Connecticut Department of
ENERGY &
ENVIRONMENTAL
PROTECTION

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March 13, 2013

David Conroy, Chief
Air Programs Branch
EPA Region I
5 Post Office Square - Suite 100
Mail Code OEP05-02
Boston, MA 02109-3912

Dear Mr. Conroy,

On April 29, 2010, the Connecticut Department of Energy and Environmental Protection (DEEP) submitted a revision to the State Implementation Plan (SIP) concerning controls for volatile organic compounds (VOC). The revision included a version of section 22a-174-20 of the Regulations of Connecticut State Agencies (RCSA), which had been revised based on control technique guidelines issued in 2006.

DEEP would like to modify that submittal by withdrawing certain provisions in RCSA section 22a-174-20 from consideration as part of the SIP. Specifically, DEEP is requesting that EPA withdraw:

1) The phrase "or other method approved by the commissioner" from the definition of "as-applied VOC content" as set out in subsections (ff)(1)(K), (gg)(1)(O), (hh)(1)(CC), (ii)(1)(I) and (jj)(1)(H);

2) The phrase "or alternate method as approved by the commissioner" where that phrase appears in subsections (ff)(5)(B)(vi), (gg)(7)(B)(vi), (hh)(7)(B)(vi), (ii)(6)(B)(vi) and (jj)(6)(B)(vii); and

3) Subparagraph (D) of subsection (jj)(3).

A copy of subsections (ff), (gg), (hh), (ii) and (jj) of RCSA section 22a-174-20 with the withdrawn phrases indicated in strikethrough font is attached as Attachment A.

If you have any questions, please contact Merrily Gere of my staff at (860) 424-3416.

Sincerely yours,

Anne R. Gobin
Chief, Bureau of Air Management

cc: Anne Arnold, EPA Region 1
David Mackintosh, EPA Region 1

ATTACHMENT A

Subsections (ff), (gg), (hh), (ii) and (jj) of section 22a-174-20 of the Regulations of Connecticut State Agencies (RCSA) are set out below. The identified subsections of RCSA section 22a-174-20 were submitted to EPA for approval on April 29, 2010. DEEP is now requesting that EPA withdraw from consideration as part of the State Implementation Plan those provisions in strikethrough font.

(ff) Flexible package printing.

(1) Definitions. For the purpose of this subsection:

(A) "Capture efficiency" means the ratio of VOC emissions delivered to the control device to the total VOC emissions resulting from operation of a flexible package printing press and related cleaning, expressed as a percentage;

(B) "Cleaning" means, with respect to a flexible package printing press or presses, cleaning of a press or press parts or the removal of dried ink from areas around the press. "Cleaning" does not include cleaning of electronic components, cleaning in platemaking or binding operations, housekeeping activity near a press or the use of a parts washer or cold cleaner;

(C) "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;

(D) "Flexible package" means any package or part of a package the shape of which may be readily changed. A "flexible package" includes any bag, pouch, liner or wrap made of paper, plastic, film, aluminum foil, or metalized or coated film or paper, alone or in combination. "Flexible package" does not include any folding carton, self-adhesive labels, gift wrap, wall covering, vinyl products, decorative laminates, floor coverings or tissue products;

(E) "Flexographic print station" means a work station on which a flexographic printing operation is conducted, which includes a flexographic printing plate and an image carrier made of rubber or other elastomeric material and where the image to be printed is raised above the printing plate;

(F) "Installation date" means an unchanging date that is the first date on which a piece of equipment is in place and prepared to operate;

(G) "Overall control efficiency" means the product of the capture efficiency and the control device efficiency;

(H) "Press" means a printing production assembly that is composed of one or more work stations, one or more of which is a flexographic or rotogravure print station, and that produces a printed product;

(I) "Rotogravure print station" means a work station on which a rotogravure printing operation is conducted. A rotogravure print station includes a cylinder and ink supply, and the image to be printed is etched or engraved below the surface of the cylinder;

(J) "Work station" means a unit on a press where material is deposited onto a substrate; and

(K) "As-applied VOC content" means the VOC content of an ink, coating, adhesive or cleaning solvent at the time of application to a substrate, including any solvent, catalyst or other substance added to the as-supplied ink, coating, adhesive or cleaning solvent. "As-applied VOC content" is determined using an EPA reference method, a California Air Resources Board reference method ~~or other method approved by the commissioner~~.

(2) Applicability.

(A) The provisions of this subsection apply to the owner or operator of any flexible package printing press who purchases for the printing operation at least 855 gallons of coatings, adhesives, cleaning solvents and solvent-based inks in aggregate per any rolling 12-month period. Any owner or operator of a flexible package printing press shall:

(i) Comply with the requirements of this subsection no later than January 1, 2011, and

(ii) Remain subject to this subsection; and

(B) Any flexible package printing press operated pursuant to this subsection shall not be subject to subsection (v) of this section.

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

(A) New and used VOC-containing ink, coating, adhesive or cleaning solvent, including ink or 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 ink, coating, adhesive or cleaning solvent shall be minimized. Any leaked or spilled VOC-containing ink, coating or cleaning solvent shall be absorbed and removed immediately;

(C) Absorbent applicators, such as cloth and paper, which are moistened with VOC-containing ink, coating, adhesive or solvent, shall be stored in a closed, nonabsorbent, non-leaking container for disposal or recycling; and

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

(4) Additional requirements. The owner or operator of a flexible package printing press that has the potential to emit from the dryer, prior to controls, of at least 25 tons per year of VOC from the use of inks, coatings and adhesives combined shall, in addition to complying with the requirements of subdivision (3) of this subsection, use one of the following methods to control VOC emissions from such a press:

(A) Use only individual inks, coatings and adhesives with an as-applied VOC content that does not exceed 0.8 kg VOC/kg of solids (0.8 lb VOC/lb of solids) or 0.16 kg VOC/kg of materials (0.16 lb VOC/lb of materials);

(B) Use only inks, coatings and adhesives so that the daily weighted average of the VOC content of the inks, coatings and adhesives used in a single printing line does not exceed 0.8 kg VOC/kg of solids (0.8 lb VOC/lb of solids) or 0.16 kg VOC/kg of materials (0.16 lb VOC/lb of materials); or

(C) Install, operate and maintain in accordance with the manufacturer's recommendations, a capture and a control device that produce the overall control efficiency identified in Table 20(ff)-1, according to the date of installation of the press being controlled and the installation date of the air pollution control equipment.

(5) Records.

(A) An owner or operator of any flexible package printing press shall maintain records of 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 of a flexible package printing press shall maintain daily records of all inks, coatings, adhesives or cleaning solvents used, as follows:

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

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

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

(iv) The amount of each ink, coating, adhesive or cleaning solvent,

(v) A Material Safety Data Sheet for each ink, coating, adhesive or 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 flexible package printing press who is not otherwise subject to the provisions of this subsection shall maintain material purchase records to verify that the provisions of this subsection do not apply to such owner or operator.

Table 20(ff)-1. Overall control efficiency levels

Installation date of press	***Installation date of the air pollution control device***	***Overall control efficiency (%)***
Prior to March 14, 1995	Prior to January 1, 2011	65
Prior to March 14, 1995	On or after January 1, 2011	70
On or after March 14, 1995	Prior to January 1, 2011	75
On or after March 14, 1995	On or after January 1, 2011	80

(gg) Offset lithographic printing and letterpress printing

(1) Definitions. For the purpose of this subsection:

(A) "Capture efficiency" means the ratio of VOC emissions delivered to the control device to the total VOC emissions resulting from offset lithographic or letterpress printing and related cleaning, expressed as a percentage;

(B) "Cleaning solvent" means a VOC-containing liquid used to remove ink and debris from the operating surfaces of the printing press and its parts;

(C) "Coldset" or "non-heatset" means a printing process in which the ink dries on the substrate through ordinary evaporation and absorption;

(D) "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;

(E) "Fountain solution" means, with respect to offset lithographic printing, a water-based solution that contains small amounts of gum Arabic or synthetic resins, acids, buffer salts and a wetting agent or dampening aid applied to the image plate to reduce the surface tension of the solution;

(F) "Heatset" means a printing process in which ink is set by the evaporation of ink solvents or oils in a hot air dryer;

(G) "Letterpress printing" means a printing process in which the image area is raised relative to the non-image area, and the paste ink is transferred to the substrate directly from the image surface;

(H) "Lithographic printing" means a printing process in which the image and non-image areas are chemically differentiated, *i.e.*, the image area is oil receptive and the non-image area is water receptive;

(I) "Offset lithographic printing" means a type of lithographic printing in which an ink film is applied to a lithographic plate and then transferred to an intermediary surface or blanket, and the image on the blanket is then transferred to a substrate, typically paper or paperboard;

(J) "Overall control efficiency" means the product of the capture efficiency and the control device efficiency;

(K) "Press" means a printing production assembly composed of one or more units used to produce a printed substrate including any associated coating, spray powder application or infrared heating units;

(L) "Sheet-fed printing" means, with respect to offset lithographic printing, a process in which individual sheets of paper or other substrate are fed to the press;

(M) "VOC composite partial vapor pressure" means the sum of the partial pressure of the compounds defined as VOCs;

(N) "Web printing" means, with respect to offset lithographic printing, a process where continuous rolls of substrate material are fed to the press and rewound or cut to size after printing; and

(O) "As-applied VOC content" means the VOC content of cleaning solvent, fountain solution or solvent-based ink at the time of application to a substrate, including any solvent, catalyst or other substance added to the as-supplied cleaning solvent, fountain solution or solvent-based ink. "As-applied VOC content" is determined using an EPA reference method, a California Air Resources Board reference method ~~or other method approved by the commissioner~~.

(2) Applicability. The provisions of this subsection apply to the owner or operator of any offset lithographic or letterpress printing press who purchases for the printing operation at least 855 gallons of cleaning solvents, fountain solution additives and solvent-based inks in aggregate per any rolling 12-month period. Any owner or operator of an offset lithographic or a letterpress printing press shall:

(A) Comply with the requirements of this subsection no later than January 1, 2011; and

(B) Remain subject to this subsection.

(3) Fountain solutions.

(A) The owner or operator of a heatset web offset lithographic printing press with a fountain solution reservoir of at least one gallon in capacity shall:

(i) Limit the as-applied VOC content of the fountain solution to 1.6% by weight or less,

(ii) If the fountain solution is refrigerated to below 60°F, limit the as-applied VOC content of the fountain solution to 3% by weight or less, or

(iii) Use fountain solution that contains no alcohol and limit the alcohol substitute content of the fountain solution to 5% by weight or less.

(B) The owner of a sheet-fed offset lithographic printing press with a minimum sheet size of greater than 11x17 inches and a fountain solution reservoir greater than one gallon in capacity shall:

(i) Limit the as-applied VOC content of the fountain solution to 5% by weight or less,

(ii) If the fountain solution is refrigerated to below 60°F, limit the as-applied VOC content of the fountain solution to 8.5% or less, or

(iii) Use fountain solution that contains no alcohol and limit the alcohol substitute content of the fountain solution to 5% by weight or less.

(C) The owner of a coldset web offset lithographic printing press with a fountain solution reservoir of at least one gallon in capacity shall use a fountain solution that contains no alcohol and that has an alcohol substitute content of 5% by weight or less.

(4) Heatset web offset lithographic printing or heatset letterpress printing. Except heatset presses for book printing or heatset presses with a web width of 22 inches or less, the owner or operator of a heatset web offset lithographic or heatset letterpress printing press with the

potential to emit at least 25 tons per year of VOC emissions from all dryers, prior to controls, shall operate air pollution control equipment to:

(A) Achieve a 90% overall control efficiency if the air pollution control equipment is installed prior to January 1, 2011;

(B) Achieve a 95% overall control efficiency if the air pollution control equipment is installed on or after January 1, 2011; or

(C) Reduce the control device outlet concentration to 20 parts per million as hexane on a dry basis if the inlet VOC concentration is so low that the control efficiency specified in subparagraph (A) or (B) of this subdivision cannot be achieved.

(5) Cleaning solvents. The owner or operator of an offset lithographic printing press or letterpress printing press:

(A) Shall use cleaning solvents that:

(i) Have composite vapor pressure less than 10 mmHg at 20°C, or

(ii) Have a VOC content less than 70% by weight.

(B) May in any twelve-month period use no more than 110 gallons of cleaning solvent that does not comply with subparagraph (A) of this subdivision.

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

(A) New and used VOC-containing ink, fountain solution and cleaning solvent, including solvents 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 ink, fountain solution and cleaning solvent shall be minimized. Any leaked or spilled VOC-containing ink, fountain solution or cleaning solvent shall be absorbed and removed immediately;

(C) Absorbent applicators, such as cloth and paper, which are moistened with VOC-containing ink, fountain solution or cleaning solvent, shall be stored in a closed, nonabsorbent, non-leaking container for disposal or recycling; and

(D) VOC-containing ink, fountain solution and cleaning solvents shall be conveyed from one location to another in a closed container or pipe.

(7) Records.

(A) An owner or operator of any offset lithographic or letterpress printing press shall maintain records of the information described in subparagraph (B) of this subdivision. 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 of an offset lithographic or a letterpress printing press shall maintain daily records of all cleaning solvents, fountain solution additives or solvent-based inks used, as follows:

(i) Name and description of each cleaning solvent, fountain solution additive or solvent-based ink,

(ii) VOC content of each cleaning solvent, fountain solution additive or solvent-based ink, as-applied, and the associated calculations,

(iii) VOC content of each cleaning solvent, fountain solution additive or solvent-based ink, as supplied,

(iv) The amount of each cleaning solvent, fountain solution additive or solvent-based ink,

(v) A Material Safety Data Sheet for each cleaning solvent, fountain solution additive or solvent-based ink,

(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 offset lithographic or letterpress printing press who is not otherwise subject to the provisions of this subsection shall maintain material purchase records to verify that the provisions of this subsection do not apply to such owner or operator.

(hh) Large appliance coatings.

(1) Definitions. For the purpose of this subsection:

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

(B) "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 as supplied by the manufacturer;

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

(D) "Capture efficiency" means the ratio of VOC emissions delivered to control device to the total VOC emissions resulting from large appliance coating and related cleaning, expressed as a percentage;

(E) "Cleaning solvent" means any VOC-containing liquid used in cleaning a large appliance coating operation;

(F) "Coating" means a material that is applied to a surface and that forms a continuous film in order to beautify or protect such surface;

(G) "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, including any drying area or oven where a coating is applied, dried or cured prior to any subsequent application of a different coating. A "coating unit" does not include any point other than the point where the coating is dried or cured;

(H) "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;

(I) "Dip coating" means a method of applying a coating to a surface by submersion into and removal from a coating bath;

(J) "Electrostatic application" means a method of applying coating particles or coating droplets to a grounded surface by electrically charging such particles or droplets;

(K) "Extreme high gloss coating" means a coating that, when tested by the most recent active version of the American Society for Testing Material Test Method D523, shows a reflectance of 75 or more on a 60 degree meter;

(L) "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 121.1°C (250°F), or

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

(M) "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;

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

(O) "HVLP spray application" means to apply a coating using a high-volume, low-pressure application system that is designed to operate at air pressures between 0.1 and 10 pounds per square inch gauge, measured dynamically at the center of the air cap and the air horns;

(P) "Large appliance coating" means the application of a coating to a large appliance part or product during manufacture;

(Q) "Large appliance part" means any surface-coated metal lid, door, casing, panel or other interior or exterior metal part or accessory that is assembled to form a large appliance product;

(R) "Large appliance product" means any surface-coated large appliance including, but not limited to, a metal range, oven, microwave oven, refrigerator, freezer, washer, dryer, dishwasher, water heater or trash compactor manufactured for household, commercial or recreational use;

(S) "Metallic coating" means a coating that contains more than five grams of metal particle per liter of coating, as-applied;

(T) "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;

(U) "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;

(V) "Overall control efficiency" means the product of the capture efficiency and the control device efficiency;

(W) "Pretreatment coating" means a coating, containing no more than 12% solids by weight and at least one-half percent acid by weight, applied directly to metal surfaces to provide surface etching, adhesion and ease when stripping;

(X) "Repair coating" means a coating used to recoat portions of a product that has sustained mechanical damage to the coating following normal painting operations;

(Y) "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;

(Z) "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;

(AA) "Solar-absorbent coating" means a coating which has, as its primary purpose, the absorption of solar radiation;

(BB) "Touch-up coating" means a coating used to cover minor coating imperfections appearing after the main coating operation; and

(CC) "As-applied VOC content" means the VOC content of cleaning solvent or coating at the time of application to a substrate, including any solvent, catalyst or other substance added to the as-supplied cleaning solvent or coating. "As-applied VOC content" is determined using an EPA reference method, a California Air Resources Board reference method ~~or other method approved by the commissioner~~.

(2) Applicability. Except as provided in subdivision (3) of this subsection, the provisions of this subsection apply to an owner or operator of any large appliance coating unit who purchases for the coating operation at least 855 gallons of coatings and cleaning solvents in aggregate per any rolling 12-month period. Any such owner or operator shall:

(A) Comply with the requirements of this subsection no later than January 1, 2011; and

(B) Remain subject to this subsection.

(3) Exemptions and exceptions.

(A) The requirements of subdivision (5) of this subsection shall not apply to the following:

(i) Stencil coating,

(ii) Safety-indicating coating, as defined in subdivision (1) of subsection (p) of this section,

(iii) Solid-film lubricant, as defined in subdivision (1) of subsection (p) of this section,

(iv) Electric-insulating and thermal-conducting coating, as defined in subdivision (1) of subsection (p) of this section,

(v) Touch-up coating,

(vi) Repair coating, or

(vii) Coating applied with a hand-held aerosol can.

(B) The requirements of subdivision (4) of this subsection shall not apply to a person using air pollution control equipment, as specified in subdivision (5)(B) of this subsection, to comply with the requirements of this subsection.

(4) Application methods. A person shall not apply a VOC-containing coating to any large appliance part or product unless the coating is applied by one of the following methods 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) Hand application; or

(G) 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) Compliance options. Except as provided in subdivision (3) of this subsection, on and after January 2011, no owner or operator conducting large appliance coating shall apply any coating, inclusive of any VOC-containing materials added to the original coating supplied by the manufacturer, unless the owner or operator uses one of the following methods to control emissions of VOCs:

(A) Use only coatings with an as-applied VOC content no greater than the levels specified in Table 20(hh)-1, according to coating category and drying method, where:

(i) The VOC content limits of Table 20(hh)-1 apply to the volume of coating as-applied, less water and less exempt VOC, and

(ii) The VOC content limits of Table 20(hh)-1 may be met by averaging the VOC content of materials used on a single large appliance coating unit per a single day;

(B) Install, operate and maintain in accordance with the manufacturer's recommendations, a capture and a control device that produce an overall control efficiency of 90%; or

(C) With the approval of the commissioner and the EPA Administrator, use an alternative means to achieve a level of control equivalent to that required in subparagraph (A) or (B) of this subdivision. An owner or operator shall submit a request to the commissioner and the EPA Administrator to use an alternative means of compliance, and such request shall include:

(i) A description of the method,

(ii) A demonstration of the level of emissions control achieved, and

(iii) Any other information requested by the commissioner or the EPA Administrator.

(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 absorbed and removed immediately;

(C) Absorbent applicators, such as cloth and paper, which are moistened with a VOC-containing coating or cleaning 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.

Table 20(hh)-1. As-Applied VOC Content Limits Per Volume of Coating (Excluding Water and Exempt VOCs) per Coating Category, Specific to the Drying Process

Coating Category	Baked		Air Dried	
	g/L	lb/gal	g/L	lb/gal
General, one component	275	2.3	275	2.3

General, multi-component	275	2.3	340	2.8
Extreme high gloss	360	3.0	340	2.8
Extreme performance	360	3.0	420	3.5
Heat-resistant	360	3.0	420	3.5
Metallic	420	3.5	420	3.5
Pretreatment	420	3.5	420	3.5
Solar-absorbent	360	3.0	420	3.5

(7) Records.

(A) An owner or operator of any large appliance coating unit shall maintain records of the information described in subparagraph (B) of this subdivision. 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 of a large appliance coating unit shall maintain daily records of all coatings and cleaning solvents used, as follows:

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

(ii) VOC content of each coating or 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 or cleaning solvent,

(v) A Material Safety Data Sheet for each coating or 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 large appliance coating unit who is not otherwise subject to the provisions of this subsection shall maintain material purchase records to verify that the provisions of this subsection do not apply to such owner or operator.

(ii) Industrial solvent cleaning.

(1) Definitions. For the purpose of this subsection:

(A) "Capture efficiency" means the ratio of VOC emissions delivered to the control device to the total VOC emissions resulting from industrial solvent cleaning, expressed as a percentage;

(B) "Cleaning solvent" means any VOC-containing liquid, including a liquid impregnated wipe or towelette, used in cleaning;

(C) "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;

(D) "Industrial solvent cleaning" means the use of cleaning solvent to remove uncured adhesives, uncured inks, uncured coatings or contaminants such as dirt, soil or grease from parts, products, tools, machinery, equipment or work areas, where such parts, products, tools, machinery, equipment and work areas are incorporated into or used exclusively in manufacturing a product. "Industrial solvent cleaning" includes spray booth cleaning, cleaning of manufactured components, parts cleaning, cleaning of production equipment for maintenance or to prohibit cross-contamination, and cleaning of tanks, mixing pots, process vessels and lines. "Industrial solvent cleaning" does not include the cleaning of personal protection equipment, such as respirators.

(E) "Janitorial cleaning" means general and maintenance cleaning of building or facility components including, but not limited to, floors, ceilings, walls, windows, doors, stairs, restrooms, furnishings, kitchens and exterior surfaces of office equipment. "Janitorial cleaning" includes graffiti removal. "Janitorial cleaning" does not include the cleaning of parts, products or equipment, where such parts, products or equipment are incorporated into or used exclusively in manufacturing a product. "Janitorial cleaning" excludes the cleaning of work areas, such as laboratory benches, where manufacturing or repair activity is performed;

(F) "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;

(G) "Overall control efficiency" means the product of the capture efficiency and the control device efficiency;

(H) "Screen printing" means a method of creating an image by pressing ink through a screen or fabric to which a stencil has been applied and where the stencil openings determine the form and dimensions of the image; and

(I) "As-applied VOC content" means the VOC content of a cleaning solvent at the time of use, including any solvent, catalyst or other substance added to the as-supplied cleaning solvent. "As-applied VOC content" is determined using an EPA reference method, a California Air Resources Board reference method ~~or other method approved by the commissioner~~.

(2) Applicability. Except as provided in subdivision (3) of this subsection, the provisions of this subsection apply to an owner or operator of any premises who purchases for use at the premises at least 855 gallons of cleaning solvents in aggregate per rolling 12-month period. Any owner or operator of such a premises shall:

(A) Comply with the requirements of this subsection no later than January 1, 2011; and

(B) Remain subject to this subsection.

(3) Exemptions and exceptions.

(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,

(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 EPA Administrator. Any request for approval shall be made in writing to the commissioner and EPA 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.

(B) The requirements of subdivisions (4) and (6) of this subsection shall not apply to the use of cleaning solvent in a digital printing operation, where digital printing means a method of printing in which an electronic output device transfers variable data, in the form of an image, from a computer to a substrate.

(C) The limitations of subdivision (4)(A) of this subsection shall not apply to cleaning solvent used to clean screen printing equipment, if the cleaning solvent used has

an as-applied VOC content that does not exceed 500 grams per liter (4.2 pounds per gallon).

(4) Control of emissions. Except as provided in subdivision (3) of this subsection, any owner or operator performing industrial solvent cleaning shall use one of the following methods to limit VOC emissions:

(A) Use only cleaning solvent that complies with one of the following limitations:

(i) As-applied, has a VOC content that does not exceed 50 grams per liter (0.42 lb/gal), or

(ii) As-applied, has a vapor pressure no greater than 8 mm Hg at 20°C; or

(B) Install, operate and maintain in accordance with the manufacturer's recommendations, air pollution control equipment that reduces uncontrolled VOC emissions to the atmosphere from any industrial solvent cleaning by an overall control efficiency of at least 85%.

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

(A) New and used cleaning solvent, including those 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 cleaning solvent shall be minimized. Any leaked or spilled cleaning solvent shall be absorbed and removed immediately;

(C) Absorbent applicators, such as cloth and paper, which are moistened with cleaning solvent, shall be stored in a closed, nonabsorbent, non-leaking container for disposal or recycling; and

(D) Cleaning solvent shall be conveyed from one location to another in a closed container or pipe.

(6) Records.

(A) An owner or operator conducting industrial solvent cleaning shall maintain records of the information described in subparagraph (B) of this subdivision. 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 conducting industrial solvent cleaning shall maintain daily records of all cleaning solvents used, as follows:

(i) Name and description of each cleaning solvent,

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

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

(iv) The amount of each cleaning solvent,

(v) A Material Safety Data Sheet for each 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 conducting industrial solvent cleaning who is not otherwise subject to the provisions of this subsection shall maintain materials purchase records to verify that the provisions of this subsection do not apply to such owner or operator.

(D) An owner or operator conducting industrial solvent cleaning subject to an exemption or exception in subdivision (3) of this subsection shall maintain records sufficient to verify the applicability of the exemption or exception.

(jj) Spray application equipment cleaning.

(1) Definitions. For the purpose of this subsection:

(A) "Capture efficiency" means the ratio of VOC emissions delivered to the control device to the total VOC emissions resulting from spray application equipment cleaning, expressed as a percentage;

(B) "Cleaning solvent" means any VOC-containing liquid used to clean spray application equipment;

(C) "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;

(D) "Enclosed gun cleaner" means a device, used for cleaning spray application equipment, which has an enclosed cleaning solvent container and either:

(i) Is not open to the ambient air when in use and has a mechanism to force the cleaning solvent through the spray application equipment while the cleaner is in operation, or

(ii) Uses non-atomized solvent flow to flush the spray application equipment and collects and returns the discharged cleaning solvent to the enclosed container;

(E) "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;

(F) "Overall control efficiency" means the product of the capture efficiency and the control device efficiency; and

(G) "Spray application equipment" means a hand-held device that creates an atomized mist of coating, or other liquid substance, and deposits the coating, or other liquid substance, on a substrate.

(H) "As-applied VOC content" means the VOC content of a cleaning solvent at the time of use, including any solvent, catalyst or other substance added to the as-supplied cleaning solvent. "As-applied VOC content" is determined using an EPA reference method, a California Air Resources Board reference method ~~or other method approved by the commissioner~~.

(2) Applicability. Except as provided in subdivision (3) of this subsection, on and after January 1, 2011, the provisions of this subsection apply to an owner or operator of any spray application equipment.

(3) Exemptions and exceptions.

(A) The requirements of this subsection shall not apply to cleaning of spray application equipment as follows:

(i) Associated with automotive refinishing and conducted pursuant to section 22a-174-3b(d) of the Regulations of Connecticut State Agencies,

(ii) Pursuant to section 22a-174-44(d) of the Regulations of Connecticut State Agencies,

(iii) 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,

(iv) Necessary to meet a standard or specification of the United States Department of Defense,

(v) Associated with research and development, quality control or laboratory testing, or

(vi) Associated with medical device manufacturing;

(B) The cleaning solvent VOC content limit of subparagraphs (B) through (D) of subdivision (4) of this subsection shall not apply to the cleaning of spray application equipment used in the assembly, repair and manufacture of submarines;

(C) Using cleaning solvent that exceeds the VOC content limitation of subparagraph (B), (C) or (D) of subdivision (4) of this subsection where the quantity of cleaning solvent used does not exceed 55 gallons in aggregate per any 12-month rolling period. Any person claiming exemption pursuant to this subparagraph shall record and maintain monthly records sufficient to demonstrate compliance with this exemption; and

~~(D) The cleaning solvent VOC content limitations of subparagraph (B), (C) or (D) of subdivision (4) 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 solvent and its VOC content, an explanation of why the noncompliant solvent is necessary, the aggregate amount in gallons or pounds of noncompliant solvent use anticipated in a 12-month period and the frequency of use of the noncompliant solvent.~~

(4) Control of emissions. An owner or operator shall clean spray application equipment in accordance with the requirements of one of the following subparagraphs:

(A) Using an enclosed gun cleaner that is maintained and operated in accordance with the manufacturer's recommendations and the following practices:

(i) Operate using an automated cycle, if applicable,

(ii) Inspect hoses regularly for leaks,

(iii) If a leak is discovered, repair as soon as practicable but no later than 15 days after discovery, and

(iv) Ensure the cover is properly closed;

(B) Using only cleaning solvent with an as-applied VOC content that does not exceed 50 grams per liter (0.417 lb/gal) by placing cleaning solvent in the pressure pot and forcing the solvent through the gun with the atomizing cap in place, without the use of atomizing air. Used cleaning solvent shall be directed into a vat, drum or other waste container that is closed when not in use;

(C) Using only cleaning solvent with an as-applied VOC content that does not exceed 50 grams per liter (0.417 lb/gal) by disassembling the spray gun and cleaning the components and associated hoses and pumps by hand in a vat, which shall remain closed at all times except when in use. Components and associated hoses and pumps may be soaked in a vat with a capacity no greater than 20 liters. Such a soaking vat shall remain closed during the soaking period, except when inserting or removing items;

(D) Using only cleaning solvent with an as-applied VOC content that does not exceed 50 grams per liter (0.417 lb/gal) by forcing cleaning solvent through the spray gun and directing the atomized solvent spray into a waste container that is fitted with a device to capture the resulting emissions; or

(E) Installing, operating and maintaining air pollution control equipment that reduces uncontrolled VOC emissions to the atmosphere from any spray application equipment cleaning by an overall control efficiency of at least 85%.

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

(A) New and used cleaning solvent, including those 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 cleaning solvent shall be minimized. Any leaked or spilled cleaning solvent shall be absorbed and removed immediately;

(C) Absorbent applicators, such as cloth and paper that are moistened with cleaning solvent shall be stored in a closed, nonabsorbent, non-leaking container for disposal or recycling;

(D) Cleaning solvent shall be conveyed from one location to another in a closed container or pipe; and

(E) Air pollution control equipment shall be operated and maintained in accordance with the manufacturer's recommendations.

(6) Records.

(A) An owner or operator conducting spray application equipment cleaning shall maintain records of the information described in subparagraph (B) of this subdivision. 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 conducting spray application equipment cleaning shall maintain daily records of all cleaning solvents used, as follows:

(i) Name and description of each cleaning solvent,

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

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

(iv) The amount of each cleaning solvent,

(v) A Material Safety Data Sheet for each cleaning solvent,

(vi) A description of the type of cleaning equipment and process,

(vii) 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

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

(C) An owner or operator that is conducting spray application equipment cleaning subject to an exemption or exception in subdivision (3) of this subsection shall maintain records sufficient to verify the applicability of the exemption or exception.