicle cavity wax” means a coating applied into the cavities of the vehicle primarily for the purpose of enhancing corrosion protection;

“Motor vehicle deadener” means a coating applied to selected vehicle surfaces primarily for the purpose of reducing the sound of road noise in the passenger compartment;

“Motor vehicle gasket/sealing material” means a fluid applied to coat a gasket or replace and perform the same function as a gasket. Automobile and light-duty truck gasket/gasket sealing material includes room temperature vulcanization seal material;

“Motor vehicle lubricating wax/compound” means a protective lubricating material applied to vehicle hubs and hinges;

“Motor vehicle sealer” means a high viscosity material generally, but not always, applied in the paint shop after the body has received an electrodeposition primer coating and before the application of a subsequent coating (e.g., primer-surfacer). The primary purpose of automobile and light-duty truck sealer is to

fill body joints completely so that there is no intrusion of water, gases or corrosive materials into the passenger area of the body compartment;

“Motor vehicle trunk interior coating” means a coating applied to the trunk interior to provide chip protection;

“Motor vehicle underbody coating” means a coating applied to the undercarriage or firewall to prevent corrosion or provide chip protection;

“Multi-colored coating” means a coating packaged in a single container and applied in a single coat which exhibits more than one color when applied;

Subsection (s)(1)(U) of the proposal contains a definition of “cavity wax” and subsection (s)(1)(KK) contains a definition of “deadener.” These terms are specific to motor vehicle coating applications and the above “motor vehicle” definitions are more specific. To avoid redundancy, in the final text the “cavity wax” and “deadener” definitions should be deleted from subsection (s)(1):

~~(U) “Cavity wax” means a coating, used at a motor vehicle assembly coating facility, applied into the cavities of the vehicle primarily for the purpose of enhancing corrosion protection;~~

~~(KK) “Deadener” means a specialty coating applied to selected vehicle surfaces primarily for the purpose of reducing the sound of road noise in the passenger compartment;~~

The term “two-component coating” is not used in the proposal, so a definition is not necessary. Two-component coatings are classified as multi-component coatings. RCSCA section 22a-174-20(s) includes a definition and limits for multi-component coatings.

Comment 9: VOC content limits are established for vacuum-metalizing coatings applied to metal parts and plastic parts. The definition at subsection (s)(1)(OOOOO) is consistent with the CTG recommended definition for metal parts coating:

“Vacuum-metalizing coating” means an undercoat applied to a substrate on which metal is deposited or an overcoat applied directly to a metal film;

The CTG recommended definition for plastic part vacuum metalizing coating is sufficiently different so that it should be included:

“Vacuum-metalizing coating” as applied to metal parts means the undercoat applied to the substrate on which the metal is deposited or the overcoat applied directly to the metal film. With respect to plastic parts, vacuum-metalizing coating means topcoats and basecoats that are used in the vacuum-metalizing process.” (4)

Response: The definition of “vacuum-metalizing coating” does not differ for the different substrates in any meaningful way. A topcoat and overcoat are substantially the

same, as are basecoats and undercoats, in this application. However, clarification of the definition is required. In the final text of subsection (s)(1), the definition of “vacuum-metalizing coating” should be revised as follows:

“Vacuum-metalizing coating” means the undercoat applied to ~~the a~~ substrate on which the metal is deposited **prior to a vacuum-metalizing process** or the overcoat applied directly to the metal film **after a vacuum-metalizing process**;

A corresponding definition of “vacuum-metalizing process” should also be added to subsection (s)(1), as follows:

“**Vacuum metalizing process**” means the process of evaporating metals inside a vacuum chamber and depositing them on a substrate to achieve a uniform metalized layer;

Comment 10: The definition of wing coating should include rotary wings. (3, 4)

Response: In the final text of subsection (s)(1), the definition for “wing coating” should be revised as follows:

“Wing coating” means a corrosion-resistant topcoat that withstands the flexing of aircraft wings **and rotary wings**.

Comment 11: In subsection (s)(2)(A)(ii), it is not clear why the applicability criteria only applies to “the owner” and not to both “the owner and operator,” as stated throughout the remainder of the rule. (1)

Response: This omission is an oversight. Subsection (s)(2)(A)(ii) should be revised to read as follows:

For which the owner **or operator** purchases for use at the premises 855 gallons or more of coatings and cleaning solvents in aggregate per rolling 12-month period.

Comment 12: We believe that the intent of the CTG is for the regulation to apply to products that are manufactured by the facility for sale or use at another location. To avoid different interpretations, please clarify that RCSA section 22a-174-20(s) is intended to apply only to production parts and not to other components at the facility that are not “products,” such as jigs and fixtures or equipment used to manufacture the products, or metal or plastic items at the facility that are not products manufactured by the facility for sale or use at another location. (2)

Response: The MMPPC CTG indicates that EPA intends the recommended controls to apply to “manufacturers of miscellaneous metal and plastic parts that surface coat the parts they produce” and “facilities that perform surface coating of miscellaneous metal and plastic parts on a contract basis.” DEEP does not intend for the maintenance coating of facility fixtures, equipment and components to be regulated under subsection (s). To clarify, the following exemption should be added to subdivision (7)(A) as clause (xiii):

(7) Exemptions and exceptions.

(A) Except as provided in subdivision (8) of this subsection, the requirements of this subsection shall not apply to any of the following activities, and the VOC emissions resulting from the following activities shall not be included in determinations pursuant to subdivision (2) or (7)(G) of this subsection: ...

(xiii) **Maintenance coating and related cleaning of fixtures, equipment and components that are not products manufactured by the facility or products coated on a contract basis.**

Comment 13: Subsection (s)(4)(I) states “Any owner or operator using an application method pursuant to this subparagraph shall maintain records demonstrating the transfer efficiency achieved.” Is my interpretation correct that the requirement applies only to (4)(I) and not to all of subdivision (4)? If not, “subparagraph” should be clearly described as applying only to (4)(I) and not the entire paragraph (4). Perhaps my understanding of “paragraph” and “subparagraph” as used in the regulation is confused. (4)

Response: According to the State of Connecticut Manual for Drafting Regulations prepared by the Legislative Commissioner's Office (Rev Dec. 2009, page 24), regulations are divided as follows:

- Section (e.g. 22a-174-20)
- Subsection (e.g. (s))
- Subdivision (e.g. (4))
- Subparagraph (e.g. (I))
- Clause (e.g. (i))
- Subclause (e.g. (IV))

Therefore, the requirement to maintain records demonstrating the transfer efficiency achieved would not apply to all of subdivision (4), but only to subparagraph (I) of subdivision (4). Since this interpretation is based on well established and published policy, no further clarification is necessary.

Comment 14: To be eligible for the shipbuilding and ship repair exemption of proposed section 22a-174-20(s)(7)(A)(v), the owner of a facility that applies coatings must “operate in compliance with 40 CFR 63 Subpart II.” We agree with the premise that a facility must be more than just “subject to” 40 CFR 63 Subpart II in order to be exempt from 22a-174-20(s), but are concerned that “operate in compliance” could be subject to interpretation by different inspectors. As a suggestion, perhaps “operate in compliance” could be replaced with “operate in substantial compliance” or similar wording. Otherwise, please provide some clarification as to the term “operate in compliance.” (2)

Response: DEEP does not intend for facilities that have failed in their obligation to comply with 40 CFR 63 Subpart II to also be in noncompliance with RCSA section 22a-174-20(s). For instance, a recordkeeping violation under Subpart II should not eliminate a source from using the exemption provided in proposed subsection (s)(7)(A)(v). To prevent disagreements about how much compliance is enough, the compliance phrase should be deleted from the proposed language. The obligation to comply with the federal requirements exists independently. Subsection (s)(7)(A)(v) should, therefore, be revised as follows:

Coating applied in a shipbuilding and repair operation, provided that the operation is subject to ~~and operating in compliance with~~ 40 CFR 63 Subpart II,

Comment 15: Per proposed RCSA section 22a-174-20(s)(7)(A)(v), shipbuilding and ship repair facilities... are exempt from 22a-174-20(s), except for record keeping requirements under section 22a-174-20(s)(8). Section 22a-174-20(s)(8)(D) states that the facility must retain “records sufficient to verify the applicability of the exception or exemption.” We interpret that requirement to mean records that demonstrate that the facility is “operating in compliance with 40 CFR 63 Subpart II” as required by section 22a-174-20(s)(7)(A)(v), such as an initial notification, implementation plan, and semi-annual reports. In accordance with section 22a-174-20(s)(8)(A), those records would need to be maintained for five years and made available upon request.

Please clarify whether the additional record keeping requirements under 22a-174-20(s)(8)(B) are also required. (2)

Response: DEEP’s intention is that a coating operation granted an exception or exemption would only need to keep “records sufficient to verify the applicability of the exception or exemption,” maintain those records for five years, and make them available upon request. Any coating operation that is exempt or does not meet the applicability thresholds would not be subject to subparagraph (B) of subsection (s)(8) of the proposal. To clarify, subsection (s)(8) should be revised as follows:

(8) Records.

(A) **Except as provided in subparagraphs (B) and (C), An** an owner or operator shall maintain records of information sufficient to determine compliance with the applicable requirements of this subsection, including, at a minimum, the **following** information ~~described in subparagraph (B) of this subdivision. All such records shall be for each calendar month:~~

~~(i) Made available to the commissioner to inspect and copy upon request, and~~

~~(ii) Maintained for five years from the date such record is created.~~

~~(B) An owner or operator shall maintain records of the following information for each calendar month:~~

- (i) Name and description of each coating and cleaning solvent,
- (ii) VOC content of each coating and cleaning solvent, as applied, and the associated calculations,
- (iii) VOC content of each coating or cleaning solvent, as supplied,
- (iv) The amount of each coating and cleaning solvent:
 - (I) Purchased, or
 - (II) ~~Actually-used~~ **Used**,
- (v) A Material Safety Data Sheet, Environmental Data Sheet, Certified Product Data Sheet, or an equivalent data sheet for each coating and cleaning solvent,
- (vi) Documentation of control device efficiency and capture efficiency, if applicable, using an applicable EPA reference method or alternate method as approved by the commissioner **and the Administrator**, and
- (vii) Date and type of maintenance performed on air pollution control equipment, if applicable.

~~(E)~~**(B)** Any owner or operator who does not meet the applicability thresholds provided in subdivision (2)(A) of this subsection shall maintain either material purchase or actual usage records to verify that this subsection does not apply to such owner or operator.

~~(D)~~**(C)** An owner or operator operating pursuant to an exception or exemption in subdivision (7) of this subsection shall maintain records sufficient to verify the applicability of the exception or exemption.

(D) All records made pursuant to this subdivision shall be:

- (i) Made available to the commissioner to inspect and copy upon request, and**
- (ii) Maintained for five years from the date such record is created.**

In addition, to improve clarity and maintain consistency between subsections (s) and (kk), proposed subsection (kk)(7) should be revised as follows:

(7) Records.

(A) **Except as provided in subparagraphs (B) and (C), An** an owner or operator shall maintain records of information sufficient to determine compliance with the applicable requirements of this subsection, including, at a minimum, the **following** information ~~described in subparagraph (B) of this subdivision. All such records shall be~~ **for each calendar month:**

~~(i) Made available to the commissioner to inspect and copy upon request, and~~

~~(ii) Maintained for five years from the date such record is created.~~

~~(B) An owner or operator shall maintain records of the following information for each calendar month:~~

(i) Name and description of each coating and cleaning solvent,

(ii) VOC content of each coating and cleaning solvent, as applied, and the associated calculations,

(iii) VOC content of each coating or cleaning solvent, as supplied,

(iv) The amount of each coating and cleaning solvent:

(I) Purchased, or

(II) ~~Actually-used~~ **Used,**

(v) A Material Safety Data Sheet, Environmental Data Sheet, Certified Product Data Sheet, or an equivalent data sheet for each coating and cleaning solvent,

(vi) Documentation of control device efficiency and capture efficiency, if applicable, using an applicable EPA reference method or alternate method as approved by the commissioner **and the Administrator,** and

(vii) Date and type of maintenance performed on air pollution control equipment, if applicable.

~~(B)~~ Any owner or operator who does not meet the applicability thresholds provided in subdivision (2)(A) of this subsection shall maintain either material purchase or actual usage records to verify that this subsection does not apply to such owner or operator.

~~(C)~~ An owner or operator operating pursuant to an exception or exemption in subdivision (3) of this subsection shall maintain records sufficient to verify the applicability of the exception or exemption.

- (D) All records made pursuant to this subdivision shall be:
- (i) Made available to the commissioner to inspect and copy upon request, and
 - (ii) Maintained for five years from the date such record is created.

Comment 16: Proposed RCSA section 22a-174-20(s)(8)(B)(ii) states that records must be maintained of the “VOC content of each coating and cleaning solvent, as applied, and the associated calculations.” We suggest replacing the words “cleaning solvent” with “diluent.” Otherwise, there would be no need for any “associated calculations.” In addition, RCSA section 22a-174-20(s)(8)(B)(iii) already includes record keeping requirements for the VOC content of the cleaning solvent. (2)

Response: In the final text of this proposal, section 20(s)(8)(B)(ii) of the proposal should be moved to subsection 20(s)(8)(A)(ii), as explained in the response to Comment 15, and be revised as follows:

VOC content of each coating and ~~cleaning solvent~~ **diluent**, as applied, and the associated calculations,

For the same reasons as stated in this comment, “diluent” should replace “cleaning solvent” in proposed RCSA section 22a-174-20(kk)(7)(B)(ii). This text should be moved to subsection (kk)(7)(A)(ii), as explained in the response to Comment 15, and be revised as follows:

VOC content of each coating and ~~cleaning solvent~~ **diluent**, as applied, and the associated calculations,

As suggested in this comment, cleaning solvents and diluents are distinct materials. Subsections (s)(5) and (kk)(6) specify work practice requirements for VOC-containing coatings and cleaning solvents, but not diluents. Since diluents also need to be handled in a manner that limits VOC emissions, diluents should be included in the work practice requirements of both subsections. Therefore, subsections (s)(5) and (kk)(6) should be revised to read as follows:

Work practices. Each owner or operator shall use the following work practices:

- (A) New and used VOC-containing coating, **diluent** or cleaning solvent, including a coating mixed on the premises, shall be stored in a nonabsorbent, non-leaking container. Such a container shall be kept closed at all times except when the container is being filled, emptied or is otherwise actively in use;

- (B) Spills and leaks of VOC-containing coating, **diluent** or cleaning solvent shall be minimized. Any leaked or spilled VOC-containing coating, **diluent** or cleaning solvent shall be absorbed and removed immediately;
- (C) Absorbent applicators, such as cloth and paper, which are moistened with a VOC-containing coating or solvent, shall be stored in a closed, nonabsorbent, non-leaking container for disposal or recycling; and
- (D) VOC-containing coating, **diluent** and cleaning solvent shall be conveyed from one location to another in a closed container or pipe.

Subsection (kk) – Pleasure Craft Coating

Comment 17: In Table 20(kk)-1, “Pleasure Craft Coating VOC Limits,” Connecticut’s proposed limits for Extreme High Gloss Topcoat and Other Substrate Antifoulant Coating are less stringent than EPA’s 2008 CTG for MMPPC operations. In addition, Connecticut is proposing an Antifouling Sealer/Tie Coating category with a less stringent limit than the CTG Other Substrate Antifoulant category. The technical analysis contained in Connecticut’s *Regulatory Assessment Document* addresses this issue and should be included in Connecticut’s SIP submittal for this regulation. (1)

Response: DEEP appreciates EPA’s suggestion and will include the technical analysis contained in Connecticut’s *Regulatory Assessment Document* in Connecticut’s SIP submittal for this regulation. DEEP should not revise the proposal in response to this comment.

V. Comments of Hearing Officer

The hearing officer suggests the following additional revisions to the proposal. The suggested revisions are minor, noncontroversial and will make for a clearer final proposal.

(1) The definition of “air dried” located at subsection (s)(1)(F) of the final text of the proposal should be revised to replace the word degrees with its symbol for consistency with the other defined terms in the section, as follows:

“Air dried” means cured at a temperature below 90 °C (194 degrees °F);

(2) The definition of “automotive-transportation parts” located at subsection (s)(1)(M) of the final text of the proposal should be revised from plural to singular for consistency with the other defined terms in the section, as follows:

"Automotive-transportation parts **part**" means the **an** interior **and or** exterior components component of **a** motor ~~vehicles and~~ **vehicle or mobile sources source**;

(3) The definition of “caulking and smoothing compounds” located at subsection (s)(1)(T) of the final text of the proposal should be revised from plural to singular for consistency with the other defined terms in the section as follows:

“Caulking and smoothing ~~compounds~~ **compound**” means a semi-solid ~~materials~~ **material** that ~~are~~ **is** applied by hand and are used to smooth exterior vehicle surfaces or fill cavities such as bolt hole accesses. A material shall not be classified as a “caulking and smoothing compound” if it can also be classified as a sealant;

(4) The second sentence of the “commercial interior adhesive” definition located at subsection (s)(1)(BB) of the final text of the proposal applies to the components being coated and not the adhesive. The definition should, therefore, be revised as follows:

“Commercial interior adhesive” means a ~~materials~~ **material** used in the bonding of passenger cabin interior components. ~~These components must meet Federal Aviation Administration fireworthiness requirements;~~

(5) The definition of “corrosion prevention compound” located at subsection (s)(1)(EE) of the final text of the proposal should be revised as follows:

“Corrosion prevention compound” means a coating system that provides corrosion protection by displacing water and penetrating substrates, forming a protective barrier between the metal surface and moisture. ~~Coatings~~ **A coating** containing oils or waxes ~~are~~ **is** excluded from this category;

(6) The first word of each clause of the definition of “related cleaning” located at subsection (s)(1)(WWW) of the final text of the proposal should be capitalized as follows:

“Related cleaning” means the removal of uncured coatings, coating residue and contaminants from:

- (i) ~~miscellaneous~~ **Miscellaneous** metal and plastic parts prior to the application of coatings,
- (ii) ~~miscellaneous~~ **Miscellaneous** metal and plastic parts between coating applications, or
- (iii) ~~transfer~~ **Transfer** lines, storage tanks, spray booths and coating application equipment;

(7) Subdivision (3) of subsection (s) of the final text of the proposal should be revised to make the punctuation consistent with other subdivisions by replacing the period at the end of subparagraphs (A) through (C) with a semicolon as follows:

Except as provided in subdivision (7) of this subsection, on and after January 1, 2013, no owner or operator shall apply any coating, inclusive of any VOC-containing material added to the original coating supplied by the manufacturer, unless the owner or operator

controls emissions of VOCs in accordance with subparagraph (A), (B), (C) or (D) of this subdivision. If more than one emission limit or emission rate applies in a particular situation, then the least restrictive limit or emission rate shall apply. An owner or operator shall control the emission of VOCs as follows:

- (A) Use only coatings that have an as applied VOC content no greater than the applicable level in Table 20(s)-1, 20(s)-2, 20(s)-3, 20(s)-4, 20(s)-5, 20(s)-6a or 20(s)-6b;
- (B) For a coating unit, use a combination of low-VOC coatings and add-on air pollution control equipment to achieve a VOC emission rate no greater than the applicable level in Table 20(s)-7, 20(s)-8, 20(s)-9, or 20(s)-10;
- (C) Install, operate and maintain according to the manufacturer's recommendations air pollution control equipment with an overall control efficiency of at least 90%; **and**
- (D) An alternative means, achieving a level of control equivalent to subparagraph (A), (B) or (C) of this subdivision, requested from and approved by the commissioner in accordance with subsection (cc) of this section.

(8) The definition of "related cleaning" located at subsection (kk)(1)(T) of the final text of the proposal should be revised to make the punctuation consistent with other definitions by replacing the semicolon at the end of clauses (i) and (ii) with a colon and capitalizing the first word of each clause as follows:

"Related cleaning" means the removal of uncured coatings, coating residue, and contaminants from:

- (i) ~~pleasure~~ **Pleasure** craft or parts and components of pleasure craft prior to the application of coatings;
- (ii) ~~pleasure~~ **Pleasure** craft or parts and components of pleasure craft between coating applications; or
- (iii) ~~transfer~~ **Transfer** lines, storage tanks, spray booths, and coating application equipment; and

(9) Subdivision (2) of subsection (kk) of the final text of the proposal should be revised to make the punctuation consistent with other subdivisions by replacing the period at the end of subparagraphs (A) and (B) with a semicolon as follows:

Applicability.

- (A) Except as provided in subdivision (3) of this subsection, the provisions of this subsection apply to the owner or operator of any marina, boat yard, or other

premises where pleasure craft coating is applied for commercial purposes at the direction of such owner or operator, if:

- (i) Such owner or operator was subject to subsection (s) of this section prior to January 1, 2013, or
 - (ii) Such owner or operator purchases for use in all pleasure craft coating and related cleaning at the premises 855 gallons or more of coatings and cleaning solvents in aggregate per rolling 12-month period-;
- (B) An owner or operator subject to this subsection shall:
- (i) For a source operating prior to January 1, 2013, comply with the requirements of this subsection no later than January 1, 2013, or
 - (ii) For a source that commences operation after January 1, 2013, comply with the requirements of this subsection upon commencing operation-; **and**
- (C) Any owner or operator subject to this subsection shall remain subject to this subsection.

(10) Subdivision (4) of subsection (kk) of the final text of the proposal should be revised to make the punctuation consistent with other subdivisions by replacing the period at the end of subparagraphs (A) through (D) with a semicolon as follows:

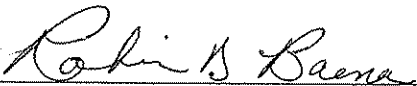
On and after January 1, 2013, no owner or operator of a pleasure craft coating operation shall apply any coating, inclusive of any VOC-containing material added to the original coating supplied by the manufacturer, unless the owner or operator controls emissions of VOCs in accordance with subparagraph (A), (B), (C), (D) or (E) of this subdivision. If more than one emission limit or emission rate applies in a particular situation, then the least restrictive limit or rate shall apply. An owner or operator shall:

- (A) Use only coatings that have an as applied VOC content no greater than the applicable level in Table 20(kk)-1-;
- (B) Use a combination of low-VOC coatings and add-on air pollution control equipment to achieve a VOC emission rate no greater than the applicable level in Table 20(kk)-2-;
- (C) Install, operate and maintain according to the manufacturer's recommendations air pollution control equipment with an overall control efficiency of at least 90%-;
- (D) Use an alternative means, achieving a level of control equivalent to subparagraph (A), (B) or (C) of this subdivision, requested from and approved by the commissioner in accordance with subsection (cc) of this section-; **and**

- (E) Limit the total potential VOC emissions from all pleasure craft coating operations and related cleaning by permit or order of the commissioner to 1,666 pounds or less in any calendar month.

VI. Conclusion

Based upon the comments addressed in this Hearing Report, I recommend the proposal be revised as recommended herein and that the recommended final proposal, included as Attachment 3 to this report, shall be submitted by the Commissioner for approval by the Attorney General and the Legislative Regulations Review Committee and upon adoption, be submitted to the EPA as a SIP revision.



Robin D. Baena
Hearing Officer

02/10/2012
Date

Attachment 1

STATEMENT PURSUANT TO SECTION 22a-6(h) OF THE GENERAL STATUTES CONCERNING THE ADOPTION OF REGULATIONS PERTAINING TO ACTIVITIES FOR WHICH THE FEDERAL GOVERNMENT HAS ADOPTED STANDARDS OR PROCEDURES

Pursuant to section 22a-6(h) of the Connecticut General Statutes (CGS), the Commissioner of the Department of Energy and Environmental Protection (the Department) is authorized to adopt regulations pertaining to activities for which the federal government has adopted standards or procedures. At the time of public notice, the Commissioner must distinguish clearly all provisions of a regulatory proposal that differ from federal standards or procedures either within the regulatory language or through supplemental documentation accompanying the proposal. In addition, the Commissioner must provide an explanation for all such provisions in the regulation-making record required under CGS Title 4, Chapter 54 and make such explanation publicly available at the time of the publication of the notice of intent required under CGS section 4-168.

In accordance with the requirements of CGS section 22a-6(h), the following statement is entered into the administrative record in the matter of the proposed revisions to section 22a-174-20(s) of the air quality regulations.

This proposal revises RCSA subsection 22a-174-20(s) to further limit VOC emissions from the coating of metal and plastic parts and adopts RCSA 22a-174-20(kk) to limit VOC emissions from the coating of pleasure craft.

The Department has performed a comparison of the proposal with analogous federal laws and regulations, namely the Clean Air Act (CAA) and standards and procedures in 40 Code of Federal Regulations (CFR), as follows:

Regarding the revision of subsection (s) and adoption of subsection (kk) in RCSA section 22a-174-20: There are no comparable federal standards specifying a reasonably available control technology (RACT) level of control, although Clean Air Act section 182(b) requires states to establish a RACT level of control for certain categories of sources. EPA does issue control technique guidelines (CTGs) that recommend work practices, application methods, reformulation and/or control equipment operation that EPA considers a RACT level of control for a source category or activity, but the adoption of enforceable requirements that meet at least that recommended level of control is left to each state with a nonattainment area for an ozone national ambient air quality standard. The proposed requirements for miscellaneous metal and plastic parts coating and pleasure craft coating are consistent with the recommendations of the miscellaneous metal and plastic parts coating CTG and provide at least a RACT level of control.

02/10/2012
Date


Robin D. Baena

Attachment 2
Proposal

Section 1. Subsection (s) of section 22a-174-20 of the Regulations of Connecticut State Agencies is amended to read as follows:

(s) Miscellaneous metal and plastic parts [and products.] coatings.

[(1) For the purpose of this subsection:

"Air dried coating" means a coating that is dried by the use of air or forced warm air at temperatures up to below 90 degrees C (194 degrees F).

"Clear coat" means a base or top coating which either lacks color and opacity or which is transparent and uses the surface to which it is applied as a reflectant base or undertone color.

"Coating application system" means all operations and equipment that apply, convey and dry a surface coating, including, but not limited to, spray booths, flow coaters, flashoff areas, air dryers and ovens.

"Exposure to extreme environmental conditions" means exposure to: the weather all of the time; temperatures consistently above 95 degrees C; detergents; abrasive and scouring agents; solvents; corrosive atmospheres; or similar environmental conditions as determined by the commissioner and the Administrator.

"Extreme performance coatings" means coatings designed for exposure to extreme environmental conditions.

"Heat sensitive material" means materials that cannot consistently be exposed to temperature greater than 95 degrees C (203 degrees F) for more than 30 seconds.

"High performance architectural aluminum coating" means a coating that is applied to architectural aluminum panels, extrusions or subsections to meet the specifications of publication number AAMA 605.2-1992 of the Architectural Aluminum Manufacturer's Association.

"Prime coat" means the first of two or more films of coating applied to a metal surface.

"Single coat" means one film of coating applied to a metal surface.

"Topcoat" means the final film or series of films of coating applied in a two-coat (or more) operation.

"Transfer efficiency" means the portion of coating solids that adheres to the metal surface during the application process, expressed as a percentage of the total volume of coating solids delivered by the applicator.

(2) Applicability. For the purpose of this subsection:

(A) Miscellaneous metal parts and products includes the following industrial categories:

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- (i) Large farm machinery such as harvesting, fertilizing and planting machines, tractors, combines, etc.,
 - (ii) Small farm machinery such as lawn and garden tractors, lawn mowers, rototiller, etc.,
 - (iii) Small appliances such as fans, mixers, blenders, crock pots, dehumidifiers, vacuum cleaners, etc.,
 - (iv) Commercial machinery such as office equipment, computers and auxiliary equipment, typewriters, calculators, vending machines, etc.,
 - (v) Industrial machinery such as pumps, compressors, conveyor components, fans, blowers, transformers, etc.,
 - (vi) Fabricated metal products such as metal covered doors, frames, etc., and
 - (vii) Any other industrial category which coats metal parts or products under the Standard Industrial Classification Code of Major Group 33 (primary metal industries), Major Group 34 (fabricated metal products), Major Group 35 (nonelectric machinery), Major Group 36 (electrical machinery), Major Group 37 (transportation equipment), Major Group 38 (miscellaneous instruments), Major Group 39 (miscellaneous manufacturing industries), Major Group 40 (Railroad Transportation) and Major Group 41 (Transit Passenger Transportation); and
- (B) Miscellaneous metal parts and products excludes the following items:
- (i) automobiles and light duty trucks,
 - (ii) metal cans,
 - (iii) flat metal sheets and strips in the form of rolls or coils,
 - (iv) plastic and glass objects,
 - (v) magnet wire for use in electrical machinery,
 - (vi) metal furniture,
 - (vii) the exterior surface of assembled aircraft,
 - (viii) automobile refinishing,
 - (ix) customized top coating of automobiles and trucks, if production is less than 5 vehicles per day, and
 - (x) the exterior surface of assembled marine vessels.

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- (3) Emission standards. No owner or operator of a facility engaged in the surface coating of miscellaneous metal parts and products may operate a coating application system subject to this subsection that emits volatile organic compounds from any coating in excess of:
- (A) 0.52 kg/l (4.3 lb/gal) of coating, excluding water and exempt volatile organic compounds listed in 40 CFR 51.100(s) as amended from time to time, delivered to a coating applicator that applies a clear coat;
 - (B) 0.42 kg/l (3.5 lb/gal) of coating, excluding water and exempt volatile organic compounds listed in 40 CFR 51.100(s) as amended from time to time, delivered to a coating applicator in a coating application system that is air dried or forced warm air dried at temperatures up to 90 degrees C (194 degrees F);
 - (C) 0.42 kg/l (3.5 lb/gal) of coating, excluding water and exempt volatile organic compounds listed in 40 CFR 51.100(s) as amended from time to time, delivered to a coating applicator that applies extreme performance coatings;
 - (D) 0.36 kg/l (3.0 lb/gal) of coating, excluding water and exempt volatile organic compounds listed in 40 CFR 51.100(s) as amended from time to time, delivered to a coating applicator for all other coatings, adhesives, fillers or sealants and coating application systems; and
 - (E) 0.75 kg/l (6.3 lb/gal) of coating, excluding water and exempt volatile organic compounds listed in 40 CFR 51.100(s) as amended from time to time, delivered to a coating applicator which applies high performance architectural aluminum coatings, provided that:
 - (i) such applicator is located at a premises which emits three thousand three hundred thirty three (3,333) pounds of volatile organic compounds per month or less from such applicator, and
 - (ii) such applicator was an existing source in Connecticut on or before November 1, 1994.
- (4) This subsection applies to all application areas, flashoff areas, air and forced air dryers and ovens used in the surface coating operations pertaining to miscellaneous metal parts and products listed in subsection (s)(2) of this section. This regulation also applies to prime coat, top coat and single coat operations.
- (5) If more than one emission limitation in subsection (s)(3) of this section applies to a specific coating, then the least stringent emission limitation shall be applied.
- (6) All volatile organic compound emissions from solvent washings shall be considered in the emission limitations in subsection (s)(3) of this section unless the solvent is directed into containers that prevent evaporation into the atmosphere.

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- (7) The provisions of this subsection apply to any premises that has actual emissions of volatile organic compounds of fifteen (15) pounds per day or more in any one day from all miscellaneous metal parts and products surface coating operations on such premises unless:
- (A) The total potential emissions from all surface coating operations are limited by permit or order of the commissioner to 1,666 pounds or less in any calendar month;
 - (B) The owner or operator is and has at all times been in compliance with such limitation since the issuance of the permit or order;
 - (C) The total actual emissions from all such surface coating operations have not exceeded 1,666 pounds in any calendar month since January 1987; and
 - (D) Notwithstanding subsections (A) through (C) of this subdivision, any surface coating operation on such premises that emitted 40 pounds or more in any day and that was subject to the requirements of this subsection prior to November 1, 1989, shall remain subject to the provisions of this subsection.
- (8) After November 1, 1989 any premises that is or becomes subject to the provisions of this subsection shall remain subject to the provisions of this subsection unless the owner or operator meets the requirements of subparagraphs (A), (B) and (C) of subdivision (7) of this subsection.
- (9) The owner or operator of any surface coating operation that was not subject to the requirements of this subsection prior to November 1, 1989, shall have until October 1, 1990, to comply with the requirements of this subsection for such system.
- (10) Notwithstanding the requirements of this subsection, an owner or operator may use, in the aggregate, up to fifty-five (55) gallons of coatings that exceed the emission limitations set forth in subdivision (3)(A) through (3)(E), inclusive, of this subsection at such premises for any twelve (12) consecutive months, provided such owner or operator maintains records of such coatings in accordance with subsection (aa) of this section.]
- (1) Definitions. For the purposes of this section, the following definitions apply:
- (A) “Ablative coating” means a coating that chars when exposed to open flame or extreme temperatures, as would occur during the failure of an engine casing or during aerodynamic heating. The ablative char surface serves as an insulative barrier, protecting adjacent components from the heat or open flame;
 - (B) “Adhesion promoter” means a very thin coating applied to a substrate to promote wetting and form a chemical bond with the subsequently applied material;
 - (C) “Adhesive bonding primer” means a primer applied in a thin film to aerospace components to inhibit corrosion and increase adhesive bond strength;
 - (D) “Aerospace high temperature coating” means a coating designed to withstand temperatures of more than 350°F;

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- (E) “Aerospace vehicle or component” means any fabricated part, processed part, assembly of parts, or completed unit, with the exception of electronic components, of any aircraft including but not limited to airplanes, helicopters, missiles, rockets and space vehicles;
- (F) “Air dried” means cured at a temperature below 90°C (194 degrees F);
- (G) “Airless spray application” means a coating spray application system using high fluid pressure, without compressed air, to atomize the coating;
- (H) “Air-assisted airless spray application” means a coating spray application system using fluid pressure to atomize the coating and lower pressure air to adjust the shape of the spray pattern;
- (I) “Antichafe coating” means a coating applied to areas of moving aerospace components that may rub during normal operations or installation;
- (J) “Antique aerospace vehicle” means an aircraft or component thereof that was built at least 30 years ago. An “antique aerospace vehicle” would not routinely be in commercial or military service in the capacity for which it was designed;
- (K) “Appurtenance” means any accessory to a stationary structure, including but not limited to: bathroom and kitchen fixtures; cabinets; concrete forms; doors; elevators; fences; hand railings; heating equipment, air conditioning equipment, and other fixed mechanical equipment or stationary tools; lampposts; partitions; pipes and piping systems; rain gutters and downspouts; stairways; fixed ladders; catwalks; fire escapes and window screens;
- (L) “As applied” means the composition of coating at the time it is applied to a surface, including any solvent, catalyst or other substance added to the coating but excluding water and exempt compounds;
- (M) “Automotive-transportation parts” means the interior and exterior components of motor vehicles and mobile sources;
- (N) “Baked” means cured at a temperature at or above 90°C (194°F);
- (O) “Bearing coating” means a coating applied to an antifriction bearing, a bearing housing or the area adjacent to such a bearing to facilitate bearing function or to protect base material from excessive wear. A material shall not be classified as a “bearing coating” if it can also be classified as a dry lubricative material or a solid film lubricant;
- (P) “Bonding maskant ” means a temporary coating used to protect selected areas of aerospace parts from strong acid or alkaline solutions during processing for bonding;

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- (Q) “Business machine” means a device that uses electronic or mechanical methods to process information, perform calculations, print or copy information or convert sound into electrical impulses for transmission, such as, typewriters, electronic computing devices, calculating and accounting machines, telephone and telegraph equipment and photocopy machines;
- (R) “Camouflage coating” means a coating used, principally by the military, to conceal equipment from detection;
- (S) “Capture efficiency” means the ratio of VOC emissions delivered to the control device to the total VOC emissions resulting from the miscellaneous metal and plastic parts coating operation, expressed as a percentage;
- (T) “Caulking and smoothing compounds” means semi-solid materials that are applied by hand and are used to smooth exterior vehicle surfaces or fill cavities such as bolt hole accesses. A material shall not be classified as a “caulking and smoothing compound” if it can also be classified as a sealant;
- (U) “Cavity wax” means a coating, used at a motor vehicle assembly coating facility, applied into the cavities of the vehicle primarily for the purpose of enhancing corrosion protection;
- (V) “Chemical agent-resistant coating” means an exterior topcoat designed to withstand exposure to chemical warfare agents or the decontaminants used on these agents;
- (W) “Chemical milling maskant” means a coating that is applied directly to aluminum components to protect surface areas when chemically milling the component with a Type I or II etchant. “Chemical milling maskants” do not include bonding maskants, critical use and line sealer maskants, seal coat maskants, maskants that are defined as specialty coatings or maskants used with either a Type I or II etchant plus a bonding maskant, critical use and line sealer maskant or seal coat maskant;
- (X) “Cleaning solvent” means any VOC-containing liquid, including a liquid impregnated wipe or towelette, used in cleaning;
- (Y) “Clear coating” means a colorless coating that contains binders but no pigment and is formulated to form a transparent film;
- (Z) “Coating” means a material that is deposited in a thin, persistent, uniform layer across the surface of a substrate for aesthetic, protective or functional purposes. Coatings include, but are not limited to, paints, primers, inks and maskants, but exclude protective oils, acids and bases;
- (AA) “Coating unit” means a series of one or more coating applicators and any associated drying area or oven wherein a coating is applied, dried or cured. A

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“coating unit” ends at the point where the coating is dried or cured, or prior to any subsequent application of a different coating;

- (BB) “Commercial exterior aerodynamic structure primer” means a primer used on aerodynamic components and structures that protrude from the fuselage, such as wings and attached components, control surfaces, horizontal stabilizers, vertical fins, wing-to-body fairings, antennae and landing gear and doors for the purpose of extended corrosion protection and enhanced adhesion;
- (CC) “Commercial interior adhesive” means materials used in the bonding of passenger cabin interior components. These components must meet Federal Aviation Administration fireworthiness requirements;
- (DD) “Compatible substrate primer” means one of the following coatings:
- (i) A primer that is compatible with the filled elastomeric coating and is epoxy based,
 - (ii) A primer that inhibits corrosion and is applied to bare metal surfaces or is applied prior to adhesive application, or
 - (iii) A primer that is applied to surfaces that can be expected to come into contact with fuel, with the exception of coatings applied to fuel tanks;
- (EE) “Control device efficiency” means the ratio of VOC emissions recovered or destroyed by the control device to the total VOC emissions that are introduced into the device, expressed as a percentage;
- (FF) “Corrosion prevention compound” means a coating system that provides corrosion protection by displacing water and penetrating substrates, forming a protective barrier between the metal surface and moisture. Coatings containing oils or waxes are excluded from this category;
- (GG) “Critical use and line sealer maskant” means a temporary coating, not covered under other maskant categories, used to protect selected areas of aerospace parts from strong acid or alkaline solutions such as those used in anodizing, plating, chemical milling and processing of magnesium, titanium or high A8 strength steel, high-precision aluminum chemical milling of deep cuts and aluminum chemical milling of complex shapes. Materials used for repairs or to bridge gaps left by scribing operations are also included in this category;
- (HH) “Cryogenic flexible primer” means a primer designed to provide corrosion resistance, flexibility and adhesion of subsequent coating systems when exposed to loads up to and surpassing the yield point of the substrate at cryogenic temperatures (-275°F and below);
- (II) “Cryoprotective coating” means a coating that insulates cryogenic or subcooled surfaces to limit propellant boil-off, maintain structural integrity of metallic structures during ascent or re-entry and prevent ice formation;

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- (JJ) “Cyanoacrylate adhesive” means a fast-setting, single component adhesive that cures at room temperature and contains methyl, ethyl, methoxymethyl or other functional groupings of cyanoacrylate;
- (KK) “Deadener” means a specialty coating applied to selected vehicle surfaces primarily for the purpose of reducing the sound of road noise in the passenger compartment;
- (LL) “Dip coating” means a method of applying a coating to a surface by submersion into and removal from a coating bath;
- (MM) “Drum” means any cylindrical metal container larger than 12 gallons capacity and less than or equal to 110 gallons capacity;
- (NN) “Dry lubricative material” means a coating consisting of lauric acid, cetyl alcohol, waxes or other non-cross linked or resin-bound materials that act as a dry lubricant;
- (OO) “Electric dissipating coating” means a coating that rapidly dissipates a high-voltage electric charge;
- (PP) “Electric-insulating and thermal-conducting coating” means a coating that displays an electrical insulation of at least 1000 volts DC per mil on a flat test plate and an average thermal conductivity of at least 0.27 BTU per hour-foot-degree-Fahrenheit;
- (QQ) “Electric-insulating varnish” means a coating applied to electric motors, components of electric motors or power transformers to provide electrical, mechanical and environmental protection or resistance;
- (RR) “Electric or radiation-effect coating” means a coating or coating system engineered to interact, through absorption or reflection, with specific regions of the electromagnetic energy spectrum, such as the ultraviolet, visible, infrared or microwave regions. Uses include, but are not limited to, lightning strike protection, electromagnetic pulse (EMP) protection and radar avoidance.
- (SS) “Electrostatic application” means a method of applying coating particles or coating droplets to a grounded surface by electrically charging such particles or droplets;
- (TT) “Electrostatic discharge and electromagnetic interference coating” or “EMI coating” means a coating applied to space vehicles, missiles, aircraft radomes and helicopter blades to disperse static energy or reduce electromagnetic interference;
- (UU) “Electrostatic preparation coating” means a coating applied to a plastic part solely to provide conductivity for the subsequent application of a primer, a topcoat or other coating through the use of electrostatic application methods;

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- (VV) “Elevated-temperature Skydrol-resistant commercial primer” means a primer applied primarily to commercial aircraft or commercial aircraft adapted for military use that must withstand immersion in phosphate-ester hydraulic fluid (Skydrol 500b or equivalent) at the elevated temperature of 150°F for 1,000 hours;
- (WW) “EMI/RFI shield coating” means a coating that functions to attenuate electromagnetic interference or radio frequency interference signals;
- (XX) “Epoxy polyamide topcoat” means a coating containing epoxy and a polyamide component used to provide a hard, durable, chemical-resistant finish;
- (YY) “Etching filler” means a coating that contains less than 23% solids by weight and at least 0.5% acid by weight and is used as a substitute for the application of a pretreatment coating followed by a primer;
- (ZZ) “Exempt compound” means a carbon compound excluded from the definition of “volatile organic compound” as defined in section 22a-174-1 of the Regulations of Connecticut State Agencies;
- (AAA) “Extreme high-gloss coating” means a coating that, when tested by American Society for Testing Material Test Method D523-08, Standard Test Method for Specular Gloss, shows a reflectance of 75 or more on a 60 degree meter;
- (BBB) “Extreme performance coating” means a coating used on a metal surface where the coated surface is, in its intended use, subject to one of the following conditions:
- (i) Chronic exposure to corrosive, caustic or acidic agents, chemicals, chemical fumes, chemical mixtures or solution,
 - (ii) Repeated exposure to temperatures in excess of 250°F, or
 - (iii) Repeated heavy abrasion, including mechanical wear and repeated scrubbing with industrial grade solvents, cleaners or scouring agents;
- (CCC) “Fire-resistant interior coating” means, for civilian aircraft, fire-resistant interior coatings used on passenger cabin interior parts that are subject to Federal Aviation Administration fireworthiness requirements. For military aircraft, fire-resistant interior coatings are used on parts that are subject to the flammability requirements of MIL-STD-1630A and MIL-A-87721. For space applications, “fire-resistant interior coating” means a coating subject to the flammability requirements of SE-R-0006 and SSP 30233;
- (DDD) “Flexible primer” means a primer with elastomeric qualities that provides a compatible, flexible substrate over bonded sheet rubber and rubber-type coatings;

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- (EEE) “Flight test coating” means a coating applied to aircraft other than missiles or single-use aircraft prior to flight testing to protect the aircraft from corrosion and to provide required marking during flight test evaluation;
- (FFF) “Flow coating” means a non-atomized technique of applying coating to a substrate using a fluid nozzle in a fan pattern with no air supplied to the nozzle;
- (GGG) “Fuel tank adhesive” means an adhesive that must be compatible with fuel tank coatings and is used to bond components exposed to fuel;
- (HHH) “Fuel tank coating” means a coating applied to fuel tank components for the purpose of corrosion or bacterial growth inhibition and to assure sealant adhesion in extreme environmental conditions;
- (III) “Heat-resistant coating” means a coating able to withstand a temperature of at least 400° F during normal use;
- (JJJ) “High temperature coating” means a coating certified to withstand a temperature of 1000°F for 24 hours;
- (KKK) “HVLP spray application” means to apply a coating using a coating application system that uses lower air pressure and higher volume than conventional air atomized spray systems, where the manufacturer has represented that the system is HVLP by affixing a permanent label or through representations on the packaging or other product literature;
- (LLL) “Insulation covering” means material that is applied to foam insulation to protect the insulation from mechanical or environmental damage;
- (MMM) “Intermediate release coating” means a thin coating applied beneath topcoats to assist in removing the topcoat in depainting operations and to allow the use of less hazardous depainting methods;
- (NNN) “Lacquer” means a clear or pigmented coating formulated with a nitrocellulose or synthetic resin to dry by evaporation without a chemical reaction. “Lacquers” are resolvable in their original solvent;
- (OOO) “Medical device” means an instrument, apparatus, implement, machine, gadget, appliance, implant, *in vitro* reagent or other similar or related article, including any component, part or accessory, which meets one of the following conditions:
- (i) Recognized in the official National Formulary or the United States Pharmacopeia or any supplement thereto,
 - (ii) Intended for use in the diagnosis of disease or other conditions or in the cure, mitigation, treatment or prevention of disease in persons or animals,
or

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- (iii) Intended to affect the structure or function of the body of a person or animal and which does not achieve its primary intended purposes through chemical action within or on such body and which is not dependent upon being metabolized for the achievement of its primary intended purposes;
- (PPP) “Metalized epoxy coating” means a coating that contains relatively large quantities of metallic pigmentation for appearance or added protection;
- (QQQ) “Metallic coating” means a coating that contains more than five grams of metal particles per liter of coating, as applied;
- (RRR) “Miscellaneous metal and plastic parts” means metal and plastic components of products as well as the products themselves constructed either entirely or partially from metal or plastic including, but not limited to: aerospace vehicles and components, fabricated metal products, molded plastic parts, 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, extruded aluminum structural components, railroad cars, lawn and garden equipment, business machines, laboratory and medical equipment, electronic equipment, steel drums, metal pipes and small appliances;
- (SSS) “Mold-seal coating” means the initial coating applied to a new mold or a repaired mold to provide a smooth surface that, when coated with a mold release coating, prevents products from sticking to the mold;
- (TTT) “Mold release” means a coating applied to a mold surface to prevent the molded piece from sticking to the mold as it is removed;
- (UUU) “Motor vehicle” means any self-propelled vehicle, including, but not limited to, cars, trucks, buses, golf carts, vans, motorcycles, tanks and armored personnel carriers;
- (VVV) “Multi-component coating” means a coating requiring the addition of a separate reactive resin, such as a catalyst or hardener, before application to form an acceptable dry film;
- (WWW) “Nonstructural adhesive” means an adhesive that bonds nonload bearing aerospace components in noncritical applications and is not covered in any other specialty adhesive categories;
- (XXX) “One-component coating” means a coating that is ready for application as packaged for sale, except for the addition of a thinner to reduce the viscosity;
- (YYY) “Optical antireflection coating” means a coating with a low reflectance in the infrared and visible wavelength ranges that is used for antireflection on or near optical and laser hardware;

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- (ZZZ) “Optical coating” means a coating with a low reflectance in the infrared and visible wavelength range that is used on or near optical or laser lenses or hardware;
- (AAAA) “Overall control efficiency” means the product of the capture efficiency and the control device efficiency;
- (BBBB) “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 element;
- (CCCC) “Part marking coating” means coatings or inks used to make identifying markings on materials, components or assemblies. These markings may be either permanent or temporary;
- (DDDD) “Plastic part” means any piece or combination of pieces of which at least one has been formed from one or more resins. Such pieces may be solid, porous, flexible or rigid. “Plastic parts” do not include parts made of fiberglass or composite materials;
- (EEEE) “Prefabricated architectural component coating” means a coating applied to prefabricated metal parts and products that are to be used as architectural appurtenances or structures and that are detached from the structure when coated in a shop environment;
- (FFFF) “Pretreatment coating” means a coating, containing at least 0.5 percent acid by weight, applied directly to a metal surface to provide surface etching, adhesion and ease of stripping;
- (GGGG) “Primer” means a coating applied to prevent corrosion, provide protection or provide a surface for adhesion of subsequent coatings;
- (HHHH) “Radome” means the nonmetallic protective housing for electromagnetic transmitters and receivers such as radar or electronic countermeasures;
- (IIII) “Rain erosion-resistant coating” means a coating or coating system used to protect the leading edges of parts, such as flaps, stabilizers, radomes or engine inlet nacelles against erosion caused by rain impact during flight;
- (JJJJ) “Related cleaning” means the removal of uncured coatings, coating residue and contaminants from:
- (i) miscellaneous metal and plastic parts prior to the application of coatings,
 - (ii) miscellaneous metal and plastic parts between coating applications, or
 - (iii) transfer lines, storage tanks, spray booths and coating application equipment;

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- (KKKK) “Repair coating” means a coating used to recoat portions of a product that has sustained mechanical damage to the coating following normal painting operations;
- (LLLL) “Resin” means any of numerous physically similar polymerized synthetics or chemically modified natural materials including thermoplastic materials such as polyvinyl, polystyrene and polyethylene and thermosetting materials such as polyesters, epoxies and silicones;
- (MMMM) “Resist coating” means a coating that is applied to a plastic part before metallic plating to prevent deposits of metal on portions of the plastic part;
- (NNNN) “Rocket motor nozzle coating” means a catalyzed epoxy coating system used in elevated temperature applications on rocket motor nozzles;
- (OOOO) “Roll coating” means a coating method using a machine that applies coating to a substrate by continuously transferring coating through a set of oppositely rotating rollers;
- (PPPP) “Rubber-based adhesive” means a quick-setting contact cement that provides a strong, yet flexible bond between two substrates that may be of dissimilar materials;
- (QQQQ) “Safety-indicating coating” means a coating that changes in a physical characteristic, such as color, to indicate unsafe conditions;
- (RRRR) “Scale inhibitor” means a coating that is applied to the surface of a part prior to thermal processing to inhibit scale formation;
- (SSSS) “Screen print ink” means an ink used in screen printing processes during fabrication of decorative laminates and decals;
- (TTTT) “Sealant” means a material used to prevent the intrusion of water, fuel, air or other liquids or solids from certain areas of aerospace vehicles or components;
- (UUUU) “Seal coat maskant” means an overcoat applied over a maskant to improve abrasion and chemical resistance during production operations;
- (VVVV) “Self-priming topcoat” means a topcoat that is applied directly to an uncoated aerospace vehicle or component for corrosion prevention, environmental protection or functional fluid resistance. More than one layer of identical coating formulation may be applied to the vehicle or component;
- (WWWW) “Shock-free coating” means a coating applied to electrical components to protect the user from electric shock. The coating provides for low capacitance and high resistance and resists breaking down under high voltage;

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- (XXXX) “Silicone insulation material” means an insulating material applied to exterior metal surfaces for protection from high temperatures caused by atmospheric friction or engine exhaust. “Silicone insulation materials” differ from ablative coatings in that “silicone insulation materials” are not sacrificial;
- (YYYY) “Silicone-release coating” means any coating that contains silicone resin and is intended to prevent food from sticking to metal surfaces such as baking pans;
- (ZZZZ) “Solar-absorbent coating” means a coating that has as its primary purpose the absorption of solar radiation;
- (AAAAA) “Solid-film lubricant” means a very thin coating consisting of a binder system containing as its chief pigment material one or more of molybdenum disulfide, graphite, polytetrafluoroethylene or other solids that act as a dry lubricant between faying surfaces;
- (BBBBB) “Space vehicle” means a man-made device, either manned or unmanned, designed for operation beyond earth's atmosphere. This definition includes integral equipment such as models, mock-ups, prototypes, molds, jigs, tooling, hardware jackets and test coupons. “Space vehicle” includes auxiliary equipment associated with test, transport and storage, which through contamination can compromise the space vehicle performance;
- (CCCCC) “Specialty coating” means a coating that, even though it meets the definition of a primer, topcoat or self-priming topcoat, has additional performance criteria beyond those of primers, topcoats and self-priming topcoats for specific applications. These performance criteria may include, but are not limited to, temperature or fire resistance, substrate compatibility, antireflection, temporary protection or marking, sealing, adhesion or enhanced corrosion protection;
- (DDDDD) “Specialized function coating” means a coating that fulfills extremely specific engineering requirements. A “specialized function coating” is limited in application, characterized by low volume usage and is not able to be categorized as any other coating in Table 20(s)-6a;
- (EEEEE) “Stencil coating” means an ink or a coating that is rolled or brushed onto a template or stamp to add identifying letters or numbers to metal parts or products;
- (FFFFF) “Structural autoclavable adhesive” means an adhesive used to bond load-carrying aerospace components that is cured by heat and pressure in an autoclave;
- (GGGGG) “Structural nonautoclavable adhesive” means an adhesive cured under ambient conditions that is used to bond load-carrying aerospace components or other critical functions, such as nonstructural bonding in the proximity of engines;
- (HHHHH) “Temporary protective coating” means a coating applied to provide scratch or corrosion protection during manufacturing, storage or transportation.

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“Temporary protective coatings” do not include coatings that protect against strong acid or alkaline solutions;

(IIII) “Texture coat” means a coating that is applied to a plastic part which, in its finished form, consists of discrete raised spots of the coating;

(JJJJ) “Textured finish” means a rough surface produced by spraying and splattering large drops of coating onto a previously applied coating;

(KKKKK) “Thermal control coating” means a coating formulated with specific thermal conductive or radiative properties to permit temperature control of the substrate;

(LLLLL) “Touch-up coating” means a coating used to cover minor coating imperfections appearing after the main coating operation;

(MMMMM) “Transfer efficiency” means the portion of coating solids that adheres to the metal or plastic surface during the application process, expressed as a percentage of the total volume of coating solids delivered by the applicator;

(NNNNN) “Translucent coating” means a coating which contains binders and pigment and is formulated to form a colored, but not opaque, film;

(OOOOO) “Vacuum-metalizing coating” means an undercoat applied to a substrate on which metal is deposited or an overcoat applied directly to a metal film;

(PPPPP) “Wet fastener installation coating” means a primer or sealant applied by dipping, brushing or daubing to fasteners that are installed before the coating is cured; and

(QQQQQ) “Wing coating” means a corrosion-resistant topcoat that withstands the flexing of aircraft wings.

(2) Applicability.

(A) Except as provided in subdivision (7) of this subsection, the provisions of this subsection apply to the owner or operator of any miscellaneous metal and plastic parts coating unit:

(i) That is subject to this subsection prior to January 1, 2013, or

(ii) For which the owner purchases for use at the premises 855 gallons or more of coatings and cleaning solvents in aggregate per rolling 12-month period.

(B) An owner or operator subject to this subsection shall:

(i) For an existing miscellaneous metal and plastic parts coating unit, comply with the requirements of this subsection no later than January 1, 2013, or

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(ii) For a miscellaneous metal and plastic parts coating unit that commences operation after January 1, 2013, comply with the requirements of this subsection upon commencing operation.

(C) Any owner or operator subject to this subsection shall remain subject to this subsection.

(3) Except as provided in subdivision (7) of this subsection, on and after January 1, 2013, no owner or operator shall apply any coating, inclusive of any VOC-containing material added to the original coating supplied by the manufacturer, unless the owner or operator controls emissions of VOCs in accordance with subparagraph (A), (B), (C) or (D) of this subdivision. If more than one emission limit or emission rate applies in a particular situation, then the least restrictive limit or emission rate shall apply. An owner or operator shall control the emission of VOCs, as follows:

(A) Use only coatings that have an as applied VOC content no greater than the applicable level in Table 20(s)-1, 20(s)-2, 20(s)-3, 20(s)-4, 20(s)-5, 20(s)-6a or 20(s)-6b.

(B) For a coating unit, use a combination of low-VOC coatings and add-on air pollution control equipment to achieve a VOC emission rate no greater than the applicable level in Table 20(s)-7, 20(s)-8, 20(s)-9, or 20(s)-10.

(C) Install, operate and maintain according to the manufacturer's recommendations air pollution control equipment with an overall control efficiency of at least 90%.

(D) An alternative means, achieving a level of control equivalent to subparagraph (A), (B) or (C) of this subdivision, requested from and approved by the commissioner in accordance with subsection (cc) of this section.

(4) Application methods. Except as provided in subdivision (7) of this subsection, an owner or operator shall not apply a VOC-containing coating to a miscellaneous metal and plastic part unless the coating is applied by one of the methods identified in subparagraphs (A) through (I) of this subdivision using equipment operated in accordance with the specifications of the equipment manufacturer:

(A) Electrostatic application;

(B) Flow coating;

(C) Dip coating;

(D) Roll coating;

(E) HVLP spray application;

(F) Airless spray application;

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- (G) Air-assisted airless spray application;
 - (H) Hand application; or
 - (I) Any other coating application method capable of achieving a transfer efficiency equivalent to or better than that provided by HVLP spray application. Any owner or operator using an application method pursuant to this subparagraph shall maintain records demonstrating the transfer efficiency achieved.
- (5) Work practices. Each owner or operator shall use the following work practices:
- (A) New and used VOC-containing coating or cleaning solvent, including a coating mixed on the premises, shall be stored in a nonabsorbent, non-leaking container. Such a container shall be kept closed at all times except when the container is being filled, emptied or is otherwise actively in use;
 - (B) Spills and leaks of VOC-containing coating or cleaning solvent shall be minimized. Any leaked or spilled VOC-containing coating or cleaning solvent shall be absorbed and removed immediately;
 - (C) Absorbent applicators, such as cloth and paper, which are moistened with a VOC-containing coating or solvent, shall be stored in a closed, nonabsorbent, non-leaking container for disposal or recycling; and
 - (D) VOC-containing coating and cleaning solvent shall be conveyed from one location to another in a closed container or pipe.
- (6) Notwithstanding the requirements of this subsection, an owner or operator complying with this subsection by operating under a valid permit or order issued pursuant to subsection (cc)(2) or (cc)(3) of this section shall continue to operate according to the terms of such permit or order.
- (7) Exemptions and exceptions.
- (A) Except as provided in subdivision (8) of this subsection, the requirements of this subsection shall not apply to any of the following activities, and the VOC emissions resulting from the following activities shall not be included in determinations pursuant to subdivision (2) or (7)(G) of this subsection:
 - (i) Coating and cleaning subject to one of the following subsections of this section: (l) through (r) and (hh) through (kk),
 - (ii) Coating applied in an automotive refinishing operation and related cleaning,
 - (iii) Coating and associated surface preparation and cleanup subject to section 22a-174-41 of the Regulations of Connecticut State Agencies.

- (iv) Coating applied to test materials, test panels and coupons in research and development, quality control or performance testing.
 - (v) Coating applied in a shipbuilding and repair operation, provided that the operation is subject to and operating in compliance with 40 CFR 63 Subpart II.
 - (vi) Coating applied to space vehicles and related cleaning.
 - (vii) Coating applied to antique aerospace vehicles and related cleaning.
 - (viii) Coating applied with a hand-held aerosol can.
 - (ix) Adhesive, sealant, adhesive primer or sealant primer regulated by section 22a-174-44 of the Regulations of Connecticut State Agencies.
 - (x) Quality control or inspection dyes applied to metal parts.
 - (xi) Use of coatings containing VOC at concentrations less than 1.0 percent by weight, or
 - (xii) Use of cleaning solvents containing VOC at concentrations less than 5.0 percent by weight.
- (B) The requirements of subdivisions (3) and (4) of this subsection shall not apply to the application of any of the following coatings to metal parts:
- (i) Stencil coating.
 - (ii) Safety-indicating coating.
 - (iii) Solid-film lubricant.
 - (iv) Electric-insulating and thermal-conducting coating.
 - (v) Magnetic data storage disk coating.
 - (vi) Plastic extruded onto metal parts to form a coating, or
 - (vii) Powder coating.
- (C) The requirements of subdivision (3) of this subsection shall not apply to the application of any of the following coatings to plastic parts:
- (i) Touch-up and repair coating.
 - (ii) Stencil coating applied on a clear or transparent substrate.

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- (iii) Clear or translucent coating.
 - (iv) Reflective coating applied to a highway cone.
 - (v) Mask coating less than 0.5 millimeter thick applied to an area less than 25 square inches.
 - (vi) EMI/RFI shield coating.
 - (vii) Any heparin-benzalkonium chloride (HBAC)-containing coating applied to a medical device, provided that the total of all HBAC-containing coatings used at a facility does not exceed 100 gallons per year, or
 - (viii) Powder coating.
- (D) The requirements of subdivision (3) of this subsection shall not apply to the application of any of the following coatings to automotive-transportation and business machine parts:
- (i) Vacuum metalizing coating.
 - (ii) Gloss reducer.
 - (iii) Texture coat.
 - (iv) Adhesion primer.
 - (v) Electrostatic preparation coating.
 - (vi) Resist coating.
 - (vii) Stencil coating, or
 - (viii) Powder coating.
- (E) The requirements of subdivisions (3) and (4) of this subsection shall not apply to the application of any of the following specialty coatings to an aerospace vehicle or component:
- (i) Touch-up coating, or
 - (ii) Aerospace coating that the United States Department of Defense has designated as classified information in accordance with 32 CFR 2001.
- (F) The requirements of subdivision (4) of this subsection shall not apply to the following activities:

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- (i) Application of touch-up and repair coating to metal parts.
- (ii) Application of textured finish to metal parts.
- (iii) Application of powder coating to:
 - (I) Plastic parts.
 - (II) Automotive-transportation plastic parts, or
 - (III) Business machine plastic parts.
- (iv) Airbrush application of coating to metal or plastic parts using no more than five gallons of coating per year.
- (v) Use of air pollution control equipment to comply with subdivision (3) of this subsection, or
- (vi) Application of specialty coatings listed in Table 20(s)-6a of this subsection.
- (G) An owner or operator with total potential VOC emissions from all miscellaneous metal and plastic parts coating, including emissions from related cleaning, limited by permit or order of the commissioner to 1,666 pounds or less in any calendar month, shall not be subject to the requirements of subdivision (3) of this subsection, provided that the owner or operator operates in compliance with such a permit or an order.
- (H) An owner or operator may use in aggregate in any 12 consecutive months no more than 55 gallons of miscellaneous metal or plastic parts coating or coatings that exceed the VOC content limits or emission limits of subdivision (3) of this subsection provided the owner or operator maintains records of non-compliant coating use.
- (I) An owner or operator controlling emissions as provided in subdivision (3) of this subsection is exempt from any obligation to comply with subsection (bb) of this section.
- (J) The requirements of subdivision (3) of this subsection shall not apply, upon request to and approval by the commissioner. Any request for approval shall be made in writing to the commissioner and shall include a description of the noncompliant coating and its VOC content, an explanation of why the noncompliant coating is necessary, the aggregate amount in gallons or pounds of noncompliant coating use anticipated in a 12-month period and the frequency of use of the noncompliant coating.

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(8) Records.

- (A) An owner or operator shall maintain records of information sufficient to determine compliance with the applicable requirements of this subsection, including, at a minimum, the information described in subparagraph (B) of this subdivision. All such records shall be:
- (i) Made available to the commissioner to inspect and copy upon request, and
 - (ii) Maintained for five years from the date such record is created.
- (B) An owner or operator shall maintain records of the following information for each calendar month:
- (i) Name and description of each coating and cleaning solvent,
 - (ii) VOC content of each coating and cleaning solvent, as applied, and the associated calculations,
 - (iii) VOC content of each coating or cleaning solvent, as supplied,
 - (iv) The amount of each coating and cleaning solvent:
 - (I) Purchased, or
 - (II) Actually used,
 - (v) A Material Safety Data Sheet, Environmental Data Sheet, Certified Product Data Sheet, or an equivalent data sheet for each coating and cleaning solvent,
 - (vi) Documentation of control device efficiency and capture efficiency, if applicable, using an applicable EPA reference method or alternate method as approved by the commissioner, and
 - (vii) Date and type of maintenance performed on air pollution control equipment, if applicable.
- (C) Any owner or operator who does not meet the applicability thresholds provided in subdivision (2)(A) of this subsection shall maintain either material purchase or actual usage records to verify that this subsection does not apply to such owner or operator.
- (D) An owner or operator operating pursuant to an exception or exemption in subdivision (7) of this subsection shall maintain records sufficient to verify the applicability of the exception or exemption.

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(9) Compliance procedures.

- (A) The VOC content limits of Table 20(s)-1, 20(s)-2, 20(s)-3, 20(s)-4, 20(s)-5, 20(s)-6a or 20(s)-6b apply to the volume of coating as applied, determined using the following equation:

$$\text{VOC Content} = (W_s - W_w - W_{es}) / (V_m - V_w - V_{es})$$

Where:

<u>W_s</u>	=	<u>weight of volatile compounds in grams</u>
<u>W_w</u>	=	<u>weight of water in grams</u>
<u>W_{es}</u>	=	<u>weight of exempt compounds in grams</u>
<u>V_m</u>	=	<u>volume of coating in liters</u>
<u>V_w</u>	=	<u>volume of water in liters</u>
<u>V_{es}</u>	=	<u>volume of exempt compounds in liters</u>

- (B) The VOC emission rate limits of Table 20(s)-7, 20(s)-8, 20(s)-9, or 20(s)-10 apply to the mass of VOC emitted per volume of coating solids, as applied.
- (C) To determine the properties of a coating or components thereof in order to perform the calculations required pursuant to subparagraph (A) of this subdivision or to verify calculations based on the manufacturer's formulation data, the VOC and solids content of all coatings shall be determined using 40 CFR 60, Appendix A, Reference Method 24 or an equivalent method. In the case of a dispute, the VOC content determined using Reference Method 24 shall control, unless a person is able to demonstrate to the commissioner's satisfaction that the manufacturer's formulation data are correct.
- (D) For red, yellow or black automotive coatings, except touch-up and repair coatings, the applicable VOC content limit or emission rate shall be the limit of Table 20(s)-3 or 20(s)-9, as applicable, multiplied by 1.15.
- (E) Where a VOC content limit or emissions rate is provided in metric units and equivalent English units, the limit or rate in metric units defines the standard. The English units are provided for information only.
- (F) A miscellaneous metal or plastic parts coating shall be defined and categorized based on the manufacturer's representations as set out on the container or label or in information provided by the manufacturer of such a miscellaneous metal or plastic parts coating.

(10) Limitations on potential to emit; modification of permits or orders issued prior to January 1, 2013. An owner or operator issued a permit or order prior to January 1, 2013 pursuant to former section 22a-174-20(s)(7) of the Regulations of Connecticut State Agencies may:

- (A) Continue after January 1, 2013 to conduct miscellaneous metal parts coating in compliance with such a permit or order; or

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- (B) Submit a request to the commissioner to revise or modify the order or permit to include any miscellaneous plastic and metal part coating at the premises in the monthly limit of 1,666 pounds of VOC, as provided in subsection (s)(7)(G) of this section. Such a request shall be submitted no later than January 1, 2013.

<u>Coating Category</u>	<u>Air Dried</u>		<u>Baked</u>	
	<u>g VOC/ liter coating</u>	<u>lbs VOC/ gal coating</u>	<u>g VOC/ liter coating</u>	<u>lbs VOC/ gal coating</u>
<u>General one-component</u>	<u>340</u>	<u>2.8</u>	<u>280</u>	<u>2.3</u>
<u>General multi-component</u>	<u>340</u>	<u>2.8</u>	<u>280</u>	<u>2.3</u>
<u>Camouflage</u>	<u>420</u>	<u>3.5</u>	<u>420</u>	<u>3.5</u>
<u>Electric-insulating varnish</u>	<u>420</u>	<u>3.5</u>	<u>420</u>	<u>3.5</u>
<u>Etching filler</u>	<u>420</u>	<u>3.5</u>	<u>420</u>	<u>3.5</u>
<u>Extreme high-gloss</u>	<u>420</u>	<u>3.5</u>	<u>360</u>	<u>3.0</u>
<u>Extreme performance</u>	<u>420</u>	<u>3.5</u>	<u>360</u>	<u>3.0</u>
<u>Heat-resistant</u>	<u>420</u>	<u>3.5</u>	<u>360</u>	<u>3.0</u>
<u>High performance architectural</u>	<u>740</u>	<u>6.2</u>	<u>740</u>	<u>6.2</u>
<u>High temperature</u>	<u>420</u>	<u>3.5</u>	<u>420</u>	<u>3.5</u>
<u>Metallic</u>	<u>420</u>	<u>3.5</u>	<u>420</u>	<u>3.5</u>
<u>Mold-seal</u>	<u>420</u>	<u>3.5</u>	<u>420</u>	<u>3.5</u>
<u>Pan backing</u>	<u>420</u>	<u>3.5</u>	<u>420</u>	<u>3.5</u>
<u>Prefabricated architectural multi-component</u>	<u>420</u>	<u>3.5</u>	<u>280</u>	<u>2.3</u>
<u>Prefabricated architectural one-component</u>	<u>420</u>	<u>3.5</u>	<u>280</u>	<u>2.3</u>
<u>Pretreatment coating</u>	<u>420</u>	<u>3.5</u>	<u>420</u>	<u>3.5</u>
<u>Repair and touch-up</u>	<u>420</u>	<u>3.5</u>	<u>360</u>	<u>3.0</u>
<u>Silicone release</u>	<u>420</u>	<u>3.5</u>	<u>420</u>	<u>3.5</u>
<u>Solar-absorbent</u>	<u>420</u>	<u>3.5</u>	<u>360</u>	<u>3.0</u>
<u>Vacuum-metalizing</u>	<u>420</u>	<u>3.5</u>	<u>420</u>	<u>3.5</u>
<u>Drum coating, new, exterior</u>	<u>340</u>	<u>2.8</u>	<u>340</u>	<u>2.8</u>
<u>Drum coating, new, interior</u>	<u>420</u>	<u>3.5</u>	<u>420</u>	<u>3.5</u>
<u>Drum coating, reconditioned, exterior</u>	<u>420</u>	<u>3.5</u>	<u>420</u>	<u>3.5</u>
<u>Drum coating, reconditioned, interior</u>	<u>500</u>	<u>4.2</u>	<u>500</u>	<u>4.2</u>

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Coating Category	g VOC/liter coating	lbs VOC/gal coating
General one-component	280	2.3
General multi-component	420	3.5
Electric dissipating coatings and shock-free coating	800	6.7
Extreme performance multi-component	420	3.5
Metallic	420	3.5
Mold-seal	760	6.3
Multi-colored coating	680	5.7
Optical coating	800	6.7
Vacuum-metalizing	800	6.7

Coating Category	g VOC/liter coating	lbs VOC/gal coating
I. High bake coatings – interior and exterior parts		
Flexible primer	540	4.5
Non-flexible primer	420	3.5
Base coat	520	4.3
Clear coat	480	4.0
Non-basecoat/clear coat	520	4.3
II. Low bake/air dried coatings – exterior parts		
Primer	580	4.8
Basecoat	600	5.0
Clearcoat	540	4.5
Non-basecoat/clearcoat	600	5.0
III. Low bake/air dried coatings – interior parts	600	5.0
IV. Touchup and repair coating	620	5.2

Coating Category	g VOC/liter coating	lbs VOC/gal coating
I. Primers	350	2.9
II. Topcoat	350	2.9
III. Texture coat	350	2.9
IV. Fog coat	260	2.2
V. Touchup and repair	350	2.9

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Coating Category	g VOC/liter coating	lbs VOC/gal coating
Motor vehicle cavity wax	650	5.4
Motor vehicle sealer	650	5.4
Motor vehicle deadener	650	5.4
Motor vehicle gasket/gasket sealing material	200	1.7
Motor vehicle underbody coating	650	5.4
Motor vehicle trunk interior coating	650	5.4
Motor vehicle bedliner coating	200	1.7
Motor vehicle lubricating wax/compound	700	5.8

Coating type	g VOC/liter coating
Ablative coating	600
Adhesion promoter	890
Adhesive bonding primers:	
Cured at 250°F or below	850
Cured above 250°F	1030
Adhesives:	
Commercial interior adhesive	760
Cyanoacrylate adhesive	1,020
Fuel tank adhesive	620
Nonstructural adhesive	360
Rocket motor bonding adhesive	890
Rubber-based adhesive	850
Structural autoclavable adhesive	60
Structural nonautoclavable adhesive	850
Aerospace high-temperature coating	850
Antichafe coating	660
Bearing coating	620
Caulking and smoothing compounds	850
Chemical agent-resistant coating	550
Clear coating	720
Commercial exterior aerodynamic structure primer	650
Compatible substrate primer	780
Corrosion prevention compound	710
Cryogenic flexible primer	645
Cryoprotective coating	600
Dry lubricative material	880

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<u>Electric or radiation-effect coating</u>	<u>800</u>
<u>Electrostatic discharge and electromagnetic interference (EMI) coating</u>	<u>800</u>
<u>Elevated-temperature Skydrol-resistant commercial primer</u>	<u>740</u>
<u>Epoxy polyamide topcoat</u>	<u>660</u>
<u>Fire-resistant interior coating</u>	<u>800</u>
<u>Flexible primer</u>	<u>640</u>
<u>Flight-test coatings:</u>	
<u>Missile or single use aircraft</u>	<u>420</u>
<u>All other</u>	<u>840</u>
<u>Fuel-tank coating</u>	<u>720</u>
<u>Insulation covering</u>	<u>740</u>
<u>Intermediate release coating</u>	<u>750</u>
<u>Lacquer</u>	<u>830</u>
<u>Maskants:</u>	
<u>Bonding maskant</u>	<u>1,230</u>
<u>Critical use and line sealer maskant</u>	<u>1,020</u>
<u>Seal coat maskant</u>	<u>1,230</u>
<u>Metallized epoxy coating</u>	<u>740</u>
<u>Mold release</u>	<u>780</u>
<u>Optical anti-reflective coating</u>	<u>750</u>
<u>Part marking coating</u>	<u>850</u>
<u>Pretreatment coating</u>	<u>780</u>
<u>Rain erosion-resistant coating</u>	<u>850</u>
<u>Rocket motor nozzle coating</u>	<u>660</u>
<u>Scale inhibitor</u>	<u>880</u>
<u>Screen print ink</u>	<u>840</u>
<u>Sealants:</u>	
<u>Extrudable/rollable/brushable sealant</u>	<u>280</u>
<u>Sprayable sealant</u>	<u>600</u>
<u>Silicone insulation material</u>	<u>850</u>
<u>Solid film lubricant</u>	<u>880</u>
<u>Specialized function coating</u>	<u>890</u>
<u>Temporary protective coating</u>	<u>320</u>
<u>Thermal control coating</u>	<u>800</u>
<u>Wet fastener installation coating</u>	<u>675</u>
<u>Wing coating</u>	<u>850</u>

Table 20(s)-6b
Aerospace Coating VOC Content Limits

<u>Coating type</u>	<u>g VOC/liter coating</u>
<u>Primer – general aviation rework facilities</u>	<u>540</u>
<u>Exterior primer – large commercial aircraft components</u>	<u>650</u>
<u>Exterior primer – fully assembled, large commercial aircraft</u>	<u>650</u>
<u>Primer</u>	<u>350</u>
<u>Topcoat</u>	<u>420</u>

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Topcoat – general aviation rework facilities	540
Self-priming topcoat	420
Self-priming topcoat – general aviation rework facilities	540
Type I chemical milling maskant	622
Type II chemical milling maskant	160

Coating Category	Air Dried		Baked	
	g VOC/ liter solids	lb VOC/ gal solids	g VOC/ liter solids	lb VOC/ gal solids
General one-component	540	4.52	400	3.35
General multi-component	540	4.52	400	3.35
Camouflage	800	6.67	800	6.67
Electric-insulating varnish	800	6.67	800	6.67
Etching filler	800	6.67	800	6.67
Extreme high-gloss	800	6.67	610	5.06
Extreme performance	800	6.67	610	5.06
Heat-resistant	800	6.67	610	5.06
High performance architectural	4560	38	4560	38
High temperature	800	6.67	800	6.67
Metallic	800	6.67	800	6.67
Mold-seal	800	6.67	800	6.67
Pan backing	800	6.67	800	6.67
Prefabricated architectural multi-component	800	6.67	400	3.35
Prefabricated architectural one-component	800	6.67	400	3.35
Pretreatment coating	800	6.67	800	6.67
Silicone release	800	6.67	800	6.67
Solar-absorbent	800	6.67	610	5.06
Vacuum-metalizing	800	6.67	800	6.67
Drum coating, new, exterior	540	4.52	540	4.52
Drum coating, new, interior	800	6.67	800	6.67
Drum coating, reconditioned, exterior	800	6.67	800	6.67
Drum coating, reconditioned, interior	1170	9.78	1170	9.78

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Table 20(s)-8		
Plastic Parts Coating VOC Emission Rate Limits		
Coating Category	g VOC/liter solids	lbs VOC/gal solids
General one-component	400	3.35
General multi-component	800	6.67
Electric dissipating coatings and shock-free coatings	8960	74.7
Extreme performance multi-component	800	6.67
Metallic	800	6.67
Mold-seal	5240	43.7
Multi-colored coatings	3040	25.3
Optical coatings	8960	74.7
Vacuum-metalizing	8960	74.7

Table 20(s)-9		
Automotive-Transportation Plastic Parts Coating VOC Emission Rate Limits		
Coating Category	g VOC/liter solids	lbs VOC/gal solids
I. High bake coatings – interior and exterior parts		
Flexible primer	1390	11.58
Non-flexible primer	800	6.67
Base coat	1240	10.34
Clear coat	1050	8.76
Non-basecoat/clear coat	1240	10.34
II. Low bake/air dried coatings – exterior parts		
Primer	1660	13.8
Basecoat	1870	15.59
Clearcoat	1390	11.58
Non-basecoat/clearcoat	1870	15.59
III. Low bake/air dried coatings – interior parts		
	1870	15.59
IV. Touch-up and repair coating		
	2130	17.72

Table 20(s)-10		
Business Machine Plastic Parts Coating VOC Emission Rate Limits		
Coating Category	g VOC/liter solids	lbs VOC/gal solids
I. Primers	570	4.80
II. Topcoat	570	4.80
III. Texture coat	570	4.80
IV. Fog coat	380	3.14
V. Touchup and repair	570	4.80

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Sec. 2. Subdivision (1) of subsection (aa) of section 22a-174-20 of the Regulations of Connecticut State Agencies is amended to read as follows:

(aa) Record keeping requirements and test methods.

(1) The owner or “operator” of any premise subject to the provisions of subsections (m) through [(s)] (r) inclusive and subsection (v) of section 22a-174-20 shall maintain daily records of all coatings and diluents used. Such records shall be kept for each individual machine, operation or coating line. The records must contain the information required below.

- (A) description of the coating including the coating name and the coating density in pounds per gallon;
- (B) “volatile organic compound” content by weight;
- (C) water and exempt volatile organic compound content by weight;
- (D) non-volatile content by volume and by weight;
- (E) amount of each coating used in gallons;
- (F) total amount of diluent used for each coating in pounds and in gallons.

Sec. 3. Subdivisions (2) and (3) of subsection (cc) of section 22a-174-20 of the Regulations of Connecticut State Agencies are amended to read as follows:

[(cc)(2)] (2) The implementation of an alternative emission reduction plan instead of compliance with the [“emissions limitation[”] prescribed in any one of subsections (m) through (v), [inclusive and] (ee) or (ff) through (kk) of this section must be expressly approved by the [“Commissioner”] commissioner through the issuance of a permit or an order in accordance with the provisions of section 22a-174-12 of the Regulations of Connecticut State Agencies and approved by the [“administrator”] Administrator in accordance with the provisions of 42 [U.S.C.] USC 7401-7642. After approval, any emissions in excess of those established for each emission source under the plan will be a violation of these regulations.

[(cc)(3)] (3) Where it can be shown to the satisfaction of the [“Commissioner”] commissioner that an emission source cannot be controlled to comply with any one of subsections (m) through (v), [inclusive and] (ee) or (ff) through (kk) of this section for reasons of technological and economic feasibility, the [“Commissioner”] commissioner may by permit or order accept a lesser degree of control upon the submission of satisfactory evidence that the [“stationary source[”] owner has applied [“Reasonably Available Control Technology[”] and has a plan to develop the technologies necessary to comply with [the above subsections] the applicable subsection of subsections (m) through (v), (ee) or (ff) through (kk) of this section and such action is approved by the [“administrator”] Administrator in accordance with the provisions of 42 [U.S.C.] USC 7401-7642.

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Sec. 4. Section 22a-174-20(ii)(3)(A) of the Regulations of Connecticut State Agencies is amended to read as follows:

- (A) The requirements of this subsection shall not apply to the use of cleaning solvent as follows:
- (i) In janitorial cleaning,
 - (ii) At an aerospace manufacturing and rework operation or a wood furniture coating operation in accordance with an order or a permit issued pursuant to sections 22a-174-32(e) and 22a-174-20(cc) of the Regulations of Connecticut State Agencies,
 - (iii) To perform general solvent cleaning in accordance with an order issued pursuant to section 22a-174-20(ee) of the Regulations of the Connecticut State Agencies,
 - (iv) At any aerospace manufacturing and rework facility, provided that cleaning solvent is used in accordance with the requirements of 40 CFR 63.744, inclusive of exemptions,
 - (v) As surface preparation or cleanup solvent in accordance with section 22a-174-44 of the Regulations of Connecticut State Agencies,
 - (vi) Where the cleaning solvent is regulated pursuant to section 22a-174-40 of the Regulations of Connecticut State Agencies,
 - (vii) To perform industrial solvent cleaning where such cleaning or cleaning solvent is subject to one of the following subsections of this section: (l) through (y), (ff) through (hh), or (jj),
 - (viii) In cleaning, including surface preparation prior to coating, necessary to meet a standard or specification issued or approved by the United States Department of Defense, Federal Aviation Administration or other federal government entity. Any person claiming exemption pursuant to this clause shall maintain records of the standard or specification,
 - (ix) Associated with research and development,
 - (x) Associated with quality control or laboratory testing[.] of coatings, inks or adhesives.
 - (xi) Associated with medical device manufacturing,
 - (xii) Associated with pharmaceutical manufacturing,
 - (xiii) That exceeds the applicable limit of subdivision (4)(A) of this subsection where the quantity used does not exceed 55 gallons per any twelve-month rolling aggregate. Any person claiming exemption pursuant to this clause shall record

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and maintain monthly records sufficient to demonstrate compliance with this exemption, or

- (xiv) That exceeds the applicable limit of subdivision (4)(A) of this subsection, if approved by the commissioner and the Administrator. Any request for approval shall be made in writing to the commissioner and Administrator and shall include a description of the cleaning solvent and its VOC content, an explanation of why the cleaning solvent is necessary, quantification of the amount of the VOC that will be emitted as a result of the use of the noncompliant cleaning solvent and the time period over which the noncompliant solvent will be used.

Sec. 5. Section 22a-174-20 of the Regulations of Connecticut State Agencies is amended by the addition of new subsection (kk), as follows:

(NEW)

(kk) Pleasure craft coatings

- (1) Definitions. For the purposes of this section, the following definitions apply:
 - (A) “Airless spray application” means a coating spray application system using high fluid pressure, without compressed air, to atomize the coating;
 - (B) “Air-assisted airless spray application” means a coating spray application system using fluid pressure to atomize the coating and low pressure air to adjust the shape of the spray pattern;
 - (C) “Antifouling coating” means a coating applied to the underwater portion of a pleasure craft to prevent or reduce the attachment of biological organisms;
 - (D) “Antifouling sealer or tie coat” means a coating applied over biocidal antifouling coating for the purpose of preventing release of biocides into the environment or to promote adhesion between an antifouling coating and a primer or another antifouling coating;
 - (E) “As applied” means the composition of coating, excluding water and exempt compounds, at the time it is applied to a surface, including any solvent, catalyst or other substance added to the coating;
 - (F) “Capture efficiency” means the ratio of VOC emissions delivered to the control device to the total VOC emissions resulting from pleasure craft coating and related cleaning, expressed as a percentage;
 - (G) “Control device efficiency” means the ratio of VOC emissions recovered or destroyed by the control device to the total VOC emissions that are introduced into the device, expressed as a percentage;

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- (H) “Electrostatic application” means a method of applying coating particles or coating droplets to a grounded surface by electrically charging such particles or droplets;
- (I) “Exempt compound” means a carbon compound excluded from the definition of “volatile organic compound” as defined in section 22a-174-1 of the Regulations of Connecticut State Agencies;
- (J) “Extreme high-gloss coating” means a coating that, when tested by American Society for Testing Material Test Method D523-08, Standard Test Method for Specular Gloss, shows a reflectance of 90 or more on a 60 degree meter;
- (K) “Finish primer or surfacer” means a coating applied with a wet film thickness of less than 10 millimeters prior to the application of a topcoat for purposes of providing corrosion resistance, adhesion of subsequent coatings, a moisture barrier or promotion of a uniform surface necessary for filling in surface imperfections;
- (L) “Flow coating” means a non-atomized technique of applying coating in a fan pattern to a substrate using a fluid nozzle with no air supplied to the nozzle;
- (M) “High build primer or surfacer” means a coating applied with a wet film thickness of 10 millimeters or more prior to the application of a topcoat for purposes of providing corrosion resistance, adhesion of subsequent coatings, a moisture barrier or promotion of a uniform surface necessary for filling in surface imperfections;
- (N) “High gloss coating” means a coating that, when tested by American Society for Testing Material Test Method D523-08, Standard Test Method for Specular Gloss, shows a reflectance of 85 or more on a 60 degree meter;
- (O) “HVLP spray application” means to apply a coating using a coating application system that uses lower air pressure and higher volume than conventional air atomized spray systems, where the manufacturer has represented that the system is HVLP by affixing a permanent label or through representations on the packaging or other product literature;
- (P) “Overall control efficiency” means the product of the capture efficiency and the control device efficiency;
- (Q) “Pleasure craft” means any marine or freshwater vessel manufactured or operated primarily for recreational purposes;
- (R) “Pleasure craft coating” means any marine coating, except unsaturated polyester resin (fiberglass), applied to a pleasure craft or to parts and components of a pleasure craft;

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- (S) "Pretreatment wash primer" means a coating, containing at least 0.1 percent acid by weight and no more than 25 percent solids by weight, that is used to provide surface etching and is applied directly to fiberglass and metal surfaces to provide corrosion resistance and adhesion of subsequent coatings;
 - (T) "Related cleaning" means the removal of uncured coatings, coating residue, and contaminants from:
 - (i) pleasure craft or parts and components of pleasure craft prior to the application of coatings;
 - (ii) pleasure craft or parts and components of pleasure craft between coating applications; or
 - (iii) transfer lines, storage tanks, spray booths, and coating application equipment; and
 - (U) "Transfer efficiency" means the portion of coating solids that adheres to the pleasure craft surface during the application process, expressed as a percentage of the total volume of coating solids delivered by the applicator.
- (2) Applicability.
- (A) Except as provided in subdivision (3) of this subsection, the provisions of this subsection apply to the owner or operator of any marina, boat yard, or other premises where pleasure craft coating is applied for commercial purposes at the direction of such owner or operator, if:
 - (i) Such owner or operator was subject to subsection (s) of this section prior to January 1, 2013, or
 - (ii) Such owner or operator purchases for use in all pleasure craft coating and related cleaning at the premises 855 gallons or more of coatings and cleaning solvents in aggregate per rolling 12-month period.
 - (B) An owner or operator subject to this subsection shall:
 - (i) For a source operating prior to January 1, 2013, comply with the requirements of this subsection no later than January 1, 2013, or
 - (ii) For a source that commences operation after January 1, 2013, comply with the requirements of this subsection upon commencing operation.
 - (C) Any owner or operator subject to this subsection shall remain subject to this subsection.
- (3) Exemptions and exceptions.

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- (A) Except as provided in subdivision (7) of this subsection, the requirements of this subsection shall not apply to any of the following activities, and the VOC emissions resulting from the following activities shall not be included in determinations pursuant to subdivision (2) or (4)(E) of this subsection:
- (i) Coating and cleaning subject to one of the following subsections of this section: (l) through (s) and (hh) through (jj),
 - (ii) Coating and associated surface preparation and cleanup subject to section 22a-174-41 of the Regulations of Connecticut State Agencies,
 - (iii) Coating applied with a hand-held aerosol can,
 - (iv) Application of adhesive, sealant, adhesive primer or sealant primer regulated by section 22a-174-44 of the Regulations of Connecticut State Agencies,
 - (v) Coating applied to test materials, test panels and coupons in research and development, quality control or performance testing,
 - (vi) Use of coatings containing VOC at concentrations less than 1.0 percent by weight, or
 - (vii) Use of cleaning solvents containing VOC at concentrations less than 5.0 percent by weight.
- (B) The requirements of subdivision (5) of this subsection shall not apply to the application of an extreme high gloss coating.
- (C) An owner or operator may use in aggregate in any 12 consecutive months no more than 55 gallons of pleasure craft coatings that exceed the VOC content limits or emission limits of subdivision (4) of this subsection.

(4) On and after January 1, 2013, no owner or operator of a pleasure craft coating operation shall apply any coating, inclusive of any VOC-containing material added to the original coating supplied by the manufacturer, unless the owner or operator controls emissions of VOCs in accordance with subparagraph (A), (B), (C), (D) or (E) of this subdivision. If more than one emission limit or emission rate applies in a particular situation, then the least restrictive limit or rate shall apply. An owner or operator shall:

- (A) Use only coatings that have an as applied VOC content no greater than the applicable level in Table 20(kk)-1.
- (B) Use a combination of low-VOC coatings and add-on air pollution control equipment to achieve a VOC emission rate no greater than the applicable level in Table 20(kk)-2.

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- (C) Install, operate and maintain according to the manufacturer's recommendations air pollution control equipment with an overall control efficiency of at least 90%.
 - (D) Use an alternative means, achieving a level of control equivalent to subparagraph (A), (B) or (C) of this subdivision, requested from and approved by the commissioner in accordance with subsection (cc) of this section.
 - (E) Limit the total potential VOC emissions from all pleasure craft coating operations and related cleaning by permit or order of the commissioner to 1,666 pounds or less in any calendar month.
- (5) Application methods. Except as provided in subdivision (3) of this subsection, an owner or operator shall not apply a VOC-containing coating to a pleasure craft or to a part or component of a pleasure craft unless the coating is applied by one of the methods identified in subparagraphs (A) through (F) of this subdivision using equipment operated in accordance with the specifications of the equipment manufacturer:
- (A) Electrostatic application;
 - (B) HVLP spray application;
 - (C) Airless spray application;
 - (D) Air-assisted airless spray application;
 - (E) Hand application; or
 - (F) Any other coating application method capable of achieving a transfer efficiency equivalent to or better than that provided by HVLP spray application. Any coating operation using an application method pursuant to this subparagraph shall maintain records demonstrating the transfer efficiency achieved.
- (6) Work practices. Each owner or operator shall use the following work practices:
- (A) New and used VOC-containing coating or cleaning solvent, including a coating mixed on the premises, shall be stored in a nonabsorbent, non-leaking container. Such a container shall be kept closed at all times except when the container is being filled, emptied or is otherwise actively in use;
 - (B) Spills and leaks of VOC-containing coating or cleaning solvent shall be minimized. Any leaked or spilled VOC-containing coating or cleaning solvent shall be contained, absorbed and removed immediately;
 - (C) Absorbent applicators, such as cloth and paper, which are moistened with a VOC-containing coating or solvent, shall be stored in a closed, nonabsorbent, non-leaking container for disposal or recycling; and

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(D) VOC-containing coating and cleaning solvent shall be conveyed from one location to another in a closed container or pipe.

(7) Records.

(A) An owner or operator shall maintain records of information sufficient to determine compliance with the applicable requirements of this subsection, including, at a minimum, the information described in subparagraph (B) of this subdivision. All such records shall be:

- (i) Made available to the commissioner to inspect and copy upon request, and
- (ii) Maintained for five years from the date such record is created.

(B) An owner or operator shall maintain records of the following information for each calendar month:

- (i) Name and description of each coating and cleaning solvent,
- (ii) VOC content of each coating and cleaning solvent, as applied, and the associated calculations,
- (iii) VOC content of each coating or cleaning solvent, as supplied,
- (iv) The amount of each coating and cleaning solvent:
 - (I) Purchased, or
 - (II) Actually used,
- (v) A Material Safety Data Sheet, Environmental Data Sheet, Certified Product Data Sheet, or an equivalent data sheet for each coating and cleaning solvent,
- (vi) Documentation of control device efficiency and capture efficiency, if applicable, using an applicable EPA reference method or alternate method as approved by the commissioner, and
- (vii) Date and type of maintenance performed on air pollution control equipment, if applicable.

(C) Any owner or operator of any premises at which pleasure craft coating is conducted who does not meet the applicability thresholds provided in subdivision (2)(A) of this subsection shall maintain material purchase records to verify that this subsection does not apply to such owner or operator.

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- (D) An owner or operator operating pursuant to an exception or exemption in subdivision (3) of this subsection shall maintain records sufficient to verify the applicability of the exception or exemption.

(8) Compliance procedures.

- (A) The VOC content limits of Table 20(kk)-1 apply to the volume of coating as applied, determined using the following equation:

$$\text{VOC Content} = (Ws - Ww - Wes) / (Vm - Vw - Ves)$$

Where:

Ws	=	weight of volatile compounds in grams
Ww	=	weight of water in grams
Wes	=	weight of exempt compounds in grams
Vm	=	volume of coating in liters
Vw	=	volume of water in liters
Ves	=	volume of exempt compounds in liters

- (B) The VOC emission rate limits of Table 20(kk)-2 apply to the mass of VOC emitted per volume of coating solids, as applied.
- (C) To determine the properties of a coating or components thereof in order to perform the calculations required pursuant to subparagraph (A) of this subdivision or to verify calculations based on the manufacturer's formulation data, the VOC and solids content of all coatings shall be determined using 40 CFR 60, Appendix A, Reference Method 24 or an equivalent method. In the case of a dispute, the VOC content determined using Reference Method 24 shall control, unless a person is able to demonstrate to the commissioner's satisfaction that the manufacturer's formulation data are correct.
- (D) Where a VOC content limit or emissions rate is provided in metric units and equivalent English units, the limit or rate in metric units defines the standard. The English units are provided for information only.
- (E) A pleasure craft coating shall be defined and categorized based on the manufacturer's representations as set out on the container or label or in information provided by the manufacturer of such a pleasure craft coating.

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Coating Category	g VOC/liter coating	lbs VOC/gal coating
Extreme high gloss topcoat	600	5.0
High gloss topcoat	420	3.5
Pretreatment wash primer	780	6.5
Finish primer or surfacer	Effective until December 31, 2015: 600 Effective January 1, 2016: 420	Effective until December 31, 2015: 5.0 Effective January 1, 2016: 3.5
High build primer or surfacer	340	2.8
Aluminum substrate antifouling coating	560	4.7
Other substrate antifouling coating	400	3.3
Antifouling sealant or tie coat	420	3.5
All other pleasure craft surface coatings for metal or plastic	420	3.5

Coating Category	g VOC/liter solids	lbs VOC/gal solids
Extreme high gloss topcoat	1100	9.2
High gloss topcoat	800	6.7
Pretreatment wash primer	6670	55.6
Finish primer or surfacer	Effective until December 31, 2015: 1870 Effective January 1, 2016: 800	Effective until December 31, 2015: 15.59 Effective January 1, 2016: 6.7
High build primer or surfacer	550	4.6
Aluminum substrate antifouling coating	1530	12.8
Other substrate antifouling coating	764	6.4
Antifouling sealer or tie coat	800	6.7
All other pleasure craft surface coatings for metal or plastic	800	6.7

Statement of purpose: The main purpose of this proposal is to enhance existing and add new requirements to control volatile organic compound (VOC) emissions from two types of surface coating operations. VOC emissions are a precursor to ground-level ozone, a harmful air pollutant. The U.S. Environmental Protection Agency (EPA) is reconsidering the level of the current national ambient air quality standards (NAAQS) for ozone and has initiated the statutorily required review to be completed in 2013. All of Connecticut is expected to be in nonattainment of the reconsidered or revised ozone NAAQS. The proposed limitations on VOC emissions will assist Connecticut to attain and maintain the federal ozone NAAQS.

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The Department of Energy and Environmental Protection (DEEP) currently regulates VOC emissions from metal parts coating under section 22a-174-20 of the Regulations of Connecticut State Agencies (RCSA). In response to EPA guidance, DEEP is proposing to add more stringent VOC control requirements for metal parts and to broaden the applicability to include coating of plastic parts. (Section 1)

Also in accord with EPA guidance, DEEP is proposing new requirements for addition to RCSA section 22a-174-20 to limit VOC emissions from pleasure craft coating. Owners of marinas and boat yards that coat pleasure craft will be required to meet the VOC content limits for coatings and keep records of coatings and solvents purchased. (Section 5)

The requirements for both miscellaneous parts coating and pleasure craft coating include VOC content limits for coatings applied; work practices that limit evaporation and waste of coatings and solvents; coating application methods; and record keeping requirements.

Elements of the proposal aside from the parts and pleasure craft coating are minor revisions to address the interaction of the revised and new requirements with other subsections of RCSA section 22a-174-20. Such revisions are as follows:

- Removing redundant record keeping requirements for owners and operators of miscellaneous metal and plastic parts coating facilities (Section 2);
- Removing an artificial distinction between the use of permits and orders as the enforceable mechanisms for alternative emissions control scenarios for sources of volatile organic compound emissions (Section 3); and
- Making a minor clarification to the industrial solvent cleaning requirements of subsection (ii) of RCSA section 22a-174-20. (Section 4)

Attachment 3

Final Text of the Proposal, Based on Recommendations in the Hearing Officer's Report

Section 1. Subsection (s) of section 22a-174-20 of the Regulations of Connecticut State Agencies is amended to read as follows:

(s) **Miscellaneous metal and plastic parts [and products.] coatings**

[(1) For the purpose of this subsection:

"Air dried coating" means a coating that is dried by the use of air or forced warm air at temperatures up to below 90 degrees C (194 degrees F).

"Clear coat" means a base or top coating which either lacks color and opacity or which is transparent and uses the surface to which it is applied as a reflectant base or undertone color.

"Coating application system" means all operations and equipment that apply, convey and dry a surface coating, including, but not limited to, spray booths, flow coaters, flashoff areas, air dryers and ovens.

"Exposure to extreme environmental conditions" means exposure to: the weather all of the time; temperatures consistently above 95 degrees C; detergents; abrasive and scouring agents; solvents; corrosive atmospheres; or similar environmental conditions as determined by the commissioner and the Administrator.

"Extreme performance coatings" means coatings designed for exposure to extreme environmental conditions.

"Heat sensitive material" means materials that cannot consistently be exposed to temperature greater than 95 degrees C (203 degrees F) for more than 30 seconds.

"High performance architectural aluminum coating" means a coating that is applied to architectural aluminum panels, extrusions or subsections to meet the specifications of publication number AAMA 605.2-1992 of the Architectural Aluminum Manufacturer's Association.

"Prime coat" means the first of two or more films of coating applied to a metal surface.

"Single coat" means one film of coating applied to a metal surface.

"Topcoat" means the final film or series of films of coating applied in a two-coat (or more) operation.

"Transfer efficiency" means the portion of coating solids that adheres to the metal surface during the application process, expressed as a percentage of the total volume of coating solids delivered by the applicator.

(2) Applicability. For the purpose of this subsection:

(A) Miscellaneous metal parts and products includes the following industrial categories:

- (i) Large farm machinery such as harvesting, fertilizing and planting machines, tractors, combines, etc.,
 - (ii) Small farm machinery such as lawn and garden tractors, lawn mowers, rototiller, etc.,
 - (iii) Small appliances such as fans, mixers, blenders, crock pots, dehumidifiers, vacuum cleaners, etc.,
 - (iv) Commercial machinery such as office equipment, computers and auxiliary equipment, typewriters, calculators, vending machines, etc.,
 - (v) Industrial machinery such as pumps, compressors, conveyor components, fans, blowers, transformers, etc.,
 - (vi) Fabricated metal products such as metal covered doors, frames, etc., and
 - (vii) Any other industrial category which coats metal parts or products under the Standard Industrial Classification Code of Major Group 33 (primary metal industries), Major Group 34 (fabricated metal products), Major Group 35 (nonelectric machinery), Major Group 36 (electrical machinery), Major Group 37 (transportation equipment), Major Group 38 (miscellaneous instruments), Major Group 39 (miscellaneous manufacturing industries), Major Group 40 (Railroad Transportation) and Major Group 41 (Transit Passenger Transportation); and
- (B) Miscellaneous metal parts and products excludes the following items:
- (i) automobiles and light duty trucks,
 - (ii) metal cans,
 - (iii) flat metal sheets and strips in the form of rolls or coils,
 - (iv) plastic and glass objects,
 - (v) magnet wire for use in electrical machinery,
 - (vi) metal furniture,
 - (vii) the exterior surface of assembled aircraft,
 - (viii) automobile refinishing,
 - (ix) customized top coating of automobiles and trucks, if production is less than 5 vehicles per day, and
 - (x) the exterior surface of assembled marine vessels.

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- (3) Emission standards. No owner or operator of a facility engaged in the surface coating of miscellaneous metal parts and products may operate a coating application system subject to this subsection that emits volatile organic compounds from any coating in excess of:
- (A) 0.52 kg/l (4.3 lb/gal) of coating, excluding water and exempt volatile organic compounds listed in 40 CFR 51.100(s) as amended from time to time, delivered to a coating applicator that applies a clear coat;
 - (B) 0.42 kg/l (3.5 lb/gal) of coating, excluding water and exempt volatile organic compounds listed in 40 CFR 51.100(s) as amended from time to time, delivered to a coating applicator in a coating application system that is air dried or forced warm air dried at temperatures up to 90 degrees C (194 degrees F);
 - (C) 0.42 kg/l (3.5 lb/gal) of coating, excluding water and exempt volatile organic compounds listed in 40 CFR 51.100(s) as amended from time to time, delivered to a coating applicator that applies extreme performance coatings;
 - (D) 0.36 kg/l (3.0 lb/gal) of coating, excluding water and exempt volatile organic compounds listed in 40 CFR 51.100(s) as amended from time to time, delivered to a coating applicator for all other coatings, adhesives, fillers or sealants and coating application systems; and
 - (E) 0.75 kg/l (6.3 lb/gal) of coating, excluding water and exempt volatile organic compounds listed in 40 CFR 51.100(s) as amended from time to time, delivered to a coating applicator which applies high performance architectural aluminum coatings, provided that:
 - (i) such applicator is located at a premises which emits three thousand three hundred thirty three (3,333) pounds of volatile organic compounds per month or less from such applicator, and
 - (ii) such applicator was an existing source in Connecticut on or before November 1, 1994.
- (4) This subsection applies to all application areas, flashoff areas, air and forced air dryers and ovens used in the surface coating operations pertaining to miscellaneous metal parts and products listed in subsection (s)(2) of this section. This regulation also applies to prime coat, top coat and single coat operations.
- (5) If more than one emission limitation in subsection (s)(3) of this section applies to a specific coating, then the least stringent emission limitation shall be applied.
- (6) All volatile organic compound emissions from solvent washings shall be considered in the emission limitations in subsection (s)(3) of this section unless the solvent is directed into containers that prevent evaporation into the atmosphere.

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- (7) The provisions of this subsection apply to any premises that has actual emissions of volatile organic compounds of fifteen (15) pounds per day or more in any one day from all miscellaneous metal parts and products surface coating operations on such premises unless:
- (A) The total potential emissions from all surface coating operations are limited by permit or order of the commissioner to 1,666 pounds or less in any calendar month;
 - (B) The owner or operator is and has at all times been in compliance with such limitation since the issuance of the permit or order;
 - (C) The total actual emissions from all such surface coating operations have not exceeded 1,666 pounds in any calendar month since January 1987; and
 - (D) Notwithstanding subsections (A) through (C) of this subdivision, any surface coating operation on such premises that emitted 40 pounds or more in any day and that was subject to the requirements of this subsection prior to November 1, 1989, shall remain subject to the provisions of this subsection.
- (8) After November 1, 1989 any premises that is or becomes subject to the provisions of this subsection shall remain subject to the provisions of this subsection unless the owner or operator meets the requirements of subparagraphs (A), (B) and (C) of subdivision (7) of this subsection.
- (9) The owner or operator of any surface coating operation that was not subject to the requirements of this subsection prior to November 1, 1989, shall have until October 1, 1990, to comply with the requirements of this subsection for such system.
- (10) Notwithstanding the requirements of this subsection, an owner or operator may use, in the aggregate, up to fifty-five (55) gallons of coatings that exceed the emission limitations set forth in subdivision (3)(A) through (3)(E), inclusive, of this subsection at such premises for any twelve (12) consecutive months, provided such owner or operator maintains records of such coatings in accordance with subsection (aa) of this section.]
- (1) Definitions. For the purposes of this section, the following definitions apply:
- (A) “Ablative coating” means a coating that chars when exposed to open flame or extreme temperatures, as would occur during the failure of an engine casing or during aerodynamic heating. The ablative char surface serves as an insulative barrier, protecting adjacent components from the heat or open flame;
 - (B) “Adhesion promoter” means a very thin coating applied to a substrate to promote wetting and form a chemical bond with the subsequently applied material;
 - (C) “Adhesive bonding primer” means a primer applied in a thin film to aerospace components to inhibit corrosion and increase adhesive bond strength;
 - (D) “Aerospace high temperature coating” means a coating designed to withstand temperatures of more than 350°F;

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- (E) “Aerospace vehicle or component” means any fabricated part, processed part, assembly of parts, or completed unit, with the exception of electronic components, of any aircraft including but not limited to airplanes, helicopters, missiles, rockets and space vehicles;
- (F) “Air dried” means cured at a temperature below 90°C (194 °F);
- (G) “Airless spray application” means a coating spray application system using high fluid pressure, without compressed air, to atomize the coating;
- (H) “Air-assisted airless spray application” means a coating spray application system using fluid pressure to atomize the coating and lower pressure air to adjust the shape of the spray pattern;
- (I) “Antichafe coating” means a coating applied to areas of moving aerospace components that may rub during normal operations or installation;
- (J) “Antique aerospace vehicle” means an aircraft or component thereof that was built at least 30 years ago. An “antique aerospace vehicle” would not routinely be in commercial or military service in the capacity for which it was designed;
- (K) “Appurtenance” means any accessory to a stationary structure, including but not limited to: bathroom and kitchen fixtures; cabinets; concrete forms; doors; elevators; fences; hand railings; heating equipment, air conditioning equipment, and other fixed mechanical equipment or stationary tools; lampposts; partitions; pipes and piping systems; rain gutters and downspouts; stairways; fixed ladders; catwalks; fire escapes and window screens;
- (L) “As applied” means the composition of coating at the time it is applied to a surface, including any solvent, catalyst or other substance added to the coating but excluding water and exempt compounds;
- (M) “Automotive-transportation part” means an interior or exterior component of a motor vehicle or mobile source;
- (N) “Baked” means cured at a temperature at or above 90°C (194°F);
- (O) “Bearing coating” means a coating applied to an antifriction bearing, a bearing housing or the area adjacent to such a bearing to facilitate bearing function or to protect base material from excessive wear. A material shall not be classified as a “bearing coating” if it can also be classified as a dry lubricative material or a solid film lubricant;
- (P) “Bonding maskant ” means a temporary coating used to protect selected areas of aerospace parts from strong acid or alkaline solutions during processing for bonding;

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- (Q) “Business machine” means a device that uses electronic or mechanical methods to process information, perform calculations, print or copy information or convert sound into electrical impulses for transmission, such as, typewriters, electronic computing devices, calculating and accounting machines, telephone and telegraph equipment and photocopy machines;
- (R) “Camouflage coating” means a coating used, principally by the military, to conceal equipment from detection;
- (S) “Capture efficiency” means the ratio of VOC emissions delivered to the control device to the total VOC emissions resulting from the miscellaneous metal and plastic parts coating operation, expressed as a percentage;
- (T) “Caulking and smoothing compound” means a semi-solid material that is applied by hand and used to smooth exterior vehicle surfaces or fill cavities such as bolt hole accesses. A material shall not be classified as a “caulking and smoothing compound” if it can also be classified as a sealant;
- (U) “Chemical agent-resistant coating” means an exterior topcoat designed to withstand exposure to chemical warfare agents or the decontaminants used on these agents;
- (V) “Chemical milling maskant” means a coating that is applied directly to aluminum components to protect surface areas when chemically milling the component with a Type I or II etchant. “Chemical milling maskants” do not include bonding maskants, critical use and line sealer maskants, seal coat maskants, maskants that are defined as specialty coatings or maskants used with either a Type I or II etchant plus a bonding maskant, critical use and line sealer maskant or seal coat maskant;
- (W) “Cleaning solvent” means any VOC-containing liquid, including a liquid impregnated wipe or towelette, used in cleaning;
- (X) “Clear coating” means a colorless coating that contains binders but no pigment and is formulated to form a transparent film;
- (Y) “Coating” means a material that is deposited in a thin, persistent, uniform layer across the surface of a substrate for aesthetic, protective or functional purposes. Coatings include, but are not limited to, paints, primers, inks and maskants, but exclude protective oils, acids and bases;
- (Z) “Coating unit” means a series of one or more coating applicators and any associated drying area or oven wherein a coating is applied, dried or cured. A “coating unit” ends at the point where the coating is dried or cured, or prior to any subsequent application of a different coating;
- (AA) “Commercial exterior aerodynamic structure primer” means a primer used on aerodynamic components and structures that protrude from the fuselage, such as

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wings and attached components, control surfaces, horizontal stabilizers, vertical fins, wing-to-body fairings, antennae and landing gear and doors for the purpose of extended corrosion protection and enhanced adhesion;

- (BB) “Commercial interior adhesive” means a material used in the bonding of passenger cabin interior components;
- (CC) “Compatible substrate primer” means one of the following coatings:
- (i) A primer that is compatible with the filled elastomeric coating and is epoxy based,
 - (ii) A primer that inhibits corrosion and is applied to bare metal surfaces or is applied prior to adhesive application, or
 - (iii) A primer that is applied to surfaces that can be expected to come into contact with fuel, with the exception of coatings applied to fuel tanks;
- (DD) “Control device efficiency” means the ratio of VOC emissions recovered or destroyed by the control device to the total VOC emissions that are introduced into the device, expressed as a percentage;
- (EE) “Corrosion prevention compound” means a coating system that provides corrosion protection by displacing water and penetrating substrates, forming a protective barrier between the metal surface and moisture. A coating containing oils or waxes is excluded from this category;
- (FF) “Critical use and line sealer maskant” means a temporary coating, not covered under other maskant categories, used to protect selected areas of aerospace parts from strong acid or alkaline solutions such as those used in anodizing, plating, chemical milling and processing of magnesium, titanium or high A8 strength steel, high-precision aluminum chemical milling of deep cuts and aluminum chemical milling of complex shapes. Materials used for repairs or to bridge gaps left by scribing operations are also included in this category;
- (GG) “Cryogenic flexible primer” means a primer designed to provide corrosion resistance, flexibility and adhesion of subsequent coating systems when exposed to loads up to and surpassing the yield point of the substrate at cryogenic temperatures (-275°F and below);
- (HH) “Cryoprotective coating” means a coating that insulates cryogenic or subcooled surfaces to limit propellant boil-off, maintain structural integrity of metallic structures during ascent or re-entry and prevent ice formation;
- (II) “Cyanoacrylate adhesive” means a fast-setting, single component adhesive that cures at room temperature and contains methyl, ethyl, methoxymethyl or other functional groupings of cyanoacrylate;
- (JJ) “Dip coating” means a method of applying a coating to a surface by submersion into and removal from a coating bath;

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- (KK) “Drum” means any cylindrical metal container larger than 12 gallons capacity and less than or equal to 110 gallons capacity;
- (LL) “Dry lubricative material” means a coating consisting of lauric acid, cetyl alcohol, waxes or other non-cross linked or resin-bound materials that act as a dry lubricant;
- (MM) “Electric dissipating coating” means a coating that rapidly dissipates a high-voltage electric charge;
- (NN) “Electric-insulating and thermal-conducting coating” means a coating that displays an electrical insulation of at least 1000 volts DC per mil on a flat test plate and an average thermal conductivity of at least 0.27 BTU per hour-foot-degree-Fahrenheit;
- (OO) “Electric-insulating varnish” means a coating applied to electric motors, components of electric motors or power transformers to provide electrical, mechanical and environmental protection or resistance;
- (PP) “Electric or radiation-effect coating” means a coating or coating system engineered to interact, through absorption or reflection, with specific regions of the electromagnetic energy spectrum, such as the ultraviolet, visible, infrared or microwave regions. Uses include, but are not limited to, lightning strike protection, electromagnetic pulse (EMP) protection and radar avoidance.
- (QQ) “Electrostatic application” means a method of applying coating particles or coating droplets to a grounded surface by electrically charging such particles or droplets;
- (RR) “Electrostatic discharge and electromagnetic interference coating” or “EMI coating” means a coating applied to space vehicles, missiles, aircraft radomes and helicopter blades to disperse static energy or reduce electromagnetic interference;
- (SS) “Electrostatic preparation coating” means a coating applied to a plastic part solely to provide conductivity for the subsequent application of a primer, a topcoat or other coating through the use of electrostatic application methods;
- (TT) “Elevated-temperature Skydrol-resistant commercial primer” means a primer applied primarily to commercial aircraft or commercial aircraft adapted for military use that must withstand immersion in phosphate-ester hydraulic fluid (Skydrol 500b or equivalent) at the elevated temperature of 150°F for 1,000 hours;
- (UU) “EMI/RFI shield coating” means a coating that functions to attenuate electromagnetic interference, radio frequency interference signals or static discharge;

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- (VV) “Epoxy polyamide topcoat” means a coating containing epoxy and a polyamide component used to provide a hard, durable, chemical-resistant finish;
- (WW) “Etching filler” means a coating that contains less than 23% solids by weight and at least 0.5% acid by weight and is used as a substitute for the application of a pretreatment coating followed by a primer;
- (XX) “Exempt compound” means a carbon compound excluded from the definition of “volatile organic compound” as defined in section 22a-174-1 of the Regulations of Connecticut State Agencies;
- (YY) “Extreme high-gloss coating” means a coating that, when tested by American Society for Testing Material Test Method D523-08, Standard Test Method for Specular Gloss, shows a reflectance of 75 or more on a 60 degree meter;
- (ZZ) “Extreme performance coating” means a coating used on a metal surface where the coated surface is, in its intended use, subject to one of the following conditions:
- (i) Chronic exposure to corrosive, caustic or acidic agents, chemicals, chemical fumes, chemical mixtures or solution,
 - (ii) Repeated exposure to temperatures in excess of 250°F, or
 - (iii) Repeated heavy abrasion, including mechanical wear and repeated scrubbing with industrial grade solvents, cleaners or scouring agents;
- (AAA) “Fire-resistant interior coating” means, for civilian aircraft, fire-resistant interior coatings used on passenger cabin interior parts that are subject to Federal Aviation Administration fireworthiness requirements. For military aircraft, fire-resistant interior coatings are used on parts that are subject to the flammability requirements of MIL-STD-1630A and MIL-A-87721. For space applications, “fire-resistant interior coating” means a coating subject to the flammability requirements of SE-R-0006 and SSP 30233;
- (BBB) “Flexible primer” means a primer with elastomeric qualities that provides a compatible, flexible substrate over bonded sheet rubber and rubber-type coatings;
- (CCC) “Flight test coating” means a coating applied to aircraft other than missiles or single-use aircraft prior to flight testing to protect the aircraft from corrosion and to provide required marking during flight test evaluation;
- (DDD) “Flow coating” means a non-atomized technique of applying coating to a substrate using a fluid nozzle in a fan pattern with no air supplied to the nozzle;
- (EEE) “Fog coat” means a coating that is applied to a plastic part at a thickness of no more than 0.5 mils of coating solids for the purpose of color matching without masking a molded-in texture;

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- (FFF) “Fuel tank adhesive” means an adhesive that must be compatible with fuel tank coatings and is used to bond components exposed to fuel;
- (GGG) “Fuel tank coating” means a coating applied to fuel tank components for the purpose of corrosion or bacterial growth inhibition and to assure sealant adhesion in extreme environmental conditions;
- (HHH) “General aviation rework facility” means any aerospace facility with the majority of its revenues resulting from the reconstruction, repair, maintenance, repainting, conversion or alteration of general aviation aerospace vehicles or components;
- (III) “Gloss reducer” means a coating that is applied to a plastic part at a thickness of no more than 0.5 mils of coating solids solely to reduce the shine of the part;
- (JJJ) “Heat-resistant coating” means a coating able to withstand a temperature of at least 400° F during normal use;
- (KKK) “High-performance architectural coating” means a coating used to protect architectural subsections and which meets the requirements of the Architectural Aluminum Manufacturer Association's 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);
- (LLL) “High temperature coating” means a coating certified to withstand a temperature of 1000°F for 24 hours;
- (MMM) “HVLP spray application” means to apply a coating using a coating application system that uses lower air pressure and higher volume than conventional air atomized spray systems, where the manufacturer has represented that the system is HVLP by affixing a permanent label or through representations on the packaging or other product literature;
- (NNN) “Insulation covering” means material that is applied to foam insulation to protect the insulation from mechanical or environmental damage;
- (OOO) “Intermediate release coating” means a thin coating applied beneath topcoats to assist in removing the topcoat in depainting operations and to allow the use of less hazardous depainting methods;
- (PPP) “Lacquer” means a clear or pigmented coating formulated with a nitrocellulose or synthetic resin to dry by evaporation without a chemical reaction. “Lacquers” are resolvable in their original solvent;

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- (OOO) “Large commercial aircraft” means an aircraft of more than 110,000 pounds, maximum certified take-off weight, manufactured for non-military use;
- (RRR) “Mask coating” means thin film coating applied through a template to coat a small portion of a substrate;
- (SSS) “Medical device” means an instrument, apparatus, implement, machine, gadget, appliance, implant, *in vitro* reagent or other similar or related article, including any component, part or accessory, which meets one of the following conditions:
- (i) Recognized in the official National Formulary or the United States Pharmacopeia or any supplement thereto,
 - (ii) Intended for use in the diagnosis of disease or other conditions or in the cure, mitigation, treatment or prevention of disease in persons or animals, or
 - (iii) Intended to affect the structure or function of the body of a person or animal and which does not achieve its primary intended purposes through chemical action within or on such body and which is not dependent upon being metabolized for the achievement of its primary intended purposes;
- (TTT) “Metalized epoxy coating” means a coating that contains relatively large quantities of metallic pigmentation for appearance or added protection;
- (UUU) “Metallic coating” means a coating that contains more than five grams of metal particles per liter of coating, as applied;
- (VVV) “Miscellaneous metal and plastic parts” means metal and plastic components of products as well as the products themselves constructed either entirely or partially from metal or plastic including, but not limited to: aerospace vehicles and components, fabricated metal products, molded plastic parts, 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, extruded aluminum structural components, railroad cars, lawn and garden equipment, business machines, laboratory and medical equipment, electronic equipment, steel drums, metal pipes and small appliances;
- (WWW) “Mold-seal coating” means the initial coating applied to a new mold or a repaired mold to provide a smooth surface that, when coated with a mold release coating, prevents products from sticking to the mold;
- (XXX) “Mold release” means a coating applied to a mold surface to prevent the molded piece from sticking to the mold as it is removed;

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- (YYY) “Motor vehicle” means any self-propelled vehicle, including, but not limited to, cars, trucks, buses, golf carts, vans, motorcycles, tanks and armored personnel carriers;
- (ZZZ) “Motor vehicle bedliner coating” means a multi-component coating applied to a cargo bed after the application of a topcoat to provide additional durability and chip resistance;
- (AAAA) “Motor vehicle cavity wax” means a coating applied into the cavities of the vehicle primarily for the purpose of enhancing corrosion protection;
- (BBBB) “Motor vehicle deadener” means a coating applied to selected vehicle surfaces primarily for the purpose of reducing the sound of road noise in the passenger compartment;
- (CCCC) “Motor vehicle gasket/sealing material” means a fluid applied to coat a gasket or replace and perform the same function as a gasket. Automobile and light-duty truck gasket/gasket sealing material includes room temperature vulcanization (RTV) seal material;
- (DDDD) “Motor vehicle lubricating wax/compound” means a protective lubricating material applied to vehicle hubs and hinges;
- (EEEE) “Motor vehicle sealer” means a high viscosity material generally, but not always, applied in the paint shop after the body has received an electrodeposition primer coating and before the application of subsequent coatings (e.g., primer-surfacer). The primary purpose of automobile and light-duty truck sealer is to fill body joints completely so that there is no intrusion of water, gases or corrosive materials into the passenger area of the body compartment. Such materials are also referred to as sealant, sealant primer, or caulk;
- (FFFF) “Motor vehicle trunk interior coating” means a coating applied to the trunk interior to provide chip protection;
- (GGGG) “Motor vehicle underbody coating” means a coating applied to the undercarriage or firewall to prevent corrosion or provide chip protection;
- (HHHH) “Multi-colored coating” means a coating packaged in a single container and applied in a single coat which exhibits more than one color when applied;
- (IIII) “Multi-component coating” means a coating requiring the addition of a separate reactive resin, such as a catalyst or hardener, before application to form an acceptable dry film;
- (JJJJ) “Nonstructural adhesive” means an adhesive that bonds nonload bearing aerospace components in noncritical applications and is not covered in any other specialty adhesive categories;

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- (KKKK) “One-component coating” means a coating that is ready for application as packaged for sale, except for the addition of a thinner to reduce the viscosity;
- (LLLL) “Optical antireflection coating” means a coating with a low reflectance in the infrared and visible wavelength ranges that is used for antireflection on or near optical and laser hardware;
- (MMMM) “Optical coating” means a coating with a low reflectance in the infrared and visible wavelength range that is used on or near optical or laser lenses or hardware;
- (NNNN) “Overall control efficiency” means the product of the capture efficiency and the control device efficiency;
- (OOOO) “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 element;
- (PPPP) “Part marking coating” means coatings or inks used to make identifying markings on materials, components or assemblies. These markings may be either permanent or temporary;
- (QQQQ) “Plastic part” means any piece or combination of pieces of which at least one has been formed from one or more resins. Such pieces may be solid, porous, flexible or rigid. “Plastic parts” do not include parts made of fiberglass or composite materials;
- (RRRR) “Prefabricated architectural component coating” means a coating applied to prefabricated metal parts and products that are to be used as architectural appurtenances or structures and that are detached from the structure when coated in a shop environment;
- (SSSS) “Pretreatment coating” means a coating, containing at least 0.5 percent acid by weight, applied directly to a metal or composite surface to provide surface etching, corrosion resistance, adhesion and ease of stripping;
- (TTTT) “Primer” means a coating applied to prevent corrosion, provide protection or provide a surface for adhesion of subsequent coatings;
- (UUUU) “Radome” means the nonmetallic protective housing for electromagnetic transmitters and receivers such as radar or electronic countermeasures;
- (VVVV) “Rain erosion-resistant coating” means a coating or coating system used to protect the leading edges of parts, such as flaps, stabilizers, radomes or engine inlet nacelles against erosion caused by rain impact during flight;
- (WWWW) “Related cleaning” means the removal of uncured coatings, coating residue and contaminants from:

- (i) Miscellaneous metal and plastic parts prior to the application of coatings.
 - (ii) Miscellaneous metal and plastic parts between coating applications, or
 - (iii) Transfer lines, storage tanks, spray booths and coating application equipment;
- (XXXX) “Repair coating” means a coating used to recoat portions of a product that has sustained mechanical damage to the coating following normal painting operations;
- (YYYY) “Resin” means any of numerous physically similar polymerized synthetics or chemically modified natural materials including thermoplastic materials such as polyvinyl, polystyrene and polyethylene and thermosetting materials such as polyesters, epoxies and silicones;
- (ZZZZ) “Resist coating” means a coating that is applied to a plastic part before metallic plating to prevent deposits of metal on portions of the plastic part;
- (AAAAA) “Rocket motor nozzle coating” means a catalyzed epoxy coating system used in elevated temperature applications on rocket motor nozzles;
- (BBBBB) “Roll coating” means a coating method using a machine that applies coating to a substrate by continuously transferring coating through a set of oppositely rotating rollers;
- (CCCCC) “Rubber-based adhesive” means a quick-setting contact cement that provides a strong, yet flexible bond between two substrates that may be of dissimilar materials;
- (DDDDD) “Safety-indicating coating” means a coating that changes in a physical characteristic, such as color, to indicate unsafe conditions;
- (EEEEE) “Scale inhibitor” means a coating that is applied to the surface of a part prior to thermal processing to inhibit scale formation;
- (FFFFF) “Screen print ink” means an ink used in screen printing processes during fabrication of decorative laminates and decals;
- (GGGGG) “Sealant” means a material used to prevent the intrusion of water, fuel, air or other liquids or solids from certain areas of aerospace vehicles or components;
- (HHHHH) “Seal coat maskant” means an overcoat applied over a maskant to improve abrasion and chemical resistance during production operations;
- (IIIII) “Self-priming topcoat” means a topcoat that is applied directly to an uncoated aerospace vehicle or component for corrosion prevention.

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environmental protection or functional fluid resistance. More than one layer of identical coating formulation may be applied to the vehicle or component:

- (JJJJ) “Shock-free coating” means a coating applied to electrical components to protect the user from electric shock. The coating provides for low capacitance and high resistance and resists breaking down under high voltage;
- (KKKKK) “Silicone insulation material” means an insulating material applied to exterior metal surfaces for protection from high temperatures caused by atmospheric friction or engine exhaust. “Silicone insulation materials” differ from ablative coatings in that “silicone insulation materials” are not sacrificial;
- (LLLLL) “Silicone-release coating” means any coating that contains silicone resin and is intended to prevent food from sticking to metal surfaces such as baking pans;
- (MMMMM) “Solar-absorbent coating” means a coating that has as its primary purpose the absorption of solar radiation;
- (NNNNN) “Solid-film lubricant” means a very thin coating consisting of a binder system containing as its chief pigment material one or more of molybdenum disulfide, graphite, polytetrafluoroethylene or other solids that act as a dry lubricant between faying surfaces;
- (OOOOO) “Space vehicle” means a man-made device, either manned or unmanned, designed for operation beyond earth's atmosphere. This definition includes integral equipment such as models, mock-ups, prototypes, molds, jigs, tooling, hardware jackets and test coupons. “Space vehicle” includes auxiliary equipment associated with test, transport and storage, which through contamination can compromise the space vehicle performance;
- (PPPPP) “Specialty coating” means a coating that, even though it meets the definition of a primer, topcoat or self-priming topcoat, has additional performance criteria beyond those of primers, topcoats and self-priming topcoats for specific applications. These performance criteria may include, but are not limited to, temperature or fire resistance, substrate compatibility, antireflection, temporary protection or marking, sealing, adhesion or enhanced corrosion protection;
- (QQQQQ) “Specialized function coating” means a coating that fulfills extremely specific engineering requirements. A “specialized function coating” is limited in application, characterized by low volume usage and is not able to be categorized as any other coating in Table 20(s)-6a;

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- (RRRRR) “Stencil coating” means an ink or a coating that is rolled or brushed onto a template or stamp to add identifying letters or numbers to metal parts or products;
- (SSSSS) “Structural autoclavable adhesive” means an adhesive used to bond load-carrying aerospace components that is cured by heat and pressure in an autoclave;
- (TTTTT) “Structural nonautoclavable adhesive” means an adhesive cured under ambient conditions that is used to bond load-carrying aerospace components or other critical functions, such as nonstructural bonding in the proximity of engines;
- (UUUUU) “Temporary protective coating” means a coating applied to provide scratch or corrosion protection during manufacturing, storage or transportation. “Temporary protective coatings” do not include coatings that protect against strong acid or alkaline solutions;
- (VVVVV) “Texture coat” means a coating that is applied to a plastic part which, in its finished form, consists of discrete raised spots of the coating;
- (WWWWW) “Textured finish” means a rough surface produced by spraying and splattering large drops of coating onto a previously applied coating;
- (XXXXX) “Thermal control coating” means a coating formulated with specific thermal conductive or radiative properties to permit temperature control of the substrate;
- (YYYYY) “Touch-up coating” means a coating used to cover minor coating imperfections appearing after the main coating operation;
- (ZZZZZ) “Transfer efficiency” means the portion of coating solids that adheres to the metal or plastic surface during the application process, expressed as a percentage of the total volume of coating solids delivered by the applicator;
- (AAAAA) “Translucent coating” means a coating which contains binders and pigment and is formulated to form a colored, but not opaque, film;
- (BBBBB) “Vacuum-metalizing coating” means the undercoat applied to a substrate on which the metal is deposited prior to a vacuum-metalizing process or the overcoat applied directly to the metal film after a vacuum-metalizing process;
- (CCCCC) “Vacuum metalizing process” means the process of evaporating metals inside a vacuum chamber and depositing them on a substrate to achieve a uniform metalized layer;

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(DDDDDD) “Wet fastener installation coating” means a primer or sealant applied by dipping, brushing or daubing to fasteners that are installed before the coating is cured; and

(EEEEEE) “Wing coating” means a corrosion-resistant topcoat that withstands the flexing of aircraft wings and rotary wings.

(2) Applicability.

(A) Except as provided in subdivision (7) of this subsection, the provisions of this subsection apply to the owner or operator of any miscellaneous metal and plastic parts coating unit:

- (i) That is subject to this subsection prior to January 1, 2013, or
- (ii) For which the owner or operator purchases for use at the premises 855 gallons or more of coatings and cleaning solvents in aggregate per rolling 12-month period.

(B) An owner or operator subject to this subsection shall:

- (i) For an existing miscellaneous metal and plastic parts coating unit, comply with the requirements of this subsection no later than January 1, 2013, or
- (ii) For a miscellaneous metal and plastic parts coating unit that commences operation after January 1, 2013, comply with the requirements of this subsection upon commencing operation.

(C) Any owner or operator subject to this subsection shall remain subject to this subsection.

(3) Except as provided in subdivision (7) of this subsection, on and after January 1, 2013, no owner or operator shall apply any coating, inclusive of any VOC-containing material added to the original coating supplied by the manufacturer, unless the owner or operator controls emissions of VOCs in accordance with subparagraph (A), (B), (C) or (D) of this subdivision. If more than one emission limit or emission rate applies in a particular situation, then the least restrictive limit or emission rate shall apply. An owner or operator shall control the emission of VOCs as follows:

- (A) Use only coatings that have an as applied VOC content no greater than the applicable level in Table 20(s)-1, 20(s)-2, 20(s)-3, 20(s)-4, 20(s)-5, 20(s)-6a or 20(s)-6b;
- (B) For a coating unit, use a combination of low-VOC coatings and add-on air pollution control equipment to achieve a VOC emission rate no greater than the applicable level in Table 20(s)-7, 20(s)-8, 20(s)-9, or 20(s)-10;

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- (C) Install, operate and maintain according to the manufacturer's recommendations air pollution control equipment with an overall control efficiency of at least 90%; and
- (D) An alternative means, achieving a level of control equivalent to subparagraph (A), (B) or (C) of this subdivision, requested from and approved by the commissioner in accordance with subsection (cc) of this section.

(4) Application methods. Except as provided in subdivision (7) of this subsection, an owner or operator shall not apply a VOC-containing coating to a miscellaneous metal and plastic part unless the coating is applied by one of the methods identified in subparagraphs (A) through (I) of this subdivision using equipment operated in accordance with the specifications of the equipment manufacturer:

- (A) Electrostatic application;
- (B) Flow coating;
- (C) Dip coating;
- (D) Roll coating;
- (E) HVLP spray application;
- (F) Airless spray application;
- (G) Air-assisted airless spray application;
- (H) Hand application; or
- (I) Any other coating application method capable of achieving a transfer efficiency equivalent to or better than that provided by HVLP spray application. Any owner or operator using an application method pursuant to this subparagraph shall maintain records demonstrating the transfer efficiency achieved.

(5) Work practices. Each owner or operator shall use the following work practices:

- (A) New and used VOC-containing coating, diluent or cleaning solvent, including a coating mixed on the premises, shall be stored in a nonabsorbent, non-leaking container. Such a container shall be kept closed at all times except when the container is being filled, emptied or is otherwise actively in use;
- (B) Spills and leaks of VOC-containing coating, diluent or cleaning solvent shall be minimized. Any leaked or spilled VOC-containing coating, diluent or cleaning solvent shall be absorbed and removed immediately;

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- (C) Absorbent applicators, such as cloth and paper, which are moistened with a VOC-containing coating or solvent, shall be stored in a closed, nonabsorbent, non-leaking container for disposal or recycling; and
 - (D) VOC-containing coating, diluent and cleaning solvent shall be conveyed from one location to another in a closed container or pipe.
- (6) Notwithstanding the requirements of this subsection, an owner or operator complying with this subsection by operating under a valid permit or order issued pursuant to subsection (cc)(2) or (cc)(3) of this section shall continue to operate according to the terms of such permit or order.
- (7) Exemptions and exceptions.
- (A) Except as provided in subdivision (8) of this subsection, the requirements of this subsection shall not apply to any of the following activities, and the VOC emissions resulting from the following activities shall not be included in determinations pursuant to subdivision (2) or (7)(G) of this subsection:
 - (i) Coating and cleaning subject to one of the following subsections of this section: (l) through (r) and (hh) through (kk),
 - (ii) Coating applied in an automotive refinishing operation and related cleaning,
 - (iii) Coating and associated surface preparation and cleanup subject to section 22a-174-41 of the Regulations of Connecticut State Agencies,
 - (iv) Coating applied to test materials, test panels and coupons in research and development, quality control or performance testing,
 - (v) Coating applied in a shipbuilding and repair operation, provided that the operation is subject to 40 CFR 63 Subpart II,
 - (vi) Coating applied to space vehicles and related cleaning,
 - (vii) Coating applied to antique aerospace vehicles and related cleaning,
 - (viii) Coating applied with a hand-held aerosol can,
 - (ix) Adhesive, sealant, adhesive primer or sealant primer regulated by section 22a-174-44 of the Regulations of Connecticut State Agencies,
 - (x) Quality control or inspection dyes applied to metal parts,
 - (xi) Use of coatings containing VOC at concentrations less than 1.0 percent by weight, or

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- (xii) Use of cleaning solvents containing VOC at concentrations less than 5.0 percent by weight.
 - (xiii) Maintenance coating and related cleaning of fixtures, equipment and components that are not products manufactured by the facility or products coated on a contract basis.
- (B) The requirements of subdivisions (3) and (4) of this subsection shall not apply to the application of any of the following coatings to metal parts:
- (i) Stencil coating.
 - (ii) Safety-indicating coating.
 - (iii) Solid-film lubricant.
 - (iv) Electric-insulating and thermal-conducting coating.
 - (v) Magnetic data storage disk coating.
 - (vi) Plastic extruded onto metal parts to form a coating, or
 - (vii) Powder coating.
- (C) The requirements of subdivision (3) of this subsection shall not apply to the application of any of the following coatings to plastic parts:
- (i) Touch-up and repair coating.
 - (ii) Stencil coating applied on a clear or transparent substrate.
 - (iii) Clear or translucent coating.
 - (iv) Reflective coating applied to a highway cone.
 - (v) Mask coating less than 0.5 millimeter thick applied to an area less than 25 square inches.
 - (vi) EMI/RFI shield coating.
 - (vii) Any heparin-benzalkonium chloride (HBAC)-containing coating applied to a medical device, provided that the total of all HBAC-containing coatings used at a facility does not exceed 100 gallons per year, or
 - (viii) Powder coating.

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- (D) The requirements of subdivision (3) of this subsection shall not apply to the application of any of the following coatings to automotive-transportation and business machine parts:
- (i) Vacuum metalizing coating,
 - (ii) Gloss reducer,
 - (iii) Texture coat,
 - (iv) Adhesion primer,
 - (v) Electrostatic preparation coating,
 - (vi) Resist coating,
 - (vii) Stencil coating, or
 - (viii) Powder coating.
- (E) The requirements of subdivisions (3) and (4) of this subsection shall not apply to the application of any of the following specialty coatings to an aerospace vehicle or component:
- (i) Touch-up coating, or
 - (ii) Aerospace coating that the United States Department of Defense has designated as classified information in accordance with 32 CFR 2001.
- (F) The requirements of subdivision (4) of this subsection shall not apply to the following activities:
- (i) Application of touch-up and repair coating to metal parts,
 - (ii) Application of textured finish to metal parts,
 - (iii) Application of powder coating to:
 - (I) Plastic parts,
 - (II) Automotive-transportation plastic parts, or
 - (III) Business machine plastic parts,
 - (iv) Airbrush application of coating to metal or plastic parts using no more than five gallons of coating per year,

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- (v) Use of air pollution control equipment to comply with subdivision (3) of this subsection, or
 - (vi) Application of specialty coatings listed in Table 20(s)-6a of this subsection.
- (G) An owner or operator with total potential VOC emissions from all miscellaneous metal and plastic parts coating, including emissions from related cleaning, limited by permit or order of the commissioner to 1,666 pounds or less in any calendar month, shall not be subject to the requirements of subdivision (3) of this subsection, provided that the owner or operator operates in compliance with such a permit or an order.
- (H) An owner or operator may use in aggregate in any 12 consecutive months no more than 55 gallons of miscellaneous metal or plastic parts coating or coatings that exceed the VOC content limits or emission limits of subdivision (3) of this subsection provided the owner or operator maintains records of non-compliant coating use.
- (I) An owner or operator controlling emissions as provided in subdivision (3) of this subsection is exempt from any obligation to comply with subsection (bb) of this section.
- (J) The requirements of subdivision (3) of this subsection shall not apply, upon request to and approval by the commissioner and the Administrator. Any request for approval shall be made in writing to the commissioner and shall include a description of the noncompliant coating and its VOC content, an explanation of why the noncompliant coating is necessary, the aggregate amount in gallons or pounds of noncompliant coating use anticipated in a 12-month period and the frequency of use of the noncompliant coating.
- (8) Records.
- (A) Except as provided in subparagraphs (B) and (C), an owner or operator shall maintain records of information sufficient to determine compliance with the applicable requirements of this subsection, including, at a minimum, the following information for each calendar month:
- (i) Name and description of each coating and cleaning solvent,
 - (ii) VOC content of each coating and diluent, as applied, and the associated calculations,
 - (iii) VOC content of each coating or cleaning solvent, as supplied,
 - (iv) The amount of each coating and cleaning solvent:
 - (I) Purchased, or

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- (II) Used,
- (v) A Material Safety Data Sheet, Environmental Data Sheet, Certified Product Data Sheet, or an equivalent data sheet for each coating and cleaning solvent,
- (vi) Documentation of control device efficiency and capture efficiency, if applicable, using an applicable EPA reference method or alternate method as approved by the commissioner and the Administrator, and
- (vii) Date and type of maintenance performed on air pollution control equipment, if applicable.
- (B) Any owner or operator who does not meet the applicability thresholds provided in subdivision (2)(A) of this subsection shall maintain either material purchase or actual usage records to verify that this subsection does not apply to such owner or operator.
- (C) An owner or operator operating pursuant to an exception or exemption in subdivision (7) of this subsection shall maintain records sufficient to verify the applicability of the exception or exemption.
- (D) All records made pursuant to this subdivision shall be:
- (i) Made available to the commissioner to inspect and copy upon request, and
- (ii) Maintained for five years from the date such record is created.
- (9) Compliance procedures.
- (A) The VOC content limits of Table 20(s)-1, 20(s)-2, 20(s)-3, 20(s)-4, 20(s)-5, 20(s)-6a or 20(s)-6b apply to the volume of coating as applied, determined using the following equation:
- $$\text{VOC Content} = (Ws - Ww - Wes) / (Vm - Vw - Ves)$$
- Where:
- Ws = weight of volatile compounds in grams
- Ww = weight of water in grams
- Wes = weight of exempt compounds in grams
- Vm = volume of coating in liters
- Vw = volume of water in liters
- Ves = volume of exempt compounds in liters
- (B) The VOC emission rate limits of Table 20(s)-7, 20(s)-8, 20(s)-9, or 20(s)-10 apply to the mass of VOC emitted per volume of coating solids, as applied.

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- (C) To determine the properties of a coating or components thereof in order to perform the calculations required pursuant to subparagraph (A) of this subdivision or to verify calculations based on the manufacturer's formulation data, the VOC and solids content of all coatings shall be determined using 40 CFR 60, Appendix A, Reference Method 24 or an equivalent method. In the case of a dispute, the VOC content determined using Reference Method 24 shall control, unless a person is able to demonstrate to the satisfaction of the commissioner and the Administrator that the manufacturer's formulation data are correct.
- (D) For red, yellow or black automotive coatings, except touch-up and repair coatings, the applicable VOC content limit or emission rate shall be the limit of Table 20(s)-3 or 20(s)-9, as applicable, multiplied by 1.15.
- (E) Where a VOC content limit or emissions rate is provided in metric units and equivalent English units, the limit or rate in metric units defines the standard. The English units are provided for information only.
- (F) A miscellaneous metal or plastic parts coating shall be defined and categorized based on the manufacturer's representations as set out on the container or label or in information provided by the manufacturer of such a miscellaneous metal or plastic parts coating.
- (10) Limitations on potential to emit.
- (A) An owner or operator may submit a request to the commissioner for an order or permit to limit potential emissions from all miscellaneous metal and plastic parts coating at the premises to a monthly limit of 1,666 pounds of VOC; or
- (B) An owner or operator issued a permit or order prior to January 1, 2013 pursuant to former section 22a-174-20(s)(7) of the Regulations of Connecticut State Agencies may:
- (i) Continue after January 1, 2013 to conduct miscellaneous metal parts coating in compliance with such a permit or order,
- (ii) Submit a request to the commissioner to modify the order or permit to include all miscellaneous metal and plastic parts coating at the premises in the monthly limit of 1,666 pounds of VOC, or
- (iii) Submit a request to the commissioner to revoke the order or permit.

Table 20(s)-1				
Metal Parts Coating VOC Content Limits				
<u>Coating Category</u>	<u>Air Dried</u>		<u>Baked</u>	
	<u>g VOC/ liter coating</u>	<u>lbs VOC/ gal coating</u>	<u>g VOC/ liter coating</u>	<u>lbs VOC/ gal coating</u>

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<u>General one-component</u>	<u>340</u>	<u>2.8</u>	<u>280</u>	<u>2.3</u>
<u>General multi-component</u>	<u>340</u>	<u>2.8</u>	<u>280</u>	<u>2.3</u>
<u>Camouflage</u>	<u>420</u>	<u>3.5</u>	<u>420</u>	<u>3.5</u>
<u>Electric-insulating varnish</u>	<u>420</u>	<u>3.5</u>	<u>420</u>	<u>3.5</u>
<u>Etching filler</u>	<u>420</u>	<u>3.5</u>	<u>420</u>	<u>3.5</u>
<u>Extreme high-gloss</u>	<u>420</u>	<u>3.5</u>	<u>360</u>	<u>3.0</u>
<u>Extreme performance</u>	<u>420</u>	<u>3.5</u>	<u>360</u>	<u>3.0</u>
<u>Heat-resistant</u>	<u>420</u>	<u>3.5</u>	<u>360</u>	<u>3.0</u>
<u>High performance architectural</u>	<u>740</u>	<u>6.2</u>	<u>740</u>	<u>6.2</u>
<u>High temperature</u>	<u>420</u>	<u>3.5</u>	<u>420</u>	<u>3.5</u>
<u>Metallic</u>	<u>420</u>	<u>3.5</u>	<u>420</u>	<u>3.5</u>
<u>Mold-seal</u>	<u>420</u>	<u>3.5</u>	<u>420</u>	<u>3.5</u>
<u>Pan backing</u>	<u>420</u>	<u>3.5</u>	<u>420</u>	<u>3.5</u>
<u>Prefabricated architectural multi-component</u>	<u>420</u>	<u>3.5</u>	<u>280</u>	<u>2.3</u>
<u>Prefabricated architectural one-component</u>	<u>420</u>	<u>3.5</u>	<u>280</u>	<u>2.3</u>
<u>Pretreatment coating</u>	<u>420</u>	<u>3.5</u>	<u>420</u>	<u>3.5</u>
<u>Repair and touch-up</u>	<u>420</u>	<u>3.5</u>	<u>360</u>	<u>3.0</u>
<u>Silicone release</u>	<u>420</u>	<u>3.5</u>	<u>420</u>	<u>3.5</u>
<u>Solar-absorbent</u>	<u>420</u>	<u>3.5</u>	<u>360</u>	<u>3.0</u>
<u>Vacuum-metalizing</u>	<u>420</u>	<u>3.5</u>	<u>420</u>	<u>3.5</u>
<u>Drum coating, new, exterior</u>	<u>340</u>	<u>2.8</u>	<u>340</u>	<u>2.8</u>
<u>Drum coating, new, interior</u>	<u>420</u>	<u>3.5</u>	<u>420</u>	<u>3.5</u>
<u>Drum coating, reconditioned, exterior</u>	<u>420</u>	<u>3.5</u>	<u>420</u>	<u>3.5</u>
<u>Drum coating, reconditioned, interior</u>	<u>500</u>	<u>4.2</u>	<u>500</u>	<u>4.2</u>

Table 20(s)-2		
Plastic Parts Coating VOC Content Limits		
Coating Category	g VOC/liter coating	lbs VOC/gal coating
<u>General one-component</u>	<u>280</u>	<u>2.3</u>
<u>General multi-component</u>	<u>420</u>	<u>3.5</u>
<u>Electric dissipating coatings and shock-free coating</u>	<u>800</u>	<u>6.7</u>
<u>Extreme performance multi-component</u>	<u>420</u>	<u>3.5</u>
<u>Metallic</u>	<u>420</u>	<u>3.5</u>
<u>Mold-seal</u>	<u>760</u>	<u>6.3</u>
<u>Multi-colored coating</u>	<u>680</u>	<u>5.7</u>
<u>Optical coating</u>	<u>800</u>	<u>6.7</u>

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Vacuum-metalizing	800	6.7
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Table 20(s)-3		
Automotive-Transportation Plastic Parts Coating VOC Content Limits		
Coating Category	g VOC/liter coating	lbs VOC/gal coating
I. High bake coatings – interior and exterior parts		
Flexible primer	540	4.5
Non-flexible primer	420	3.5
Base coat	520	4.3
Clear coat	480	4.0
Non-basecoat/clear coat	520	4.3
II. Low bake/air dried coatings – exterior parts		
Primer	580	4.8
Basecoat	600	5.0
Clearcoat	540	4.5
Non-basecoat/clearcoat	600	5.0
III. Low bake/air dried coatings – interior parts	600	5.0
IV. Touchup and repair coating	620	5.2

Table 20(s)-4		
Business Machine Plastic Parts Coating VOC Content Limits		
Coating Category	g VOC/liter coating	lbs VOC/gal coating
I. Primers	350	2.9
II. Topcoat	350	2.9
III. Texture coat	350	2.9
IV. Fog coat	260	2.2
V. Touchup and repair	350	2.9

Table 20(s)-5		
Motor Vehicle Materials VOC Content Limits		
Coating Category	g VOC/liter coating	lbs VOC/gal coating
Motor vehicle cavity wax	650	5.4
Motor vehicle sealer	650	5.4
Motor vehicle deadener	650	5.4

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Motor vehicle gasket/gasket sealing material	200	1.7
Motor vehicle underbody coating	650	5.4
Motor vehicle trunk interior coating	650	5.4
Motor vehicle bedliner coating	200	1.7
Motor vehicle lubricating wax/compound	700	5.8

**Table 20(s)-6a
Aerospace Specialty Coating VOC Content Limits**

Coating type	g VOC/liter coating
Ablative coating	600
Adhesion promoter	890
Adhesive bonding primers:	
Cured at 250°F or below	850
Cured above 250°F	1030
Adhesives:	
Commercial interior adhesive	760
Cyanoacrylate adhesive	1,020
Fuel tank adhesive	620
Nonstructural adhesive	360
Rocket motor bonding adhesive	890
Rubber-based adhesive	850
Structural autoclavable adhesive	60
Structural nonautoclavable adhesive	850
Aerospace high-temperature coating	850
Antichafe coating	660
Bearing coating	620
Caulking and smoothing compounds	850
Chemical agent-resistant coating	550
Clear coating	720
Commercial exterior aerodynamic structure primer	650
Compatible substrate primer	780
Corrosion prevention compound	710
Cryogenic flexible primer	645
Cryoprotective coating	600
Dry lubricative material	880
Electric or radiation-effect coating	800
Electrostatic discharge and electromagnetic interference (EMI) coating	800
Elevated-temperature Skydrol-resistant commercial primer	740
Epoxy polyamide topcoat	660
Fire-resistant interior coating	800
Flexible primer	640
Flight-test coatings:	
Missile or single use aircraft	420
All other	840
Fuel-tank coating	720

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<u>Insulation covering</u>	<u>740</u>
<u>Intermediate release coating</u>	<u>750</u>
<u>Lacquer</u>	<u>830</u>
<u>Maskants:</u>	
<u>Bonding maskant</u>	<u>1,230</u>
<u>Critical use and line sealer maskant</u>	<u>1,020</u>
<u>Seal coat maskant</u>	<u>1,230</u>
<u>Metallized epoxy coating</u>	<u>740</u>
<u>Mold release</u>	<u>780</u>
<u>Optical anti-reflective coating</u>	<u>750</u>
<u>Part marking coating</u>	<u>850</u>
<u>Pretreatment coating</u>	<u>780</u>
<u>Rain erosion-resistant coating</u>	<u>850</u>
<u>Rocket motor nozzle coating</u>	<u>660</u>
<u>Scale inhibitor</u>	<u>880</u>
<u>Screen print ink</u>	<u>840</u>
<u>Sealants:</u>	
<u>Extrudable/rollable/brushable sealant</u>	<u>280</u>
<u>Sprayable sealant</u>	<u>600</u>
<u>Silicone insulation material</u>	<u>850</u>
<u>Solid film lubricant</u>	<u>880</u>
<u>Specialized function coating</u>	<u>890</u>
<u>Temporary protective coating</u>	<u>320</u>
<u>Thermal control coating</u>	<u>800</u>
<u>Wet fastener installation coating</u>	<u>675</u>
<u>Wing coating</u>	<u>850</u>

Table 20(s)-6b
Aerospace Coating VOC Content Limits

Coating type	g VOC/liter coating
<u>Primer – general aviation rework facilities</u>	<u>540</u>
<u>Exterior primer – large commercial aircraft components</u>	<u>650</u>
<u>Exterior primer – fully assembled, large commercial aircraft</u>	<u>650</u>
<u>Primer</u>	<u>350</u>
<u>Topcoat</u>	<u>420</u>
<u>Topcoat – general aviation rework facilities</u>	<u>540</u>
<u>Self-priming topcoat</u>	<u>420</u>
<u>Self-priming topcoat – general aviation rework facilities</u>	<u>540</u>
<u>Type I chemical milling maskant</u>	<u>622</u>
<u>Type II chemical milling maskant</u>	<u>160</u>

Table 20(s)-7
Metal Parts Coating VOC Emission Rate Limits

	Air Dried	Baked
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<u>Coating Category</u>	<u>g VOC/ liter solids</u>	<u>lb VOC/ gal solids</u>	<u>g VOC/ liter solids</u>	<u>lb VOC/ gal solids</u>
<u>General one-component</u>	<u>540</u>	<u>4.52</u>	<u>400</u>	<u>3.35</u>
<u>General multi-component</u>	<u>540</u>	<u>4.52</u>	<u>400</u>	<u>3.35</u>
<u>Camouflage</u>	<u>800</u>	<u>6.67</u>	<u>800</u>	<u>6.67</u>
<u>Electric-insulating varnish</u>	<u>800</u>	<u>6.67</u>	<u>800</u>	<u>6.67</u>
<u>Etching filler</u>	<u>800</u>	<u>6.67</u>	<u>800</u>	<u>6.67</u>
<u>Extreme high-gloss</u>	<u>800</u>	<u>6.67</u>	<u>610</u>	<u>5.06</u>
<u>Extreme performance</u>	<u>800</u>	<u>6.67</u>	<u>610</u>	<u>5.06</u>
<u>Heat-resistant</u>	<u>800</u>	<u>6.67</u>	<u>610</u>	<u>5.06</u>
<u>High performance architectural</u>	<u>4560</u>	<u>38</u>	<u>4560</u>	<u>38</u>
<u>High temperature</u>	<u>800</u>	<u>6.67</u>	<u>800</u>	<u>6.67</u>
<u>Metallic</u>	<u>800</u>	<u>6.67</u>	<u>800</u>	<u>6.67</u>
<u>Mold-seal</u>	<u>800</u>	<u>6.67</u>	<u>800</u>	<u>6.67</u>
<u>Pan backing</u>	<u>800</u>	<u>6.67</u>	<u>800</u>	<u>6.67</u>
<u>Prefabricated architectural multi-component</u>	<u>800</u>	<u>6.67</u>	<u>400</u>	<u>3.35</u>
<u>Prefabricated architectural one-component</u>	<u>800</u>	<u>6.67</u>	<u>400</u>	<u>3.35</u>
<u>Pretreatment coating</u>	<u>800</u>	<u>6.67</u>	<u>800</u>	<u>6.67</u>
<u>Silicone release</u>	<u>800</u>	<u>6.67</u>	<u>800</u>	<u>6.67</u>
<u>Solar-absorbent</u>	<u>800</u>	<u>6.67</u>	<u>610</u>	<u>5.06</u>
<u>Vacuum-metalizing</u>	<u>800</u>	<u>6.67</u>	<u>800</u>	<u>6.67</u>
<u>Drum coating, new, exterior</u>	<u>540</u>	<u>4.52</u>	<u>540</u>	<u>4.52</u>
<u>Drum coating, new, interior</u>	<u>800</u>	<u>6.67</u>	<u>800</u>	<u>6.67</u>
<u>Drum coating, reconditioned, exterior</u>	<u>800</u>	<u>6.67</u>	<u>800</u>	<u>6.67</u>
<u>Drum coating, reconditioned, interior</u>	<u>1170</u>	<u>9.78</u>	<u>1170</u>	<u>9.78</u>

<u>Coating Category</u>	<u>g VOC/liter solids</u>	<u>lbs VOC/gal solids</u>
<u>General one-component</u>	<u>400</u>	<u>3.35</u>
<u>General multi-component</u>	<u>800</u>	<u>6.67</u>
<u>Electric dissipating coatings and shock-free coatings</u>	<u>8960</u>	<u>74.7</u>
<u>Extreme performance multi-component</u>	<u>800</u>	<u>6.67</u>
<u>Metallic</u>	<u>800</u>	<u>6.67</u>
<u>Mold-seal</u>	<u>5240</u>	<u>43.7</u>

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<u>Multi-colored coatings</u>	<u>3040</u>	<u>25.3</u>
<u>Optical coatings</u>	<u>8960</u>	<u>74.7</u>
<u>Vacuum-metalizing</u>	<u>8960</u>	<u>74.7</u>

Table 20(s)-9		
Automotive-Transportation Plastic Parts Coating VOC Emission Rate Limits		
Coating Category	g VOC/liter solids	lbs VOC/gal solids
I. High bake coatings – interior and exterior parts		
<u>Flexible primer</u>	<u>1390</u>	<u>11.58</u>
<u>Non-flexible primer</u>	<u>800</u>	<u>6.67</u>
<u>Base coat</u>	<u>1240</u>	<u>10.34</u>
<u>Clear coat</u>	<u>1050</u>	<u>8.76</u>
<u>Non-basecoat/clear coat</u>	<u>1240</u>	<u>10.34</u>
II. Low bake/air dried coatings – exterior parts		
<u>Primer</u>	<u>1660</u>	<u>13.8</u>
<u>Basecoat</u>	<u>1870</u>	<u>15.59</u>
<u>Clearcoat</u>	<u>1390</u>	<u>11.58</u>
<u>Non-basecoat/clearcoat</u>	<u>1870</u>	<u>15.59</u>
III. Low bake/air dried coatings – interior parts	<u>1870</u>	<u>15.59</u>
IV. Touch-up and repair coating	<u>2130</u>	<u>17.72</u>

Table 20(s)-10		
Business Machine Plastic Parts Coating VOC Emission Rate Limits		
Coating Category	g VOC/liter solids	lbs VOC/gal solids
I. Primers	<u>570</u>	<u>4.80</u>
II. Topcoat	<u>570</u>	<u>4.80</u>
III. Texture coat	<u>570</u>	<u>4.80</u>
IV. Fog coat	<u>380</u>	<u>3.14</u>
V. Touchup and repair	<u>570</u>	<u>4.80</u>

Sec. 2. Subdivision (1) of subsection (aa) of section 22a-174-20 of the Regulations of Connecticut State Agencies is amended to read as follows:

(aa) Record keeping requirements and test methods.

(1) The owner or “operator” of any premise subject to the provisions of subsections (m) through [(s)] (r) inclusive and subsection (v) of section 22a-174-20 shall maintain daily records of all coatings and diluents used. Such records shall be kept for each individual machine, operation or coating line. The records must contain the information required below.

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- (A) description of the coating including the coating name and the coating density in pounds per gallon;
- (B) “volatile organic compound” content by weight;
- (C) water and exempt volatile organic compound content by weight;
- (D) non-volatile content by volume and by weight;
- (E) amount of each coating used in gallons;
- (F) total amount of diluent used for each coating in pounds and in gallons.

Sec. 3. Subdivisions (2) and (3) of subsection (cc) of section 22a-174-20 of the Regulations of Connecticut State Agencies are amended to read as follows:

[(cc)(2)] (2) The implementation of an alternative emission reduction plan instead of compliance with the [“]emissions limitation[”] prescribed in any one of subsections (m) through (v), [inclusive and] (ee) or (ff) through (kk) of this section must be expressly approved by the [“Commissioner”] commissioner through the issuance of a permit or an order in accordance with the provisions of section 22a-174-12 of the Regulations of Connecticut State Agencies and approved by the [“administrator”] Administrator in accordance with the provisions of 42 [U.S.C.] USC 7401-7642. After approval, any emissions in excess of those established for each emission source under the plan will be a violation of these regulations.

[(cc)(3)] (3) Where it can be shown to the satisfaction of the [“Commissioner”] commissioner that an emission source cannot be controlled to comply with any one of subsections (m) through (v), [inclusive and] (ee) or (ff) through (kk) of this section for reasons of technological and economic feasibility, the [“Commissioner”] commissioner may by permit or order accept a lesser degree of control upon the submission of satisfactory evidence that the [“]stationary source[”] owner has applied [“]Reasonably Available Control Technology[”] and has a plan to develop the technologies necessary to comply with [the above subsections] the applicable subsection of subsections (m) through (v), (ee) or (ff) through (kk) of this section and such action is approved by the [“administrator”] Administrator in accordance with the provisions of 42 [U.S.C.] USC 7401-7642.

Sec. 4. Section 22a-174-20(ii)(3)(A) of the Regulations of Connecticut State Agencies is amended to read as follows:

- (A) The requirements of this subsection shall not apply to the use of cleaning solvent as follows:
 - (i) In janitorial cleaning,

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- (ii) At an aerospace manufacturing and rework operation or a wood furniture coating operation in accordance with an order or a permit issued pursuant to sections 22a-174-32(e) and 22a-174-20(cc) of the Regulations of Connecticut State Agencies,
- (iii) To perform general solvent cleaning in accordance with an order issued pursuant to section 22a-174-20(ee) of the Regulations of the Connecticut State Agencies,
- (iv) At any aerospace manufacturing and rework facility, provided that cleaning solvent is used in accordance with the requirements of 40 CFR 63.744, inclusive of exemptions,
- (v) As surface preparation or cleanup solvent in accordance with section 22a-174-44 of the Regulations of Connecticut State Agencies,
- (vi) Where the cleaning solvent is regulated pursuant to section 22a-174-40 of the Regulations of Connecticut State Agencies,
- (vii) To perform industrial solvent cleaning where such cleaning or cleaning solvent is subject to one of the following subsections of this section: (l) through (y), (ff) through (hh), or (jj),
- (viii) In cleaning, including surface preparation prior to coating, necessary to meet a standard or specification issued or approved by the United States Department of Defense, Federal Aviation Administration or other federal government entity. Any person claiming exemption pursuant to this clause shall maintain records of the standard or specification,
- (ix) Associated with research and development,
- (x) Associated with quality control or laboratory testing[,] of coatings, inks or adhesives.
- (xi) Associated with medical device manufacturing,
- (xii) Associated with pharmaceutical manufacturing,
- (xiii) That exceeds the applicable limit of subdivision (4)(A) of this subsection where the quantity used does not exceed 55 gallons per any twelve-month rolling aggregate. Any person claiming exemption pursuant to this clause shall record and maintain monthly records sufficient to demonstrate compliance with this exemption, or
- (xiv) That exceeds the applicable limit of subdivision (4)(A) of this subsection, if approved by the commissioner and the Administrator. Any request for approval shall be made in writing to the commissioner and Administrator and shall include a description of the cleaning solvent and its VOC content, an explanation of why the cleaning solvent is necessary, quantification of the amount of the VOC that

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will be emitted as a result of the use of the noncompliant cleaning solvent and the time period over which the noncompliant solvent will be used.

Sec. 5. Section 22a-174-20 of the Regulations of Connecticut State Agencies is amended by the addition of new subsection (kk), as follows:

(NEW)

(kk) Pleasure craft coatings

- (1) Definitions. For the purposes of this section, the following definitions apply:
- (A) “Airless spray application” means a coating spray application system using high fluid pressure, without compressed air, to atomize the coating;
 - (B) “Air-assisted airless spray application” means a coating spray application system using fluid pressure to atomize the coating and low pressure air to adjust the shape of the spray pattern;
 - (C) “Antifouling coating” means a coating applied to the underwater portion of a pleasure craft to prevent or reduce the attachment of biological organisms;
 - (D) “Antifouling sealer or tie coat” means a coating applied over biocidal antifouling coating for the purpose of preventing release of biocides into the environment or to promote adhesion between an antifouling coating and a primer or another antifouling coating;
 - (E) “As applied” means the composition of coating, excluding water and exempt compounds, at the time it is applied to a surface, including any solvent, catalyst or other substance added to the coating;
 - (F) “Capture efficiency” means the ratio of VOC emissions delivered to the control device to the total VOC emissions resulting from pleasure craft coating and related cleaning, expressed as a percentage;
 - (G) “Control device efficiency” means the ratio of VOC emissions recovered or destroyed by the control device to the total VOC emissions that are introduced into the device, expressed as a percentage;
 - (H) “Electrostatic application” means a method of applying coating particles or coating droplets to a grounded surface by electrically charging such particles or droplets;

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- (I) “Exempt compound” means a carbon compound excluded from the definition of “volatile organic compound” as defined in section 22a-174-1 of the Regulations of Connecticut State Agencies;
- (J) “Extreme high-gloss coating” means a coating that, when tested by American Society for Testing Material Test Method D523-08, Standard Test Method for Specular Gloss, shows a reflectance of 90 or more on a 60 degree meter;
- (K) “Finish primer or surfacer” means a coating applied with a wet film thickness of less than 10 millimeters prior to the application of a topcoat for purposes of providing corrosion resistance, adhesion of subsequent coatings, a moisture barrier or promotion of a uniform surface necessary for filling in surface imperfections;
- (L) “Flow coating” means a non-atomized technique of applying coating in a fan pattern to a substrate using a fluid nozzle with no air supplied to the nozzle;
- (M) “High build primer or surfacer” means a coating applied with a wet film thickness of 10 millimeters or more prior to the application of a topcoat for purposes of providing corrosion resistance, adhesion of subsequent coatings, a moisture barrier or promotion of a uniform surface necessary for filling in surface imperfections;
- (N) “High gloss coating” means a coating that, when tested by American Society for Testing Material Test Method D523-08, Standard Test Method for Specular Gloss, shows a reflectance of 85 or more on a 60 degree meter;
- (O) “HVLP spray application” means to apply a coating using a coating application system that uses lower air pressure and higher volume than conventional air atomized spray systems, where the manufacturer has represented that the system is HVLP by affixing a permanent label or through representations on the packaging or other product literature;
- (P) “Overall control efficiency” means the product of the capture efficiency and the control device efficiency;
- (Q) “Pleasure craft” means any marine or freshwater vessel manufactured or operated primarily for recreational purposes;
- (R) “Pleasure craft coating” means any marine coating, except unsaturated polyester resin (fiberglass), applied to a pleasure craft or to parts and components of a pleasure craft;
- (S) “Pretreatment wash primer” means a coating, containing at least 0.1 percent acid by weight and no more than 25 percent solids by weight, that is used to provide surface etching and is applied directly to fiberglass and metal surfaces to provide corrosion resistance and adhesion of subsequent coatings;

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- (T) "Related cleaning" means the removal of uncured coatings, coating residue, and contaminants from:
 - (i) Pleasure craft or parts and components of pleasure craft prior to the application of coatings,
 - (ii) Pleasure craft or parts and components of pleasure craft between coating applications, or
 - (iii) Transfer lines, storage tanks, spray booths, and coating application equipment; and
 - (U) "Transfer efficiency" means the portion of coating solids that adheres to the pleasure craft surface during the application process, expressed as a percentage of the total volume of coating solids delivered by the applicator.
- (2) Applicability.
- (A) Except as provided in subdivision (3) of this subsection, the provisions of this subsection apply to the owner or operator of any marina, boat yard, or other premises where pleasure craft coating is applied for commercial purposes at the direction of such owner or operator, if:
 - (i) Such owner or operator was subject to subsection (s) of this section prior to January 1, 2013, or
 - (ii) Such owner or operator purchases for use in all pleasure craft coating and related cleaning at the premises 855 gallons or more of coatings and cleaning solvents in aggregate per rolling 12-month period;
 - (B) An owner or operator subject to this subsection shall:
 - (i) For a source operating prior to January 1, 2013, comply with the requirements of this subsection no later than January 1, 2013, or
 - (ii) For a source that commences operation after January 1, 2013, comply with the requirements of this subsection upon commencing operation; and
 - (C) Any owner or operator subject to this subsection shall remain subject to this subsection.
- (3) Exemptions and exceptions.
- (A) Except as provided in subdivision (7) of this subsection, the requirements of this subsection shall not apply to any of the following activities, and the VOC emissions resulting from the following activities shall not be included in determinations pursuant to subdivision (2) or (4)(E) of this subsection:

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- (i) Coating and cleaning subject to one of the following subsections of this section: (l) through (s) and (hh) through (jj),
 - (ii) Coating and associated surface preparation and cleanup subject to section 22a-174-41 of the Regulations of Connecticut State Agencies,
 - (iii) Coating applied with a hand-held aerosol can,
 - (iv) Application of adhesive, sealant, adhesive primer or sealant primer regulated by section 22a-174-44 of the Regulations of Connecticut State Agencies,
 - (v) Coating applied to test materials, test panels and coupons in research and development, quality control or performance testing,
 - (vi) Use of coatings containing VOC at concentrations less than 1.0 percent by weight, or
 - (vii) Use of cleaning solvents containing VOC at concentrations less than 5.0 percent by weight.
- (B) The requirements of subdivision (5) of this subsection shall not apply to the application of an extreme high gloss coating.
- (C) An owner or operator may use in aggregate in any 12 consecutive months no more than 55 gallons of pleasure craft coatings that exceed the VOC content limits or emission limits of subdivision (4) of this subsection.
- (4) On and after January 1, 2013, no owner or operator of a pleasure craft coating operation shall apply any coating, inclusive of any VOC-containing material added to the original coating supplied by the manufacturer, unless the owner or operator controls emissions of VOCs in accordance with subparagraph (A), (B), (C), (D) or (E) of this subdivision. If more than one emission limit or emission rate applies in a particular situation, then the least restrictive limit or rate shall apply. An owner or operator shall:
- (A) Use only coatings that have an as applied VOC content no greater than the applicable level in Table 20(kk)-1;
 - (B) Use a combination of low-VOC coatings and add-on air pollution control equipment to achieve a VOC emission rate no greater than the applicable level in Table 20(kk)-2;
 - (C) Install, operate and maintain according to the manufacturer's recommendations air pollution control equipment with an overall control efficiency of at least 90%;

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- (D) Use an alternative means, achieving a level of control equivalent to subparagraph (A), (B) or (C) of this subdivision, requested from and approved by the commissioner in accordance with subsection (cc) of this section; and
 - (E) Limit the total potential VOC emissions from all pleasure craft coating operations and related cleaning by permit or order of the commissioner to 1,666 pounds or less in any calendar month.
- (5) Application methods. Except as provided in subdivision (3) of this subsection, an owner or operator shall not apply a VOC-containing coating to a pleasure craft or to a part or component of a pleasure craft unless the coating is applied by one of the methods identified in subparagraphs (A) through (F) of this subdivision using equipment operated in accordance with the specifications of the equipment manufacturer:
- (A) Electrostatic application;
 - (B) HVLP spray application;
 - (C) Airless spray application;
 - (D) Air-assisted airless spray application;
 - (E) Hand application; or
 - (F) Any other coating application method capable of achieving a transfer efficiency equivalent to or better than that provided by HVLP spray application. Any coating operation using an application method pursuant to this subparagraph shall maintain records demonstrating the transfer efficiency achieved.
- (6) Work practices. Each owner or operator shall use the following work practices:
- (A) New and used VOC-containing coating, diluent or cleaning solvent, including a coating mixed on the premises, shall be stored in a nonabsorbent, non-leaking container. Such a container shall be kept closed at all times except when the container is being filled, emptied or is otherwise actively in use;
 - (B) Spills and leaks of VOC-containing coating, diluent or cleaning solvent shall be minimized. Any leaked or spilled VOC-containing coating, diluent or cleaning solvent shall be contained, absorbed and removed immediately;
 - (C) Absorbent applicators, such as cloth and paper, which are moistened with a VOC-containing coating or solvent, shall be stored in a closed, nonabsorbent, non-leaking container for disposal or recycling; and
 - (D) VOC-containing coating, diluent and cleaning solvent shall be conveyed from one location to another in a closed container or pipe.

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(7) Records.

- (A) Except as provided in subparagraphs (B) and (C), an owner or operator shall maintain records of information sufficient to determine compliance with the applicable requirements of this subsection, including, at a minimum, the following information for each calendar month:
- (i) Name and description of each coating and cleaning solvent,
 - (ii) VOC content of each coating and diluent, as applied, and the associated calculations,
 - (iii) VOC content of each coating or cleaning solvent, as supplied,
 - (iv) The amount of each coating and cleaning solvent:
 - (I) Purchased, or
 - (II) Used,
 - (v) A Material Safety Data Sheet, Environmental Data Sheet, Certified Product Data Sheet, or an equivalent data sheet for each coating and cleaning solvent,
 - (vi) Documentation of control device efficiency and capture efficiency, if applicable, using an applicable EPA reference method or alternate method as approved by the commissioner and the Administrator, and
 - (vii) Date and type of maintenance performed on air pollution control equipment, if applicable.
- (B) Any owner or operator who does not meet the applicability thresholds provided in subdivision (2)(A) of this subsection shall maintain either material purchase or actual usage records to verify that this subsection does not apply to such owner or operator.
- (C) An owner or operator operating pursuant to an exception or exemption in subdivision (3) of this subsection shall maintain records sufficient to verify the applicability of the exception or exemption.
- (D) All records made pursuant to this subdivision shall be:
- (i) Made available to the commissioner to inspect and copy upon request, and
 - (ii) Maintained for five years from the date such record is created.

(8) Compliance procedures.

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- (A) The VOC content limits of Table 20(kk)-1 apply to the volume of coating as applied, determined using the following equation:

$$VOC\ Content = (Ws - Ww - Wes) / (Vm - Vw - Ves)$$

Where:

Ws = weight of volatile compounds in grams

Ww = weight of water in grams

Wes = weight of exempt compounds in grams

Vm = volume of coating in liters

Vw = volume of water in liters

Ves = volume of exempt compounds in liters

- (B) The VOC emission rate limits of Table 20(kk)-2 apply to the mass of VOC emitted per volume of coating solids, as applied.
- (C) To determine the properties of a coating or components thereof in order to perform the calculations required pursuant to subparagraph (A) of this subdivision or to verify calculations based on the manufacturer's formulation data, the VOC and solids content of all coatings shall be determined using 40 CFR 60, Appendix A, Reference Method 24 or an equivalent method. In the case of a dispute, the VOC content determined using Reference Method 24 shall control, unless a person is able to demonstrate to the satisfaction of the commissioner and the Administrator that the manufacturer's formulation data are correct.
- (D) Where a VOC content limit or emissions rate is provided in metric units and equivalent English units, the limit or rate in metric units defines the standard. The English units are provided for information only.
- (E) A pleasure craft coating shall be defined and categorized based on the manufacturer's representations as set out on the container or label or in information provided by the manufacturer of such a pleasure craft coating.

Table 20(kk)-1 Pleasure Craft Coating VOC Content Limits		
Coating Category	g VOC/liter coating	lbs VOC/gal coating
Extreme high gloss topcoat	600	5.0
High gloss topcoat	420	3.5
Pretreatment wash primer	780	6.5
Finish primer or surfacer	Effective until December 31, 2015: 600 Effective January 1,	Effective until December 31, 2015: 5.0 Effective January 1,

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	2016: 420	2016: 3.5
High build primer or surfacer	340	2.8
Aluminum substrate antifouling coating	560	4.7
Other substrate antifouling coating	400	3.3
Antifouling sealant or tie coat	420	3.5
All other pleasure craft surface coatings for metal or plastic	420	3.5

Coating Category	g VOC/liter solids	lbs VOC/gal solids
Extreme high gloss topcoat	1100	9.2
High gloss topcoat	800	6.7
Pretreatment wash primer	6670	55.6
Finish primer or surfacer	Effective until December 31, 2015: 1870 Effective January 1, 2016: 800	Effective until December 31, 2015: 15.59 Effective January 1, 2016: 6.7
High build primer or surfacer	550	4.6
Aluminum substrate antifouling coating	1530	12.8
Other substrate antifouling coating	764	6.4
Antifouling sealer or tie coat	800	6.7
All other pleasure craft surface coatings for metal or plastic	800	6.7

Statement of purpose: The main purpose of this proposal is to enhance existing and add new requirements to control volatile organic compound (VOC) emissions from two types of surface coating operations. VOC emissions are a precursor to ground-level ozone, a harmful air pollutant. The U.S. Environmental Protection Agency (EPA) has designated the entire state as nonattainment for the 2008 ozone national ambient air quality standard (NAAQS) and has initiated the statutorily required review of the NAAQS to be completed in 2013. The proposed limitations on VOC emissions will assist Connecticut to attain and maintain the federal ozone NAAQS.

The Department of Energy and Environmental Protection (DEEP) currently regulates VOC emissions from metal parts coating under section 22a-174-20 of the Regulations of Connecticut State Agencies (RCSA). In response to EPA guidance, DEEP is proposing to add more stringent VOC control requirements for metal parts and to broaden the applicability to include coating of plastic parts. (Section 1)

Also in accord with EPA guidance, DEEP is proposing new requirements for addition to RCSA section 22a-174-20 to limit VOC emissions from pleasure craft coating. Owners of marinas and

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boat yards that coat pleasure craft will be required to meet the VOC content limits for coatings and keep records of coatings and solvents purchased. (Section 5)

The requirements for both miscellaneous parts coating and pleasure craft coating include VOC content limits for coatings applied; work practices that limit evaporation and waste of coatings and solvents; coating application methods; and record keeping requirements.

Elements of the proposal aside from the parts and pleasure craft coating are minor revisions to address the interaction of the revised and new requirements with other subsections of RCSA section 22a-174-20. Such revisions are as follows:

- Removing redundant record keeping requirements for owners and operators of miscellaneous metal and plastic parts coating facilities (Section 2);
- Removing an artificial distinction between the use of permits and orders as the enforceable mechanisms for alternative emissions control scenarios for sources of volatile organic compound emissions (Section 3); and
- Making a minor clarification to the industrial solvent cleaning requirements of subsection (ii) of RCSA section 22a-174-20. (Section 4)

Attachment F

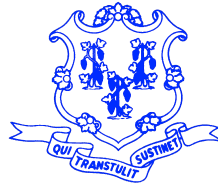
Report of the Legislative Commissioners' Office

The Connecticut General Assembly

Legislative Commissioners' Office

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Memorandum

To: Legislative Regulation Review Committee
From: Legislative Commissioners' Office
Committee Meeting Date: October 23, 2012

Regulation No:	2012-24A
Agency:	Department of Energy and Environmental Protection
Subject Matter:	Air Quality Regulations Concerning Certain Coating Operations
Statutory Authority: (copy attached)	22a-174

	Yes or No
Mandatory	Y
Federal Requirement	Y
Permissive	N

For the Committee's Information:

This is a resubmittal of regulations that were rejected without prejudice at the committee's meeting on July 24, 2012. The resubmittal addresses the substantive concerns and technical corrections noted in the July 24, 2012 report. There are additional technical corrections, as noted in the instant report.

Substantive Concerns:

Technical Corrections:

1. On page 14, in subdivision (2)(A)(i), "as was in effect" should be "that was in effect", for clarity.
2. On page 14, in subdivision (2)(A)(ii), "solvents in aggregate" should be "solvents in the aggregate", for clarity.

Recommendation:

<input checked="" type="checkbox"/>	Approval in whole
<input checked="" type="checkbox"/>	with technical corrections with deletions with substitute pages
	Disapproval in whole or in part
	Rejection without prejudice

Reviewed by: Bradford M. Towson / Angela Rehm

Date: October 10, 2012

Sec. 22a-174. (Formerly Sec. 19-508). Powers of the commissioner. Regulations. Fees. Exemptions. General permits. Appeal of commissioner's action re permit applications. (a) The commissioner, in the manner provided in subdivision (1) of section 22a-6, shall have the power to formulate, adopt, amend and repeal regulations to control and prohibit air pollution throughout the state or in such areas of the state as are affected thereby, which regulations shall be consistent with the federal Air Pollution Control Act and which qualify the state and its municipalities for available federal grants. Any person heard at the public hearing on any such regulation shall be given written notice of the determination of the commissioner.

(b) The commissioner shall have the power to (1) enter into contracts with technical consultants, including, but not limited to, nonprofit corporations created for the purpose of facilitating the state's implementation of multistate air pollution control programs, for special studies, advice and assistance; to consult with and advise and exchange information with other departments or agencies of the state; and (2) serve on the board of directors of a nonprofit corporation, including, but not limited to, a nonprofit corporation created for the purpose of facilitating the state's implementation of multistate air pollution control programs.

(c) The commissioner shall have the power, in accordance with regulations adopted by him, (1) to require that a person, before undertaking the construction, installation, enlargement or establishment of a new air contaminant source specified in the regulations adopted under subsection (a) of this section, submit to him plans, specifications and such information as he deems reasonably necessary relating to the construction, installation, enlargement, or establishment of such new air contaminant source; (2) to issue a permit approving such plans and specifications and permitting the construction, installation, enlargement or establishment of the new air contaminant source in accordance with such plans, or to issue an order requiring that such plans and specifications be modified as a condition to his approving them and issuing a permit allowing such construction, installation, enlargement or establishment in accordance therewith, or to issue an order rejecting such plans and specifications and prohibiting construction, installation, enlargement or establishment of a new air contaminant source in accordance with the plans and specifications submitted; (3) to require periodic inspection and maintenance of combustion equipment and other sources of air pollution; (4) to require any person to maintain such records relating to air pollution or to the operation of facilities designed to abate air pollution as he deems necessary to carry out the provisions of this chapter and section 14-164c; (5) to require that a person in control of an air contaminant source specified in the regulations adopted under subsection (a), obtain a permit to operate such source if the source (A) is subject to any regulations adopted by the commissioner concerning high risk hazardous air pollutants, (B) burns waste oil, (C) is allowed by the

commissioner, pursuant to regulations adopted under subsection (a), to exceed emission limits for sulfur compounds, (D) is issued an order pursuant to section 22a-178, or (E) violates any provision of this chapter, or any regulation, order or permit adopted or issued thereunder; (6) to require that a person in control of an air contaminant source who is not required to obtain a permit pursuant to this subsection register with him and provide such information as he deems necessary to maintain his inventory of air pollution sources and the commissioner may require renewal of such registration at intervals he deems necessary to maintain such inventory; (7) to require a permit for any source regulated under the federal Clean Air Act Amendments of 1990, P.L. 101-549; (8) to refuse to issue a permit if the Environmental Protection Agency objects to its issuance in a timely manner under Title V of the federal Clean Air Act Amendments of 1990; and (9) notwithstanding any regulation adopted under this chapter, to require that any source permitted under Title V of the federal Clean Air Act Amendments of 1990 shall comply with all applicable standards set forth in the Code of Federal Regulations, Title 40, Parts 51, 52, 59, 60, 61, 63, 68, 70, 72 to 78, inclusive, and 82, as amended from time to time.

(d) The commissioner shall have all incidental powers necessary to carry out the purposes of this chapter and section 14-164c.

(e) As used in this subsection, "contiguous" means abutting or adjoining without consideration of the actual or projected existence of roadways, walkways, plazas, parks or other minor intervening features; "indirect source" means any building, structure, facility, installation or combination thereof, that has or leads to associated activity as a result of which any air pollutant is or may be emitted. The commissioner shall not require the submission of plans and specifications under indirect source regulations adopted pursuant to subdivisions (1) and (2) of subsection (c) of this section for proposed construction to be undertaken within a redevelopment area or urban renewal project, as defined in chapter 130, provided (1) the proposed construction is pursuant to a plan for such redevelopment area or urban renewal project adopted pursuant to section 8-127 prior to October 1, 1974, or to a modification of such plan, (2) the proposed construction is part of a contiguous, single purpose or multipurpose development or developments and (3) site clearance or construction had commenced on a portion of the site of such development or developments prior to October 1, 1974, nor shall the commissioner issue any order pursuant to subdivision (1) of subsection (c) of this section pertaining to the enforcement of indirect source regulations with respect to such proposed construction within such redevelopment areas and urban renewal projects. In the event that the modification of any such plan after October 1, 1974, would result in the proposed construction generating substantially more motor vehicle traffic than would have been generated prior to such modification, the submission of plans and specifications shall be required for such proposed modification. The commissioner shall not require the renewal of an indirect source operating permit

issued in accordance with subsection (c) of this section unless such indirect source no longer conforms with plans, specifications or other information submitted to said commissioner in accordance with said subsection (c).

(f) The commissioner shall allow the open burning of brush on residential property, provided the burning is conducted by the resident of the property or the agent of the resident and a permit for such burning is obtained from the local open burning official of the municipality in which the property is located, and the open burning of brush in municipal landfills, transfer stations and municipal recycling centers, provided a permit for such burning is obtained from the fire marshal of the municipality where the facility is located, except that no open burning of brush shall occur (1) when national or state ambient air quality standards may be exceeded; (2) where a hazardous health condition might be created; (3) when the forest fire danger in the area is identified by the commissioner as extreme and where woodland or grass land is within one hundred feet of the proposed burn; (4) where there is an advisory from the commissioner of any air pollution episode; (5) where prohibited by an ordinance of the municipality; and (6) in the case of a municipal landfill, when such landfill is within an area designated as a hot spot on the open burning map prepared by the commissioner. A permit for the burning of brush at any municipal landfill, municipal transfer station or municipal recycling center shall be issued no more than six times in any calendar year. The proposed permit to burn brush at any municipal landfill, municipal transfer station or municipal recycling center shall be submitted to the commissioner by the fire marshal, with the approval of the chief elected official of the municipality in which the municipal landfill, municipal transfer station or municipal recycling center is located. The commissioner shall approve or disapprove the fire marshal's proposed permitting of burning of brush at a municipal landfill, municipal transfer station or municipal recycling center within a reasonable time of the filing of such application. The burning of leaves, demolition waste or other solid waste deposited in such landfill shall be prohibited. The burning of nonprocessed wood for campfires and bonfires is not prohibited if the burning is conducted so as not to create a nuisance and in accordance with any restrictions imposed on such burning. Nothing in this subsection or in any regulation adopted pursuant to this subsection shall affect the power of any municipality to regulate or ban the open burning of brush within its boundaries for any purpose. Notwithstanding any other provision of this section, fire breaks for the purpose of controlling forest fires and controlled fires in salt water marshes to forestall uncontrolled fires are not prohibited. Open burning may be engaged in for any of the following purposes if the open burning official with jurisdiction over the area where the burning will occur issues an open burning permit: Fire-training exercises; eradication or control of insect infestations or disease; agricultural purposes; clearing vegetative debris following a natural disaster; and vegetative management or enhancement of wildlife habitat or ecological sustainability on municipal property or on any privately owned property permanently

dedicated as open space. Open burning for such purposes on state property may be engaged in with the written approval of the commissioner. Local burning officials nominated for the purposes of this subsection shall be nominated only by the chief executive officer of the municipality in which the official will serve and shall be certified by the commissioner. The chief executive officer may revoke the nomination. The commissioner may adopt regulations, in accordance with the provisions of chapter 54, governing open burning and may authorize or prohibit open burning consistent with this section. The regulations may require the payment of an application fee and inspection fee and may establish a certification procedure for local burning officials.

(g) The commissioner shall require, by regulations adopted in accordance with the provisions of chapter 54, the payment of a permit application fee sufficient to cover the reasonable costs of reviewing and acting upon an application for, and monitoring compliance with the terms and conditions of, any state or federal permit, license, order, certificate or approval required pursuant to this section. Any person obtaining a permit, pursuant to said regulations, for the construction or operation of a source of air pollution or for modification to an existing source of air pollution shall submit a permit fee of twice the amount of the fee established by regulations in effect on July 1, 1990. The commissioner shall require the payment of a permit application fee of two hundred dollars.

(h) The commissioner may require, by regulations adopted in accordance with the provisions of chapter 54, payment of a fee by the owner or operator of a source of air pollution, sufficient to cover the reasonable cost of a visual test of an air pollution control device through the use of a dust compound in the detection of leaks in such device, or the monitoring of such test, provided such fee may not exceed the average cost to the department for the conduct or monitoring of such tests plus ten per cent of such average cost. Except as specified in section 22a-27u, all payments received by the commissioner pursuant to this subsection shall be deposited in the General Fund and credited to the appropriations of the Department of Energy and Environmental Protection in accordance with the provisions of section 4-86.

(i) Notwithstanding the provisions of subsections (g) and (h) of this section, no municipality shall be required to pay more than fifty per cent of any fee established by the commissioner pursuant to said subsections.

(j) Fees or increased fees prescribed by this section shall not be applicable to residential property.

(k) (1) The commissioner may issue a general permit with respect to a category of new or existing stationary air pollution sources, except with respect to a source which is already covered by an individual permit, provided the general permit is not inconsistent with the

federal Clean Air Act, as amended in 1990, 42 USC, Sections 7401 et seq., and as it may be further amended from time to time. Any person conducting an activity for which a general permit has been issued shall not be required to obtain an individual permit under this section, except as provided in subdivision (5) of this subsection. The general permit may regulate a category of sources which, whether or not requiring a permit under the federal Clean Air Act, (A) involve the same or substantially similar types of operations or substances, (B) require the same types of pollution control equipment or other operating conditions, standards or limitations, and (C) require the same or similar monitoring, and which, in the opinion of the commissioner, are more appropriately controlled under a general permit than under an individual permit. The general permit may require that any person proposing to conduct any activity under the general permit register such activity, including obtaining approval from the commissioner, before the general permit becomes effective as to such activity, and may include such other conditions as the commissioner deems appropriate, including, but not limited to, management practices and verification and reporting requirements. Any such reports shall be made available to the public by the commissioner. The commissioner shall grant an application for approval under a general permit without repeating the notice and comment procedures provided under subdivision (2) of this subsection, and such a grant shall not be subject to judicial review under subdivision (4) of this subsection. Registrations and applications for approval under the general permit shall be submitted on forms prescribed by the commissioner; application forms concerning activities regulated under the federal Clean Air Act shall require that the applicant provide such information as may be required by that act. The commissioner shall prepare, and annually amend, a list of holders of general permits under this section, which list shall be made available to the public.

(2) Notwithstanding any other procedures in this chapter, any regulations adopted thereunder, and chapter 54, the commissioner may issue a general permit in accordance with the following procedures: (A) The commissioner shall publish in a newspaper, having a substantial circulation in the affected area or areas, notice of (i) intent to issue a general permit, (ii) the right to inspect the proposed general permit, (iii) the opportunity to submit written comments thereon, and (iv) the right to a public hearing if, within the comment period, the commissioner receives a petition signed by at least twenty-five persons provided the notice shall state that the right to a public hearing may be exercised upon request of any person if the permit regulates an activity which is subject to provisions of the federal Clean Air Act; (B) the administrator of the United States Environmental Protection Agency and any states affected by the general permit shall be given notice as may be required by the federal Clean Air Act; (C) the commissioner shall allow a comment period of thirty days following publication of notice under subparagraph (A) of this subdivision during which interested persons may submit written comments concerning the permit to the commissioner; (D) the commissioner shall not issue the general permit until

after the comment period and the public hearing, if one is held; (E) the commissioner shall publish notice of any general permit issued in a newspaper having a substantial circulation in the affected area or areas; and (F) summary suspension may be ordered in accordance with subsection (c) of section 4-182. Any person may request that the commissioner issue, modify, revoke or suspend a general permit in accordance with this subsection.

(3) Any general permit under this subsection shall be issued for a fixed term. A general permit covering an activity regulated under the federal Clean Air Act shall be issued for a term of no more than five years. A general permit covering an activity regulated under the federal Clean Air Act shall contain such additional conditions as may be required by that act.

(4) Notwithstanding any other provision of this chapter and chapter 54, with respect to a general permit concerning activities regulated under the federal Clean Air Act, any person who submitted timely comments thereon may appeal the issuance of such permit to the superior court in accordance with the provisions of section 4-183. Such appeal shall have precedence in the order of trial as provided in section 52-192.

(5) Subsequent to the issuance of a general permit, the commissioner may require a person whose activity is or may be covered by the general permit to apply for and obtain an individual permit pursuant to this chapter if he determines that an individual permit would better protect the land, air and waters of the state from pollution. The commissioner may require an individual permit under this subdivision in cases including, but not limited to, the following: (A) The permittee is not in compliance with the conditions of the general permit; (B) a change has occurred in the availability of demonstrated technology or practices for the control or abatement of pollution applicable to the permitted activity; (C) circumstances have changed since the time the general permit was issued so that the permitted activity is no longer appropriately controlled under the general permit, or a temporary or permanent reduction or elimination of the permitted activity is necessary; or (D) a relevant change has occurred in the applicability of the federal Clean Air Act. In making the determination to require an individual permit, the commissioner may consider the location, character and size of the source and any other relevant factors. The commissioner may require an individual permit under this subdivision only if the person whose activity is covered by the general permit has been notified in writing that an individual permit is required. The notice shall include a brief statement of the reasons for requiring an individual permit, an application form, a statement setting a time for the person to file the application and a statement that the general permit as it applies to such person shall automatically terminate on the effective date of the individual permit. Such person shall forthwith apply for, and use best efforts to obtain, the individual permit. Any person may petition the commissioner to take action under this subdivision.

(6) The commissioner may adopt regulations, in accordance with the provisions of chapter 54, to carry out the purposes of this subsection.

(l) In any proceeding on an application for a permit which is required under 42 USC 7661a, the applicant, and any other person entitled under said section to obtain judicial review of the commissioner's final action on such application may appeal such action in accordance with the provisions of section 4-183.

(m) The commissioner shall not issue a permit for an asphalt batch plant or continuous mix facility under the provisions of this section until July 1, 2004, unless the commissioner determines that the issuance of the permit will result in an improvement of environmental performance of an existing asphalt batch plant or continuous mix plant. The provisions of this section shall apply to any application pending on May 5, 1998. Nothing in this section shall apply to applications for upgrading, replacing, consolidating or otherwise altering the physical plant of an existing facility provided such upgrade, replacement, consolidation or alteration results in an improvement of environmental performance or in reduced total emissions of air pollutants.

Attachment G

Regulatory Assessment Document

Regulatory Assessment Document

Amendment of RCSA Section 22a-174-22a-174-20(s) and
Adoption of RCSA Section 22a-174-22a-174-20(kk)

Revised November 23, 2011

Prepared by

Robin Baena
April Desclos
Merrily A. Gere

The Connecticut Department of Energy and Environmental Protection (CTDEEP) has prepared this regulatory assessment document (RAD) to explain the origin of a proposal to amend subsection (s) of section 22a-174-20 of the Regulations of Connecticut State Agencies (RCSA) and to adopt subsection (kk) of RCSA section 22a-174-20. Both subsections (s) and (kk) address emissions of volatile organic compounds (VOCs) from surface coating activities. This RAD describes the motivation for this proposal, the structure of the proposal, the design considerations pertinent to the proposal and the expected air quality benefits of the proposal.

This RAD is intended to help both CTDEEP staff and the regulated community understand what is intended by the proposal. However, if any statement in this document is found to be contrary to a final adopted regulation, the regulatory language shall control.

I. Introduction and Background

Coatings or paints used in surface coating industries are a significant source of emissions of volatile organic compounds (VOCs). In the presence of sunlight, VOCs and nitrogen oxides (NO_x) undergo a series of chemical reactions to form ozone. VOC emissions from coatings can also lead to the formation of particulate matter (PM). Ozone and PM are two of the most serious air pollutants in Connecticut. Ozone is a strong oxidizer that irritates the respiratory system, leading to a variety of adverse health effects. High ground-level ozone concentrations may also aggravate chronic lung diseases like emphysema and bronchitis, reduce the immune system's ability to fight off bacterial infections in the respiratory system, or cause permanent lung damage. Ground-level ozone also damages plant life and property. PM exposure has also been associated with a wide range of adverse health impacts, including hospitalization and premature death.

To protect people from the harmful effects of exposure to ozone and PM, the U.S. Environmental Protection Agency (EPA) has established national ambient air quality standards (NAAQS) for these pollutants. All of Connecticut is classified as nonattainment for the ozone standard because the monitored air quality does not comply with federal air quality standards, and Fairfield and New Haven counties are designated as nonattainment for fine particulate matter. For each nonattainment area, CTDEEP has developed a plan that describes how the state will attain the ambient air quality standards, which generally involves implementing a suite of

measures that will reduce direct emissions of the pollutant of concern or reduce emissions of precursor pollutants.

In February 2008, CTDEEP submitted a plan to EPA demonstrating how Connecticut would attain and maintain the 1997 8-hour ozone NAAQS. As required by Section 172(c)(1) of the Clean Air Act (CAA), Connecticut's 8-hour ozone NAAQS plan includes reasonably available control technology (RACT) requirements for emissions sources that contribute to nonattainment. EPA defines RACT as "the lowest emission limitation that a particular source is capable of meeting by the application of control technology that is reasonably available considering technological and economic feasibility" (44 FR 53761; September 17, 1979). CAA section 182(b)(2)(A) requires that for certain nonattainment areas, states revise their State Implementation Plans (SIPs) to include RACT for each category of VOC sources for which EPA has published a control techniques guideline (CTG).

In developing a CTG, EPA evaluates sources of VOC emissions, the available approaches for reducing emissions, and the cost of such approaches. Based on this information, EPA recommends a RACT level of control. States use CTG recommendations to inform their own determination as to what constitutes RACT in their particular nonattainment areas, or states may implement other approaches that are consistent with the CAA and EPA regulations to impose a level of control at least as stringent as that recommended in a CTG.

EPA published a CTG in September 2008 to provide state and local air pollution control authorities with information for determining RACT for VOC emissions from miscellaneous metal and plastic parts coating operations.¹ Connecticut is proposing revisions to section 22a-174-20 of the Regulations of Connecticut State Agencies (RCSA) to adopt a RACT level of control as established in the 2008 CTG for the miscellaneous metal and plastic parts coating category. The 2008 CTG updates a 1978 CTG addressing emissions from miscellaneous metal parts coating,² which CTDEEP first adopted as RCSA section 22a-174-20(s) in 1980 and revised in 1993 to increase compliance flexibility. CTDEEP is proposing to revise subsection (s) to include plastic parts coating and update the metal parts coating requirements. EPA includes pleasure craft coating operations within the metal and plastic parts coatings category in the 2008 CTG. Recognizing the differences in parts coating operations and pleasure craft coating, CTDEEP is proposing to address pleasure craft coating with regulatory requirements separate from those applying to metal and plastic parts coating, namely new subsection (kk) of RCSA section 22a-174-20.

II. Legal Authority & Basis

Section 22a-174(a) of the Connecticut General Statutes (CGS) authorizes the commissioner to adopt and amend air pollution control regulations for the State of Connecticut. RCSA Section 22a-174-20 has been adopted and amended under this authority for the purpose of controlling VOC emissions from identified categories of air emissions. This proposal to amend subsection (s) and adopt subsection (kk) is made under the authority of the CGS section 22a-174.

¹ EPA. Control Techniques Guideline for Miscellaneous Metal and Plastic Parts Coatings. EPA-453/R-08-0373. October 7, 2008.

² EPA. Control of Volatile Organic Emissions from Existing Stationary Sources Volume VI Surface Coating of Miscellaneous Metal Parts and Products. EPA 450/2-78-015. June 1978.

The 2008 CTG for miscellaneous metal and plastic parts coating forms the basis for the revisions proposed to subsection (s) and for new subsection (kk) of RCSA section 22a-174-20.

III. Description of Regulatory Requirements

This section describes the basic elements of proposed subsections (s) and (kk) of RCSA section 22a-174-20. Information about the considerations underlying each element is provided in Section IV.

People operating potentially regulated coating operations should keep in mind that RCSA section 22a-174-20 applies to an operation or activity regardless of the operation's status under the air quality permit programs. Operations that are below the potential emissions thresholds of RCSA section 22a-174-3a, Connecticut's new source review program regulation, may be subject to requirements under RCSA section 22a-174-20. Contrarily, an operation for which the owner has obtained a new source review permit may need to comply with RCSA section 22a-174-20. The applicability threshold for the CTG-based subsections of RCSA section 22a-174-20 is typically equivalent to three tons of potential VOC emissions per year, well below a level of potential VOC emissions that would subject the operation to the new source review program based on VOC emissions.

A. Applicability

An owner or operator who purchases 855 gallons or more of coatings and cleaning solvents in aggregate per rolling 12-month period for miscellaneous metal and plastics parts or pleasure craft coating operations must comply with amended section 22a-174-20(s) or section 22a-174-20(kk), respectively. Additionally, any owner or operator subject to section 22a-174-20(s) before January 1, 2012 must comply with either amended section 22a-174-20(s) or new section 22a-174-20(kk), as appropriate.

B. Exemptions and Exceptions

Proposed subsections (s) and (kk) both include exemptions recommended in the 2008 CTG, such as an exemption for coatings applied with a hand-held aerosol can; and an exemption for coatings applied in research and development, quality control or performance testing. Both subsections also include exemptions to delineate the interactions between the subsection and other requirements of the Connecticut air quality regulations.

Some of the exemptions in subsection (s) address the needs of particular industries. For example, General Dynamics Electric Boat provided a demonstration that the shipbuilding national emissions standards for hazardous air pollutants (NESHAP) results in an equivalent level of control as the 2008 CTG, and so CTDEEP provided an exemption for shipbuilding and repair operations subject to and operating in compliance with the shipbuilding and repair NESHAP. Pratt & Whitney and Sikorsky requested an exemption for aerospace companies based on compliance with the aerospace NESHAP. However, Pratt & Whitney and Sikorsky were not able to demonstrate that the NESHAP was as protective of air quality as the 2008 CTG, so the request for this exemption was rejected. What CTDEEP and the aerospace companies were able to agree to as an alternative approach was the addition of a set coating VOC content limits developed from the aerospace CTG.³

³ Control of Volatile Organic Compound Emissions from Coating Operations at Aerospace Manufacturing and Rework Operations. EPA-453/R-97-004. December 1997.

Both subsection (s) and subsection (kk) include exemptions that may benefit any industry. For example, both subsections allow an owner to use 55-gallons in aggregate of non-compliant coatings in a 12-month rolling period. This allows for small but necessary quantities of certain coatings to be used without those alone triggering compliance measures. Subsection (s) also allows an owner to petition the commissioner to use more than 55-gallons of noncompliant coatings, with sufficient justification for such use.

Other exemptions in subsection (s) were added in response to stakeholder input, such as an exemption for the use of coatings containing VOC at concentrations less than 1.0 percent by weight; and an exemption for the use of cleaning solvents containing VOC at concentrations less than 5.0 percent by weight. In response to a comment submitted at hearing, an exemption was added concerning coating of metal and plastic objects for maintenance of the facility. Touch up coating to fixtures and equipment used in the production process but which are not a product of the operation is not an activity subject to the requirements of subsection (s).

C. Compliance Options

Sections 22a-174-20(s) and 22a-174-20(kk) provide three primary options for controlling VOC emissions: (1) VOC content limits for each coating category based on the use of low-VOC coatings and specified application methods to achieve good transfer efficiency; (2) equivalent VOC emission rate limits based on a combination of low-VOC coatings, specified application methods, and add-on controls; or (3) an overall VOC control efficiency of 90 percent for facilities that choose to use add-on controls instead of low-VOC coatings and specified application methods. Work place practices are specified to limit unnecessary loss of VOC to the atmosphere from materials and wastes handling, leaks and spills.

While allowed in the 2008 CTG, the proposal does not include a compliance option that allows sources to limit the daily weighted average of the as-applied VOC content of all coatings in a single coating category used on a single coating unit. CTDEEP reserves the use of averaging only for sources that require an alternative compliance option through a consent order issued under RCSA section 22a-174-20(cc).

An owner or operator may also choose to control VOC emissions under sections 22a-174-20(s) and 22a-174-20(kk) by limiting, by permit or order, VOC emissions from coating and related cleaning to 1,666 pounds or less in any calendar month. An owner or operator may request a new order or a revision to an existing order at any time. To ensure approval prior to the January 1, 2013 compliance date, the request for a new order or a revision to an existing order should be submitted no later than August 1, 2012. After the compliance date, any miscellaneous metal and plastic parts coating at a facility that does not have an approved order or any coating activities subject to the revised section 20(s) that are not covered under a current order or approved revision must be conducted in compliance with subsection (s) or the facility will be in violation.

D. Record Keeping

Owners and operators of sources subject to either RCSA section 22a-174-20(s) or 22a-174-20(kk) are required to maintain monthly records based on the quantity of coatings and cleaning solvents either purchased or actually used. Sources that do not meet the applicability thresholds of either subsection are required to maintain material purchase or actual usage records to verify that the regulations do not apply to them.

E. Compliance Date

The draft sections include a compliance date of June 1, 2012. Depending on the speed with which this proposal moves towards adoption, CTDEEP intends to adjust the compliance date to follow the adoption date of the proposal, with some months for CTDEEP to engage in outreach to regulated businesses and for those regulated businesses to change practices in response to the proposal.

IV. Regulatory Approach

The process used to develop proposed subsections (s) and (kk) and significant issues addressed in the regulatory design process are set out in this section.

A. Process

CTDEEP developed subsections (s) and (kk) in an iterative drafting approach that included consultation with other divisions of CTDEEP, EPA, consultants and representative of regulated industries.

Subsection (s) of RCSA section 22a-174-20 currently regulates miscellaneous metal parts coating. Initial drafts of the proposal included only a revised version of subsection (s), revised to address metal and plastic parts coating, based on the information in the CTG. The separation of pleasure craft coating occurred later in the process in response to informal comment. The first draft of subsection (s) was prepared in December 2008. Five more drafts were prepared in 2009 based on internal review, and the draft, which included pleasure craft coating as a type of miscellaneous metal and plastic parts coating, was first provided to CTDEEP's advisory committee, SIPRAC,⁴ in February 2010.

Meetings were held with a volunteer subcommittee of SIPRAC, which subcommittee included 22 representatives of regulated industries, attorneys and environmental consultants. Staff from the Bureau of Air Management's Engineering and Enforcement Sections also attended meetings. Meetings of the full subcommittee were held in February, March, April and October 2010. A separate meeting for representatives of aerospace manufacturing and repair facilities was held in November 2010.

Consultations with and documentation from the American Coatings Association (ACA) resulted in two meetings, in June and July 2010, specific to pleasure craft coating. In addition to representatives from ACA and its member companies, representatives of the Connecticut Marine Trades Association, CTDEEP Boating Division and the Office of Long Island Sound Programs attended.

CTDEEP is particularly grateful to Bob McConnell of EPA Region 1 who provided information and expertise throughout the drafting process. Responses to our questions often required research or interactions with EPA staff at Region 1 and Headquarters, yet Mr. McConnell responded to our numerous inquiries without delay.

⁴ SIPRAC is the State Implementation Plan Revision Advisory Committee, which meets monthly in Hartford, CT. More information is available on the CTDEEP website:
http://www.ct.gov/dep/cwp/view.asp?a=2684&q=322192&depNav_GID=1619

B. Approach

A number of issues addressed during regulatory development are discussed here.

Two Sets of Requirements. One of the most significant changes in the draft regulatory requirements was the separation of pleasure craft coating from miscellaneous metal and plastic parts coating. CTDEEP chose to separate surface coating requirements for pleasure craft from section 22a-174-20(s) and promulgate the pleasure craft requirements as new section 22a-174-20(kk) because of the differences in the nature of the operations and the regulatory histories. Metal and plastic parts are typically coated on a coating line in a job shop setting, whereas pleasure craft are usually coated out-of-doors at a marina. Further, pleasure craft coating is concentrated during a few months each year, while job shops typically operate relatively constantly throughout the year. Historically, EPA and CTDEEP have had an established regulatory approach for metal parts coating, but not pleasure craft coating. EPA's regulatory approach for pleasure craft in the 2008 CTG has no federal precedent, but was developed from California district requirements.

EPA's response⁵ to the American Coatings Association (ACA) request for reconsideration of the 2008 CTG was instrumental to CTDEEP's decision to regulate the miscellaneous metal and plastic parts coating operations separate from pleasure craft coating operations. ACA had asked for EPA's reconsideration of the emissions limits as not representing RACT for the pleasure craft coating industry. ACA also asked for alternative compliance options and additional coating categories. Although EPA denied the request for reconsideration, EPA's response encouraged ACA to work with state agencies to adopt appropriate requirements and emphasized that state agencies are free to take approaches that differ from the CTG for the pleasure craft coating industry. CTDEEP understood the EPA request to provide sufficient leeway in implementation to allow for the development of specific requirements for pleasure craft coating and requirements that differ in some respects from those for parts coating.

Once In, Always In. RCSA section 22a-174-20(s) determines the applicability of an operation based on daily emissions. Exceeding the threshold even once requires an operation to continue to operate under RCSA section 22a-174-20(s) in perpetuity. EPA refers to this approach as the "once in, always in" RACT policy. CTDEEP is devising the applicability for new subsection (s) using a longer averaging time, a 12-month rolling period, as allowed by the CTG. Some owners of operations that typically are well below the new applicability on the 12-month basis were hopeful that the operation would no longer be subject to RCSA section 22a-174-20(s), given the promulgation of new emissions standards and other emissions control requirements. However, staff at EPA Region 1 confirmed that EPA remains dedicated to the "once in, always in" policy, even under a significantly altered regulation. Miscellaneous metal parts sources that are now subject to Section 20(s) must remain subject to the new version of Section 20(s), despite the broader applicability and new requirements.

Applicability. While CTDEEP historically has set the applicability for CTG-based requirements using a daily averaging period, CTDEEP finds that a 12-month rolling averaging period, which is acceptable under the CTG, is more appropriate to our current air quality needs and business environment. The longer averaging period means that only operations that typically operate

⁵ Stephen D. Paige. Control Technique Guidelines for Miscellaneous Metal and Plastic Part Coatings – Industry Request for Reconsideration. June 1, 2010.

above the threshold will be regulated. The daily averaging period resulted in an operation that had a very high level of operation for only a single day being subject to regulation, even if operations on a typical day were well below the applicability threshold. In combination with the “once in, always in” policy, a source would remain regulated for its life span based on one day of operation.

In combination with the change in the averaging period for the applicability, CTDEEP also changed the metric from actual VOC emissions to purchases of VOC-containing coatings and solvents. Materials purchased are commonly tracked, and purchase records are commonly maintained, even at very small operations, while determinations of actual emissions are difficult for less environmentally sophisticated business owners. The use of a 12-month rolling period and materials purchased to determine applicability are proposed for both subsections (s) and (kk).

Some purchased materials are not included in the total to determine applicability, namely the coatings and cleaning solvents that are listed as exempt.

Concerning applicability determinations and pleasure craft coating, the use of a 12-month period is particularly important because pleasure craft coating is typically concentrated during a few months of the year. Also, very little coating activity occurs during the ozone season, since, in Connecticut, the ozone season and boating season are coincident.

Section 22a-174-20(kk) applies to commercial pleasure craft coating activities, not to coating of a single boat by the boat owner or by the boat owner’s uncompensated agent, regardless of where the boat is located when coated. Marina and boat yard operators are not required to track the coating use and practices of storage customers when the customers perform their own coating. Coatings and cleaning solvents purchased for noncommercial application by marina customers are not included in the total gallons of coatings and solvents used by a marina owner or operator to determine the applicability of section 22a-174-20(kk).

Related Cleaning. The CTG recommends that a state should regulate coating and related cleaning. Discussions with our stakeholders made it evident that a definition of “related cleaning” was necessary to understand what to include for both the limitations to 1,666 pounds of VOC per month and applicability determinations. Related cleaning includes booth cleaning, cleaning of parts at the point of coating, cleaning of equipment to prevent cross-contamination and cleaning of uncured coatings from tools and work areas. Related cleaning does not include janitorial cleaning, routine maintenance cleaning or cleaning of parts subject to a distinct set of requirements in RCSA section 22a-174-20 or another regulation.

CTDEEP added a definition of “related cleaning” to subsection (s) and subsection (kk) to make its intent clear. For example, the definition added to subsection (s) is as follows:

“Related cleaning” means the removal of uncured coatings, coating residue and contaminants from:

- (i) miscellaneous metal and plastic parts prior to the application of coatings;
- (ii) miscellaneous metal and plastic parts between coating applications; or

- (iii) transfer lines, storage tanks, spray booths, and coating application equipment;

Regulatory Interactions. The requirements of RCSA section 22a-174-20 apply regardless of obligations on the owner to obtain a permit. An owner subject to the requirements of RCSA section 22a-174-20 should also verify the applicability of RCSA section 22a-174-3a, the new source review program regulation, to the operation, particularly for a new or modified operation.

Similarly, RCSA section 22a-174-20 addresses VOC emissions, but emissions of other pollutants from the coating operation may be subject to other state requirements. A good example of such a situation is the possibility for the requirements of RCSA section 22a-174-18 to apply to pleasure craft coating or sandblasting. If an owner sandblasts a pleasure craft or applies coatings by spray application, the particulate matter and visible emissions standards of RCSA section 22a-174-18 apply.

The possibility of overlapping applicability requirements between subsection (s) and other subsections in RCSA section 22a-174-20 is addressed in a number of exemptions. The result of the exemptions in proposed subsection (s) and exemptions elsewhere in RCSA section 22a-174-20 is that any operation or activity is subject to a single set of requirements.

Two other subsections deserve mention in terms of how they interact with solvent cleaning conducted in relation to metal and plastic parts coating. EPA intends that general cleaning related to miscellaneous metal and plastic parts coating should only be subject to the metal and plastic parts coating CTG-based requirements and should be exempt from requirements for industrial cleaning set out in a separate CTG.⁶ RCSA section 22a-174-20(ii) includes an exemption for cleaning conducted under RCSA section 22a-174-20(s). No similar exemption is included in RCSA section 22a-174-20(jj), which regulates spray gun cleaning. As RCSA section 22a-174-20(s) does not specifically regulate spray gun cleaning, required compliance with subsection (jj) is appropriate. However, if emissions from spray gun cleaning are controlled as required under the options provided in subsection (jj), those emissions would not be included in the applicability determination for subsection (s).

Concerning federal regulations that may apply to pleasure craft coating, ACA suggested that EPA would soon be proposing a NESHAP for pleasure craft coating. EPA has advised us that no such NESHAP is imminent. The NESHAP for paint stripping and miscellaneous surface coating operations at area sources under 40 CFR 63 subpart HHHHHH has limited applicability to pleasure craft coating sources. Paint stripping activities that are subject to the NESHAP are not regulated under the proposal. Sources in Connecticut typically coat pleasure craft using hand application methods, not spray application which is regulated by subpart HHHHHH, so the NESHAP is likely of little consequence to sources subject to RCSA section 22a-174-20(kk).

Military specification coatings. Regulated industry representatives commented that military specification coating category is unnecessary and should be eliminated, since each coating that might meet the definition of military specification coating also meets a definition for a functional coating category. The functional coating category VOC content limits are generally the same as the military specification coating limits, although a few are higher and a few are lower. Given that the quantity of military specification coating used in the state is small, CTDEEP concluded

⁶ Control Techniques Guidelines: Industrial Cleaning Solvents. September 2006. EPA 453/R-06-001.

that maintaining the separate military specification category would not provide a significant air quality benefit and would hinder compliance determinations by both regulated stakeholders and CTDEEP staff. Therefore, the Department deleted the military specification category.

VOC Content Limits for Pleasure Craft Coatings. The pleasure craft coating VOC content limits for Extreme High Gloss Topcoat, Other Substrate Antifoulant Coating, and Antifouling Sealer/Tie Coating are less stringent than recommended in the CTG.

CTDEEP chose to reduce the VOC content limits on recommendation and information supplied by the American Coatings Association (ACA) during the preparation of the proposal. ACA explained that EPA did not fully consider pleasure craft coating throughout the CTG development process and did not have key information concerning the VOC content limits for the three coating categories noted. ACA also commented that the experience of the South Coast Air Quality Management District (SCAQMD) demonstrates that the CTG limits, which were taken directly from SCAQMD Rule 1106.1, are not practical. For example, the “other substrate antifoulant coating” category was recommended for a VOC content limit of 330g/L, even though the Shipbuilding and Repair NESHAP and SCAQMD Marine Rule 1106 require a VOC content limit of 400 g/L for antifoulant coatings. Also, antifoulant coatings with a VOC content below 400 g/L require more applications than the higher VOC content coatings, potentially resulting in more environmental detriment overall given the nature of antifouling coatings.

For finish primer/surface, CTDEEP provides an interim VOC content limit of 600 g/L before moving to a 420 g/L standard in 2016, in recognition that commercially available coatings in this category do not yet deliver the quality of finish expected, but are rapidly improving.

CTDEEP also added a new category for pleasure craft coating, antifouling sealer/tie coat, with a VOC content limit of 420g/L.

V. Connecticut Source Inventory

Because many of the sources regulated by this proposal are below Connecticut’s permitting thresholds, there is a significant degree of uncertainty in determining the number of sources impacted in either the parts coating or pleasure craft coating categories.

A. Miscellaneous Metal and Plastic Parts Category

The miscellaneous metal and plastic parts source category includes metal and plastic components of 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, recreational boats, extruded aluminum structural components, railroad cars, lawn and garden equipment, business machines, laboratory and medical equipment, electronic equipment, steel drums, metal pipes and small appliances. Because this source category includes such a diverse group of facilities, estimating the number of affected facilities in the state with any certainty is difficult.

Although EPA in the 2008 CTG provides a list of North American Industry Classification System (NAICS) codes that includes all potentially regulated industrial categories, the collection of sources in the identified categories includes operations that do not conduct regulated coating. Obtaining an accurate estimate of the number of regulated facilities using NAICS codes is also

confounded because a single source may be counted multiple times if the source engages in activities in several NAICS categories.

CTDEEP used EPA's list of NAICS codes for potentially regulated sources to search the U.S. Census Bureau's 2007 economic data and identified 361 small businesses in Connecticut as potentially impacted by the proposed amendments. By comparison, EPA estimates that the CTG requirements apply to 1,296 facilities nationwide. CTDEEP's estimate of 361 potentially impacted small businesses is a large proportion of EPA's estimate, suggesting that one or both estimates are not accurate. The 2007 Connecticut Emission Inventory includes 125 potentially affected facilities. Some of those facilities, however, are minor sources with emissions below the applicability threshold of RCSA section 22a-174-20(s), as revised based on the 2008 CTG.

B. Pleasure Craft Category

The number of boat building and repair facilities in Connecticut that may be subject to the requirements is also difficult to estimate. According to the U.S. Census Bureau's 2007 economic data, there are only 10 businesses in Connecticut in the boat building category and another eight businesses in the shipbuilding and repair category. CTDEEP believes that this is a significant underestimate of the number affected sources. The Connecticut Marine Trade Association, for example, lists about 240 entities in Connecticut that appear to be marinas, boat yards or boat dealers, some of which conduct boat coating and repair as a secondary part of their business. Any such facility that engages in commercial boat coating or re-coating would be subject to the requirements of proposed RCSA section 22a-174-20(kk).

VI. Economic and Small Business Impact

The anticipated financial impact of the proposal on businesses ranges from a minimal savings to moderate costs. EPA estimates the costs of compliance for miscellaneous metal and plastic parts coating operations to be \$10,500 per facility. The actual cost of compliance at many facilities is, however, expected to be lower. EPA did not account for the anticipated net savings potential as a result of the mandated work practices and application methods that reduce coating and solvent usage by decreasing waste and evaporation, thereby reducing material purchase costs.

Furthermore, EPA's cost estimate was made without regard for facility size or type of operation and has its basis in the compliance costs for a rule designed to control hazardous air emissions, not VOCs. California and several other states currently have similar coating VOC content limits requirements in place. Compliant metal and plastic parts coatings are reported to be available at a cost that is not significantly greater than the cost of traditional, high-VOC coatings. However, information provided by pleasure craft coating suppliers suggests that an increase of about 40 percent can be expected.

The proposal also includes provisions that reduce the administrative burden on businesses. For example, applicability is determined based on coatings and solvents purchased. Since purchases are typically tracked and recorded, even in the smallest business, the applicability determination is easily made. Reporting is only required on request, thereby reducing the administrative costs.

For pleasure craft coating operations, the use of a 12-month rolling average of materials purchased to determine applicability, plus the availability of an alternative compliance option for operations with actual emissions of less than 1666 pounds of VOC in any calendar month, provides coating operation with several compliance options.

Exemptions from coating VOC limits, application methods, and work-practice requirements are included in both proposed subsections to address special circumstances and reduce the regulatory burden on small businesses. Further, several compliance options are provided so that business owners and operators have the flexibility to choose the VOC control method most suitable for their operating needs.

VII. Air Quality Impact

The VOC emissions from miscellaneous metal product and plastic part and pleasure craft surface coating result from the evaporation of the volatile components of the coatings and cleaning materials used in these operations. Essentially all the VOCs contained in a coating evaporate. Therefore, lowering the VOC content of coatings and improving coating efficiency directly lowers VOC emissions.

EPA estimates that decreasing the allowable VOC content for coatings and cleaning materials will reduce VOC emissions from miscellaneous metal and plastic part (including pleasure craft) coatings by about 35 percent. In analyzing potential reductions, EPA assumed that all facilities will choose to utilize the low-VOC coating materials option because low-VOC coating materials are already widely available at a cost that is not significantly greater than the cost of coating materials with higher VOC contents. Also, the use of add-on controls to reduce emissions from typical spray coating operations is a more costly option.

The 125 potentially affected facilities included in the 2007 Connecticut Emission Inventory had total reported annual VOC emissions of approximately 640 tons. Many of the small sources are not required to report their emissions on a regular basis, so the inventory may not accurately quantify current emissions. Additionally, many of these small sources are not subject to these amendments because their emissions are below the applicability threshold. Assuming all emissions recorded in the 2007 inventory are subject to the proposed regulations, and using EPA's estimate of a 35 percent reduction in emissions, a 220 ton per year reduction in VOC emissions would result from implementing the proposed requirements. Alternatively, if fewer emissions are subject to the proposal, and again assuming a 35% reduction, proportionally lower emissions reductions would be obtained as shown in the table below:

% of 2007 reported emissions subject to rule	emissions reductions (tons/year)
100%	220
90%	200
80%	180
70%	160
60%	130
50%	110