



Connecticut
Department of
ENERGY &
ENVIRONMENT

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
3. Corine Hellerman
Core EHS, Air Compliance
Sikorsky Aircraft Corp.
6900 Main Street, M/S 201A
Stratford, CT 06675-9129

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.

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.**
 - (iv)

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 RCOSA 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. RSCA 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** 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.

~~(C)~~**(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 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.

~~(C)~~**(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 (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
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:
- (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 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;
- (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;
- (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 “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;
- (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;
- (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;

(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

(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;

(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;

(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;
- (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;

(EEEE) “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;

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

(GGGG) “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;

(HHHH) “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;

- (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;
- (KKKK) “Thermal control coating” means a coating formulated with specific thermal conductive or radiative properties to permit temperature control of the substrate;
- (LLLL) “Touch-up coating” means a coating used to cover minor coating imperfections appearing after the main coating operation;
- (MMMM) “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;
- (NNNN) “Translucent coating” means a coating which contains binders and pigment and is formulated to form a colored, but not opaque, film;
- (OOOO) “Vacuum-metalizing coating” means an undercoat applied to a substrate on which metal is deposited or an overcoat applied directly to a metal film;
- (PPPP) “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
- (QQQQ) “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

(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:

(E) 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.

(F) 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.

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

(H) 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 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.
 - (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:
 - (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.

(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.

(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:

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

- 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.
- (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
- (C) 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>

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-basecoat/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>Basecoat</u>	<u>600</u>	<u>5.0</u>
<u>Clearcoat</u>	<u>540</u>	<u>4.5</u>
<u>Non-basecoat/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>

Table 20(s)-4		
Business Machine Plastic Parts Coating VOC Content Limits		
<u>Coating Category</u>	<u>g VOC/liter coating</u>	<u>lbs VOC/gal coating</u>
<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		
<u>Coating Category</u>	<u>g VOC/liter coating</u>	<u>lbs VOC/gal coating</u>
<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	
<u>Coating type</u>	<u>g VOC/liter coating</u>
<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>

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>
<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				
<u>Coating Category</u>	<u>Air Dried</u>		<u>Baked</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>

**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-basecoat/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>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>

<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) 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,
 - (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 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.
- (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:
- (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:

(F) Use only coatings that have an as applied VOC content no greater than the applicable level in Table 20(kk)-1.

(G) 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.

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

(I) 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.

(J) 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
 - (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.
- (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:

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

- 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 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.

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, 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

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 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.

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

Available in the Regulation and Certification Page file