ILLINOIS POLLUTION CONTROL BOARD
January 5, 2012

IN THE MATTER OF:	)	
	)	
AMENDMENTS TO 35 ILL. ADM. CODE	)	R12-8
PART 223: STANDARDS AND	)	(Rulemaking - Air)
LIMITATIONS FOR ORGANIC MATERIAL	)	
EMISSIONS FOR AREA SOURCES	)	

Proposed Rule. First Notice.

OPINION AND ORDER OF THE BOARD (by T.A. Holbrook):

For first-notice publication in the *Illinois Register*, the Board today proposes amendments to its Part 223 air pollution regulations. 35 Ill. Adm. Code 223. The Illinois Environmental Protection Agency (Agency or Illinois EPA or IEPA) initiated this proceeding by filing a rulemaking proposal on July 13, 2011. The Agency's proposed amendments intend to reduce emissions of volatile organic material (VOM) from various consumer and commercial products and aerosol coatings.

After conducting two public hearings in this matter and considering the entire record, the Board proposes for first notice the amendments to Part 223 described below in this opinion and order. Publication of these proposed amendments in the *Illinois Register* will begin a 45-day public comment period. *See* 5 ILCS 100/5-40(b) (2010) (Illinois Administrative Procedure Act).

In the opinion below, the Board first provides the procedural background of this rulemaking before briefly summarizing the Agency's original proposal and the testimony of the Consumer Specialty Products Association (CSPA), the only other entity testifying in this proceeding. After addressing a preliminary issue, the Board then describes the product categories affected by the Agency's proposal before addressing the estimated VOM emissions from them and projected emission reductions ensuing from this proposal. After discussing issues of technical feasibility and economic reasonableness, the Board makes its findings on them. The Board then provides a section-by-section summary of the record on its first-notice proposal before reaching its conclusion and issuing its order setting forth the proposed amendments for first-notice publication.

PROCEDURAL BACKGROUND

Procedural History

On July 13, 2011, the Agency filed a proposal to amend Part 223 of the Board's air pollution regulations. *See* 35 Ill. Adm. Code 223. Accompanying the proposal were documents including a Statement of Reasons (SR) and a Technical Support Document (TSD). The TSD listed as references two documents: the first an "Initial Statement of Reasons for the Proposed Amendments to the California Aerosol Coating Products, Antiperspirants and Deodorants, and

Consumer Products Regulations, Test Method 310, and Airborne Toxic Control Measure for Para-Dichlorobenzene Solid Air Fresheners and Toilet/Urinal Care Products" (ISOR) by the California Air Resources Board [CARB] released May 7, 2004; and the second the Agency's own "Illinois Ozone Emissions Inventory for 2008" (Inventory). The Agency also submitted as a source it had relied upon in drafting its proposal the "Final Draft of the Model Rule for Consumer Products" (Model Rule) prepared by the Ozone Transport Commission (OTC)[1] and dated September 13, 2006. The Agency's proposal also included a motion for waiver of specified copy requirements.

In an order dated August 4, 2011, the Board accepted the Agency's proposal for hearing and granted the Agency's motion for waiver of copy requirements. Also on August 4, 2011, the hearing officer issued an order scheduling a first hearing in Springfield on October 6, 2011, with a deadline of September 22, 2011 to pre-file testimony; and a second hearing in Chicago on November 17, 2011, with a deadline of November 3, 2011, to pre-file testimony.

On September 22, 2011, the Agency pre-filed testimony by Mr. Rory Davis (Davis Test.). On September 26, 2011, CSPA pre-filed testimony by Mr. Joseph T. Yost (Yost Test.).

The first hearing took place as scheduled on October 6, 2011, in Springfield, and the Board received the transcript (Tr.1) on October 11, 2011. During the first hearing, the hearing officer admitted into the record a single exhibit, the pre-filed testimony of Mr. Davis (Exh. 1). Tr.1 at 8.

The second hearing took place as scheduled on November 17, 2011, in Chicago, and the Board received the transcript (Tr.2) on November 18, 2011. During the second hearing, the hearing officer admitted into the record two exhibits: a list of sources potentially affected by the Agency proposal (Exh. 2; *see* Tr.1 at 12-13); and the pre-filed testimony of Mr. Yost (Exh. 3). Tr.2 at 5, 7. In an order dated November 17, 2011, the hearing officer set a deadline of December 14, 2011, for filing post-hearing comments.

As required by Section 27(b) of the Act (415 ILCS 5/27(b) (2010)) the Board requested in a letter dated August 4, 2011, that the Department of Commerce and Economic Opportunity (DCEO) conduct an economic impact study (EIS) of the Agency's rulemaking proposal. The Board asked DCEO to determine by September 15, 2011, whether it would perform an EIS. In a letter dated September 20, 2011, DCEO Director Warren Ribley acknowledged receiving the Board's request. His response stated that, "[a]t this time, the Department in unable to undertake such an economic impact study. Therefore, I must respectfully decline your request." During the second hearing, the hearing officer noted the Board's request and DCEO's response to it. Tr.2 at 24-25. Although the hearing officer afforded those present an opportunity to testify regarding the request and response, no participant offered testimony. *See id*.

[1] The Ozone Transport Commission includes the States of Connecticut, Delaware, Maine, Maryland, Massachusetts, New Hampshire, New Jersey, New York, Pennsylvania, Rhode Island, Vermont, and Virginia, and the District of Columbia. TSD at 8.

On December 14, 2011, the Board received post-hearing comments from the following entities: CSPA (PC 1); Chicago Aerosol, Bridgeview Facility (Chicago Aerosol) (PC 2); the Agency (PC 3); and Claire Manufacturing Company (Claire) (PC 4).

Filing Public Comments

First-notice publication of these proposed amendments in the *Illinois Register* will start a period of at least 45 days during which any person may file a public comment with the Board, regardless of whether the person has already filed a public comment. *See* 5 ILCS 100/5-40(b) (2010) (Illinois Administrative Procedure Act). The Board encourages comments on these proposed amendments. The docket number for this rulemaking, R12-8, should be indicated on the public comment.

Public comments must be filed with the Clerk of the Board at the following address:

Pollution Control Board
John T. Therriault, Assistant Clerk
James R. Thompson Center
100 W. Randolph Street, Suite 11-500
Chicago, IL 60601

Public comments may be filed electronically through the Board's Clerk's Office On-Line, or COOL, at www.ipcb.state.il.us. Any questions about electronic filing through COOL should be directed to the Clerk's Office at (312) 814-3629.

Please note that all filings with the Clerk of the Board must be served on the hearing officer and on those persons on the Service List for this rulemaking. Before filing any document with the Clerk, please check with the hearing officer or the Clerk's Office to verify the most recent version of the Service List.

SUMMARY OF ORIGINAL PROPOSAL

The Agency stated that "[o]zone is not emitted directly by most sources." SR at 1. The Agency further stated that precursors such as VOM[2], nitrogen oxides, and carbon monoxide react in the presence of direct sunlight and high ambient temperatures to form ozone. *Id*., citing TSD at 7. The Agency stated that, "[a]s a powerful oxidant, ozone reacts readily with a wide range of substances." SR at 2, citing TSD at 7. The Agency added that, in humans, ozone irritates the respiratory system "and may damage lung and other tissues." SR at 2, citing TSD at 7.

[2] The Agency stated that, although it uses the term "volatile organic materials" or "VOM," and the United States Environmental Protection Agency uses "volatile organic compound" or "VOC," the two terms are "interchangeable." SR at 2; *see* 35 Ill. Adm. Code 211.7150 (definition).

The Agency indicated that the existing provisions of Part 223 reduce "VOM emissions by putting limits on the VOM contents of numerous consumer products." SR at 2; *see* 35 Ill. Adm. Code 223; TSD at 5, 7. The Agency noted that the United States Environmental Protection Agency (USEPA) has defined "consumer products" as "any household or institutional product (including paints, coatings, and solvents), or substance, or article (including any container or packaging) held by any person, the use of which may result in the release of volatile organic compounds." TSD at 9, citing 40 C.F.R. § 59.202; SR at 2. The Agency elaborated that

> [c]onsumer and commercial products are chemically formulated products used by household and institutional consumers including, but not limited to, detergents; cleaning compounds; polishes; floor finishes; cosmetics; personal care products; home, lawn, and garden products; disinfectants; sanitizers; aerosol paints; and automotive specialty products; but does not include other paint products, furniture coatings, or architectural coatings. Consumer and commercial products also includes aerosol adhesives, including aerosol adhesives used for consumer, industrial, and commercial uses. TSD at 9.

The Agency stated that retail customers purchase hundreds of these products for personal, household, or automotive use, and they are also "marketed by wholesale distributors for use in commercial or industrial settings such as beauty shops, schools, and hospitals." *Id*. The Agency claimed that consumer products account on an annual basis for approximately 9.98% of the total anthropogenic VOM emissions in Illinois, approximately 9.80% in the Metro East nonattainment area (NAA), and approximately 13.56% in the Chicago NAA. TSD at 9, 11; *see* SR at 2.

The Agency stated that the Board adopted Part 223 in 2009. *See* Standards and Limitations for Organic Material Emissions for Area Sources Proposed New 35 Ill. Adm. Code Part 223, R08-17 (May 7, 2009); *see also* 33 Ill. Reg. 8224 (June 19, 2009); TSD at 5. The Agency stated that these limits mirrored a 2001 OTC model rule. TSD at 7. The Agency further stated that its proposed limits in R08-17 "were consistent with those in the 2006 OTC Model Rule for Consumer Products that were in turn based on the consumer product VOM limits in [] California's Midterm Measures II rules and the 2004 amendments to those rules." SR at 3, citing TSD at 5; *see* Davis Test. at 2; *see generally* Model Rule, ISOR. The Agency noted that the Board did not adopt limits for a number of categories on the basis that the Agency had not provided adequate technical support for them. SR at 3, citing TSD at 5; *see* Davis Test. at 2. The Agency further noted that "[t]he categories excluded at that time were those that were proposed by California in its 2004 Amendments and incorporated into the 2006 OTC Model Rule." SR at 3; TSD at 5; *see generally* Model Rule, ISOR. The Agency stated that, with the exceptions of toilet/urinal care products and solid/gel room air fresheners, it sought to adopt limits for those categories as it had originally proposed. SR at 3, citing TSD at 5; *see* Davis Test. at 1, 2. The Agency argued that these proposed limits will help maintain the 8-hour ozone National Ambient Air Quality Standard for zone as required by the Clean Air Act. TSD at 7.

More specifically, the Agency sought to amend Part 223 to "include limits in percent VOM by weight for adhesive removers, contact adhesives, non-aerosol antistatic products, electrical cleaners, engine degreasers, fabric refreshers, footwear or leather care products, graffiti removers, hair styling products, shaving gels, and wood cleaners." SR at 3; *see* TSD at 5, 9;

Davis Test. at 2; Tr.1 at 11. The Agency stated that its proposed amendments would apply to the entire state and expected control of additional categories to reduce VOM emissions in Illinois by one ton per day (TPD). SR at 4, citing TSD at 18; *see* Davis Test. at 2. The Agency argued that "some of these reductions have already taken place due to nationwide compliance by many of the larger manufacturers of these products with the California or OTC rules." SR at 4, citing TSD at 18. The Agency also proposed a clarification of the existing Architectural and Industrial Maintenance rule in order to clarify and simplify compliance. SR at 1, 4.

SUMMARY OF CSPA TESTIMONY

CSPA stated that it is a "national trade association representing the interests of approximately 240 companies engaged in the manufacture, formulation, distribution and sale of commercial products" for household and institutional customers. Yost Test. at 4; Tr.2 at 6. CSPA reported that 42 of its members have headquarters or facilities in Illinois. Yost Test. at 4; Tr.2 at 6. Members' products include disinfectants, air fresheners, cleaners, polishes, and automotive items. Yost Test. at 4. CSPA states that its members manufacture and market products in more than two-thirds of the categories covered by current Illinois regulations and the Agency's proposal. *Id*. at 5; Tr.2 at 6.

In his pre-filed testimony on behalf of the CSPA, Mr. Yost expressed "general support for the Illinois EPA's proposed regulation because it is consistent with the Ozone Transport Commission's Model Consumer Products Rule." Yost Test. at 1; *see* Tr.2 at 10-11. He stated that CSPA members "strongly support the promulgation of regionally consistent regulations for consumer products throughout the Midwest and East Coast." Yost Test. at 6. He added that adoption of the Agency's proposal would "promulgate stringent regulatory standards that are consistent with the volatile organic compound (VOC) limits established by final regulations promulgated in Midwest and East Coast states:" Ohio, Michigan, Indiana, Connecticut, Delaware, Maryland, Massachusetts, Maine, New Jersey, New York, Pennsylvania, Rhode Island, and Virginia. *Id*. at 1, 3 (citations omitted); *see* Tr.2 at 10-11.

CSPA expressed strong belief that interstate commerce should not be burdened by regulations that vary from state to state. *See* Yost Test. at 6. CSPA argued that consistent regulations particularly benefit "small- and medium-sized businesses since these companies generally lack the staff resources to ensure that the companies' products comply with a patchwork of different (and potentially conflicting) state-specific requirements." *Id*. at 6; *see* Tr.2 at 9-10.

CSPA sought to make three specific revisions to Section 223.211 of the Agency's proposal. CSPA also offered a "technical revision" of the table of standards in Section 223.205. During the second hearing, CSPA proposed two changes to the Agency's proposal: an amendment to the definition of "existing product" in Section 223.203, and an amendment to the effective date for products regulated under the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA) in Section 223.207. The Board addresses these suggested revisions below in the section-by-section summary of its first-notice proposal.

PRELIMINARY ISSUE

During the first hearing, counsel for the Agency moved to correct specific provisions of Part 223. Counsel stated that the Board order adopting Part 223 "was correct, but for some reason, the published version in the *Illinois Register* had an incorrect notation." Tr.1 at 9; *see* 33 Ill Reg. 8224, 8263-64 (June 19, 2009); Standards and Limitations for Organic Material Emissions for Area Sources Proposed New 35 Ill. Adm. Code Part 223, R8-17, slip op. at 36-37 (May 7, 2009) (adoption order).

The Agency first addressed Section 223.205(a)(6)(A), which establishes VOM content limits for aerosol antiperspirants. 35 Ill. Adm. Code 223.205(a)(6)(A). Counesl reported that the subsection should establish limits of 40 HVOM and 10 MVOM, but the separate limits both refer to HVOM.[3] Tr.1 at 9. He added that subsection (a)(6)(B) limits for non-aerosol antiperspirants should be 0 HVOM and 0 MVOM, but the separate limits both refer to MVOM. *Id*.

The Agency then addressed Section 223.205(a)(17)(A), which establishes VOM content limits for aerosol deodorants. 35 Ill. Adm. Code 223.205(a)(17)(A). Counsel reported that the subsection should establish limits of 0 HVOM and 10 MVOM, but the separate limits both refer to HVOM. Tr.1 at 9. He added that subsection (a)(17)(B) limits for non-aerosol deodorants should be 0 HVOM and 0 MVOM, but the separate limits both refer to MVOM. *Id*.

The Agency moved that the Board propose to "amend the rule to reflect the proper language as in the Board final order." Tr.1 at 9-10; *see* Standards and Limitations for Organic Material Emissions for Area Sources Proposed New 35 Ill. Adm. Code Part 223, R8-17, slip op. at 36-37 (May 7, 2009). The hearing officer indicated that the Board would "take that under advisement as a motion to amend as part of this rulemaking proceeding 12-8." Tr.1 at 10.

The Board has reviewed the substance of the Agency's motion and agrees that Sections 223.205(a)(6) and (a)(17) as adopted by the Board on May 7, 2009, are not accurately reflected in the publication of those subsections in the *Illinois Register* on June 19, 2009. The Board can only attribute this discrepancy to inadvertent error. The Board agrees that the Agency's proposed amendment is supported by the record in R8-17 and matches the final order in that docket. The Board has received no response to the Agency's motion that the Board submit its amendment to first-notice publication. *See* 35 Ill. Adm. Code 101.500(d). Accordingly, the Board grants the Agency's motion and in its order below submits the proposed amendments of Sections 223.205(a)(6) and (a)(17) to first-notice publication.

DESCRIPTION OF AFFECTED PRODUCT CATEGORIES

Adhesive Removers

The Board's VOM regulations define "adhesive" to mean

[3] "HVOM" and "MVOM" refer to "high volatility organic material" and "medium volatility organic material," respectively. 35 Ill. Adm. Code 225.203 (Definitions).

> any product that is used to bond one surface to another by attachment. This does not include products used on humans and animals, adhesive tape, contact paper, wallpaper, shelf liners, or any other product with an adhesive incorporated onto or in an inert substrate. For 'Contact Adhesive', adhesive does not include units of product, less packaging, that consist of more than one gallon. For 'Construction, Panel, and Floor Covering Adhesive', and 'General Purpose Adhesive', 'Adhesive' does not include units of product, less packaging, that weigh more than one pound and consist of more than 16 fluid ounces. This limitation does not apply to aerosol adhesives. 35 Ill. Adm. Code 223.203; *see* Model Rule at 3.

The term "adhesive" includes both glues and sealants, terms which are often used interchangeably. ISOR at VI-58. More specifically, "[a]n 'adhesive' is a fluid or semi-fluid material consisting of one or more tackifying polymers and/or resins [resin] dissolved in a variety of solvents for the purpose of forming a physical bond between two materials." *Id*. With evaporation of the solvent, the dissolved resin forms the physical bond. *Id*. In addition to these evaporative adhesives, "[s]ome adhesives require a second component (called a hardener) in order to form a secure bond" between two materials. *Id*. Some of these reactive adhesives, such as epoxies, require mixture of adhesive and hardener to form a physically reactive bond. *Id*. With other reactive adhesives, the hardener may be heat, moisture, or ultraviolet light. *Id*. In addition, there exist hybrid systems which incorporate both evaporative and reactive adhesive technologies. *Id*. Finally, there are also "hotmelt" adhesives, which "are 100 percent solids, heated past their melting point, and applied in their molten state." *Id*. at VI-59.

The Board's VOM regulations define "adhesive remover" to mean

> a product designed to remove adhesive from either a specific substrate or a variety of substrates. 'Adhesive Remover' does not include products that remove adhesives intended exclusively for use on humans or animals.
>
> > For the purpose of this definition and the "Adhesive Remover" subcategories listed in this definition, the term "Adhesive" shall mean a substance used to bond one or more materials. Adhesive includes, but is not limited to, caulks, sealants, glues, or similar substances used for the purpose of forming a bond. . . . 35 Ill. Adm. Code 223.203; *see* Model Rule at 4.

Consumers use adhesive removers for a number of purposes, and these products "are sold in a variety of sales outlets including hardware stores and wholesalers; home centers; paint stores; hobby and craft stores; supermarkets and other grocery stores; automotive parts and accessories stores; and by mass merchandisers." ISOR at VI-61. In addition, industrial and institutional users acquire adhesive removers either through distributors or through direct sales by manufacturers. *Id*. Adhesive removers "remove or clean adhesive and adhesive residue of varying compositions from a variety of surfaces using combinations of solubility, swelling, and softening properties." *Id*. at VI-58; *see* Model Rule at 4. The numerous adhesive removing products employ both VOM and non-VOM formulations and may be available in aerosol and non-aerosol forms. ISOR at IV-63.

The Agency proposes VOM content limits for adhesive removers in four subcategories based on the range of adhesive applications and products used to remove them: Floor or Wall Covering Adhesive Remover, Gasket or Thread Locking Adhesive Remover, General Purpose Adhesive Remover, and Specialty Adhesive Remover. ISOR at VI-58 - VI-59. The Board separately describes these four subcategories in the following subsections of its opinion.

Floor and Wall Covering Adhesive Remover

The Board's VOM regulations define "Floor and Wall Covering Adhesive Remover" to mean "a product designed or labeled to remove floor or wall coverings and associated adhesive from the underlying substrate." 35 Ill. Adm. Code 223.203; *see* ISOR at VI-59, VI-61; Model Rule at 4. The coverings addressed in this subcategory "are indoor or outdoor, non-structural, decorative finishing materials, including counter top finishes." ISOR at VI-61. "Floor and wall-covering adhesive removers are formulated using both VOC and non-VOC technologies, including chlorinated solvents such as methylene chloride." *Id*. The removers may be sold for multipurpose or specialty uses and may be labeled as remover or cleaner for "mastic; carpet and glues; wet and cured urethane flooring adhesive; wallpaper; acrylic; cutback; latex; tiles; cove base; or sealer and adhesive remover." *Id*.

Directions for use of adhesive removers vary by covering. ISOR at VI-61. Directions for a number of products recommend removing as much of the covering as possible before applying adhesive remover. *Id*. For porous coverings such as wallpaper or carpet, "directions suggest application by spraying or pouring the remover onto the covering." *Id*. For less porous coverings such as wood flooring or tiles, "directions recommend saturating the covering with remover and allowing it to soak in and soften the adhesive." *Id*. Non-porous tiles may require drilling holes so the remover is able to penetrate the surface. *Id*. After application of the remover and waiting a recommended amount of time, the surface is scraped to remove any remaining covering and the adhesive. *Id*. The remover is often applied a second time in order "to further soften or liquefy the adhesive" before a second scraping to remove it. *Id*. "The final step is a wash and rinse of the surface." *Id*.

In this subcategory, adhesive removers have both VOM and non-VOM formulations. ISOR at IV-64. "Hydrocarbon propellants are used for aerosol removers." *Id*. Low-VOM products remove adhesives with formulations containing "methylene chloride, dibasic esters, soy methyl esters, LVP-glycol ethers, water, and inorganic or surfactant ingredients." *Id*. Products containing higher levels of VOM employ "hydrocarbon solvents, 2-butoxyethanol, d'limonene, and glycol ethers." *Id*.

Gasket or Thread Locking Adhesive Remover

The Board's VOM regulations define "Gasket or Thread Locking Adhesive Remover" to mean "a product designed or labeled to remove gaskets or thread locking adhesives. Products labeled for dual use as a paint stripper and gasket remover and/or thread locking adhesive remover are considered 'Gasket or Thread Locking Adhesive Remover.'" 35 Ill. Adm. Code 223.203; *see* ISOR at VI-59, VI-62; Model Rule at 4. "Gaskets are materials located between

two flanges clamped together to ensure the integrity of the seal," and they can be made of materials including silicone. ISOR at VI-63. Generally, silicone gaskets are cured by moisture either in the air or in a substrate "to form a cured polymer layer with high strength." *Id*. "Gasket removers are products applied to remove gasket seals from flat or semi-flat metal parts." *Id*. "Thread locking adhesives are anaerobic adhesives that cure to form a solid polymer in the absence of oxygen" and generally are used to adhere metal parts. *Id*. "[T]hread locking adhesive removers are used to remove seals used to join cylindrical metal parts" such as shafts or bolts. *Id*. Within this subcategory, products typically perform both functions. *Id*. In addition, they often contain methylene chloride and commonly advertise paint removal claims on their labels. *Id*. "Products that suggest suitable use for removing gaskets or thread locking adhesives and paint removal would be included in this subcategory; and subject to the proposed prohibition of chlorinated solvents." *Id*.; *see* 35 Ill. Adm. Code 223.203 (definitions); Model Rule at 4.

Products in this subcategory are typically sold in an aerosol formulation. ISOR at VI-63. "The pressure and force from the aerosol provides a penetrative quality that aids in the swelling and softening of the adhesive." *Id*. After aerosol spraying, the remover sits for a short time before scraping to remove the gasket or loosening the cylindrical part. *Id*. If an adhesive proves to be difficult to remove, additional application may be necessary. *Id*. In addition to these aerosol removers, foaming products are available. *Id*.

In this subcategory, products "use dimethyl ether or hydrocarbon propellant systems." ISOR at VI-64. "Non-propellant ingredients for this subcategory include: n-methyl-2-pyrrolidone, xylenes, methylene chloride, hydrocarbon solvents, methanol, monoethanolamine, water, and alcohol." *Id*.

Although a number of gasket or thread locking adhesives are reactive and form polymerized bonds, these products are excluded from the subcategory of "specialty adhesive remover" and its higher VOM content limit. ISOR at VI-63; *see* 35 Ill. Adm. Code 223.203 (definitions); Model Rule at 4. Products in this gasket or thread locking adhesive remover subcategory remove gaskets of various types, including those pre-formed from non-reactive materials such as rubber, cork, or cardboard, which may not require the higher VOM limit. ISOR at VI-63. Also, products in this subcategory contain solvents intended only to soften adhesives for scraping. *Id*. "[P]roducts in the 'Specialty Adhesive Remover' [subcategory] may be used on more sensitive substrates where mechanical scraping may harm the substrate. . . ." *Id*. CARB concluded that these factors fail to justify a higher VOM content limit for products removing gaskets or thread locking adhesives. *Id*.

General Purpose Adhesive Remover

The Board's VOM regulations define "General Purpose Adhesive Removers" to mean products

> designed or labeled to remove cyanoacrylate adhesives as well as non-reactive adhesives or residue from a variety of substrates. 'General Purpose Adhesive Remover' includes, but is not limited to, the following: products that remove thermoplastic adhesives, pressure sensitive adhesives, dextrine or starchbased

> adhesives, casein glues, rubber or latex-based adhesives, and products that remove stickers, decals, stencils, or similar materials. 'General Purpose Adhesive Remover' does not include "Floor or Wall Covering Adhesive Remover". 35 Ill. Adm. Code 223.203; *see* ISOR at VI-59, VI-61; Model Rule at 4.

Many of the products in this subcategory remove paper-related items employing pressure-sensitive adhesives. ISOR at VI-62. These pressure-sensitive adhesives "are available in solvent and emulsion based forms" and are frequently "based on non-reactive rubber adhesives, acrylics, or polyurethanes." *Id*. "Pressure sensitive adhesives form viscoelastic bonds that are aggressively and permanently tacky; adhere without the need of more than a finger or hand pressure; and require no activation by water, solvent, or heat." *Id*. This subcategory also includes products that remove cyanoacrylate adhesives known as "super glues" even though they are technically reactive. *Id*. at VI-61; *see* 35 Ill. Adm. Code 223.203 (definitions); Model Rule at 4. Consumers tend to consider those adhesives as general purpose in nature, and they can be removed using acetone. *Id*. at VI-61.

Directions for products in this subcategory may indicate that they may be sprayed, poured, or applied with a cloth in order to remove the adhesive. ISOR at VI-62. "In addition to dissolving the adhesive, some products may be formulated to swell and soften the adhesive." *Id*. Directions generally recommend that the dissolved or softened adhesive be scraped away and that a damp or dry cloth then clean the surface. *Id*.

In this subcategory, adhesive removers are available in both aerosol and non-aerosol formulations. ISOR at VI-62. They typically have a high VOM content, "although there is limited use of LVP-VOC and exempt ingredients such as dibasic esters and acetone." *Id*. at IV-62, IV-64. These removers typically include the following ingredients: hydrocarbon solvents, d'limonene, isopropyl alcohol, 2-butoxyethanol, xylenes, glycol ethers, and hydrocarbon propellants for aerosols." *Id*. at VI-64.

Specialty Adhesive Remover

The Board's VOM Regulations define "Special Adhesive Removers" to mean products

> designed to remove reactive adhesives from a variety of substrates. Reactive adhesives include adhesives that require a hardener or catalyst in order for the bond to occur. Examples of reactive adhesives include, but are not limited to epoxies, urethanes, and silicones. 'Specialty Adhesive Remover' does not include 'Gasket or Thread Locking Adhesive Remover.' 35 Ill. Adm. Code 223.203; *see* ISOR at VI-59; Model Rule at 4.

Generally, this definition refers to products removing reactive adhesives that are not regulated under one of the three other subcategories. ISOR at VI-59. These reactive adhesives include "epoxies, acrylics, adhesive vinyl welds, urethanes, silicones, or structural adhesives and sealants." *Id*. at IV-62; *see* Model Rule at 4. Generally, these reactive adhesives require mixture of an adhesive polymer or resin and a hardener or catalyst to form a polymerized or crosslinked structure. ISOR at VI-62. Other reactive adhesives initiate this crosslinking by exposure to an

external element such as heat or ultraviolet light. *Id*. This subcategory excludes "gasket or thread locking adhesive removers." *Id*.; *see* 35 Ill. Adm. Code 223.203 (definitions).

Although reactive adhesives such as epoxies may form a very such strong bond, they are not necessarily more difficult than non-reactive adhesives to remove. ISOR at VI-62. However, "reactive adhesive removers may require a combination of solvents to dissolve and untangle adhesive bonds, as well as ingredients that swell and soften the adhesive. Swelling the adhesive enlarges the openings in the polymeric resin, allowing smaller, penetrating solvents to maneuver between the bonds, softening and lifting the adhesive from the substrate." *Id*. Directions generally recommend scraping away the adhesive and then wiping the surface clean, and they may recommend a second application to remove difficult adhesives. *Id*.

In this subcategory, adhesive removers "utilize traditional VOC solvent ingredients such as methyl ethyl ketone, hydrocarbon solvents, xylenes, toluene, and aerosols use hydrocarbon propellants." ISOR at VI-64.

Anti-Static Products

The Board's VOM regulations define "anti-static products" to mean "a product that is labeled to eliminate, prevent, or inhibit the accumulation of static electricity. 'Anti-Static Product' does not include 'Electronic Cleaner', 'Floor Polish or Wax', 'Floor Coating', and products that meet the definition of 'Aerosol Coating Product' or 'Architectural Coating.'" 35 Ill. Adm. Code 223.203; *see* Model Rule at 5. The category does "not include dusting aids or General Purpose Cleaners that may impart some anti-static properties." ISOR at VI-71. These anti-static products "are designed and labeled to eliminate, prevent, or inhibit the accumulation of static electricity that can occur on hard surfaces, such as floors and countertops, and fabrics." ISOR at VI-71. Consumers generally use these products to release static cling from clothing, while commercial and institutional customers use them "to dissipate static charge from floors and/or fabric." *Id*.

Anti-static products are available in both aerosol and non-aerosol forms. ISOR at VI-72. "Aerosol products are designed, and labeled, for usage on a variety of surfaces including machinery, draperies, floors and clothing." *Id*. They are intended generally for household use and "are mainly found in supermarkets, office supply or electronics stores, and convenience stores." *Id*. at V-72, VI-73. "Aerosol anti-static products must eliminate static electricity from a wide variety of surfaces, must dry quickly, and must not be susceptible to static ignition." *Id*. Although they are often used on clothing and other fabrics, "they are also designed for usage on carpeting around the computer, or other form of home electronic equipment, as well as on upholstery." *Id*. at VI-72. They typically consist of "alcohol to promote fast evaporation, a propellant, and a VOC exempt, or an inorganic compound, as an active ingredient." *Id*. at VI-73.

Non-aerosol anti-static products are chiefly intended "for use on hard floors in sensitive equipment work areas, but some products are designed for use on carpeting and other fabrics as well." ISOR at VI-72. They are "designed mainly for industrial and institutional use" and "are sold primarily in janitorial supply stores." *Id*. at VI-73. "These products are composed primarily of water with either a VOC exempt compound or an inorganic compound as the active

ingredient." *Id*. Non-aerosols generally provide a protective coating from electric charges generating by friction or rubbing. *Id*. Because their function may resemble a floor polish or wax, the most restrictive limit provision may apply to them. *Id*.; *see* 35 Ill. Adm. Code 223.260 (Most Restrictive Limit).

Contact Adhesives

The Board's VOM regulations now define "contact adhesive" to mean

> an adhesive that is designed for application to both surfaces to be bonded together, and is allowed to dry before the two surfaces are placed in contact with each other, and forms an immediate bond that is impossible, or difficult, to reposition after both adhesive-coated surfaces are placed in contact with each other, and does not need sustained pressure or clamping of surfaces after the adhesive-coated surfaces have been brought together using sufficient momentary pressure to establish full contact between both surfaces. 35 Ill. Adm. Code 223.203; *see* Model Rule at 7.

The definition establishes exceptions. It provides that "[t]he term does not include rubber cements that are primarily intended for use on paper substrates. 35 Ill. Adm. Code 223.203; *see* Model Rule at 7. It also does not include "vulcanizing fluids that are designed and labeled for tire repair only." 35 Ill. Adm. Code 223.203; *see* Model Rule at 7. In addition, the Board's definition of "adhesive" provides that, "[f]or 'contact adhesive,' adhesive does not include units of product, less packaging, that consist of more than one gallon." 35 Ill. Adm. Code 223.203; *see* Model Rule at 3.

Contact adhesives, which are applied to both substrate surfaces, are distinct from general purpose adhesives applied only to one substrate surface to form a bond. ISOR at VI-77. Contact adhesives have the "property of 'autohesion' which is the bonding of two adhesive surfaces to each other." *Id*. at VI-79. "[O]ther glues primarily function by forming bonds between the adhesive surface and the substrate to be joined. . . ." *Id*. In the application process, a contact adhesive "is spread evenly on both surfaces and allowed to dry before the surfaces are joined so that most of the solvent can evaporate." *Id*. When the surfaces are joined, "bonding occurs instantly without the need for sustained pressure or clamping." *Id*. With this ability to bond strongly to itself, a contact adhesive is often used to join non-porous surfaces, to which strong bonds are difficult to establish. *Id*. at VI-79. Contact adhesives have a number of applications and are often used on large surface areas or on curved or irregular surfaces for which clamping is impractical. *Id*. at VI-77, VI-79. They "can be used for furniture, kitchen cabinets; custom display cabinets; interior and exterior panels and partitions; footwear; automotive trim; roofing membrane attachment; and a wide variety of related applications where quick, high strength permanent bonds are needed." *Id*. at VI-79.

The Board's VOM regulations separate the "Contact Adhesive" category into two subcategories, "Contact Adhesive - Special Purpose" and "Contact Adhesive - General Purpose." Those regulations define the special purpose contact adhesive to mean

> a contact adhesive that is used to bond melamine-covered board, unprimed metal, unsupported vinyl, Teflon, ultra-high molecular weight polyethylene, rubber, or high pressure laminate or wood veneer 1/16 inch or less in thickness to any porous or nonporous surface, and is sold in units of product, less packaging, that contain more than eight fluid ounces, or is used in automotive applications that are either automotive under the hood applications requiring heat, oil or gasoline resistance or body-side molding, automotive weatherstrip or decorative trim. 35 Ill. Adm. Code 223.203; *see* Model Rule at 7.

The Board's VOM regulations define the general purpose contact adhesive to mean "any contact adhesive that is not a "Contact Adhesive - Special Purpose.'" 35 Ill. Adm. Code 223.203; *see* Model Rule at 7. Based on these definitions, general use adhesives "would typically be sold in units of product, less packaging, that contain no more than eight fluid ounces and would not be a product used for automotive applications." ISOR at VI-77. They are generally "packaged in squeeze tubes, glass bottles, or metal containers" and purchased by retail customers for small repairs and projects. *Id.* at VI-79. General purpose contact adhesives can suitably join "a wide variety of substrates, including plastic laminates; linoleum; metal; china; wood; masonry; leather; decorative laminates; veneer; foam; cloth; paper; cork; rubber; wood particle board; plywood; and drywall." *Id*.

"Contact adhesives are composed of an elastomeric polymer, which may be natural or synthetic rubber, carried in a solvent solution or in water as a latex emulsion." ISOR at VI-80. Solvent-based adhesives typically consist of "polychloroprene, t-butyl phenolic resin; magnesium oxide; zinc oxide; antioxidants; fillers; curing agents; and a mixture of solvents." *Id*. Commonly-used solvents include "aliphatic hydrocarbons (hexane, heptane); ketones (acetone and methyl ethyl ketone); alcohol; and aromatics (xylene and toluene)." Water-based adhesives find more common use in industrial applications and "are typically composed of polychloropene latex; terpene phenolic resin; zinc oxide; antioxidants; fillers; curing agents; and water." *Id*.

Electrical Cleaner

The Board's VOM regulations define "electrical cleaner" to mean

> a product labeled to remove heavy soils such as grease, grime, or oil from electrical equipment, including, but not limited to, electric motors, armatures, relays, electric panels, or generators. The term does not include "General Purpose Cleaner", "General Purpose Degreaser", "Dusting Aid", "Electronic Cleaner", "Energized Electrical Cleaner", "Pressurized Gas Duster", "Engine Degreaser", "Anti-Static Product", or products designed to clean the casings or housings of electrical equipment. 35 Ill. Adm. Code 223.203; *see* Model Rule at 8.

Because of the heavy nature of the soils they remove, these cleaners "normally use aggressive solvents" such as xylene, toluene, acetone, and 1-bromopropane. ISOR at VI-86, VI-89. Other products in this category contain "perchloroethylene, methylene chloride, or trichloroethylene solvents." *Id*. at VI-89. Most electrical cleaners are aerosol. *Id*. Aerosol products "tend to use carbon dioxide as the propellant, especially when chlorinated solvents are used." *Id*. Electrical

cleaners "are also conductive and some product labels specify that the products have dielectric strength[4] ranging from 10,000 to 30,000 volts per meter." *Id*. at VI-88.

When electrical equipment must be cleaned while current runs through it or when residual current exists, the application requires a non-flammable solvent. ISOR at VI-86. "Energized electrical cleaner" addresses this flammability hazard and forms a subcategory of electrical cleaner. *Id*. The Board's VOM rules define "energized electrical cleaner" to mean

> a product that meets both of the following criteria:
>
> > The product is labeled to clean and/or degrease electrical equipment, where cleaning and/or degreasing is accomplished when electrical current exists, or when there is a residual electrical potential from a component, such as a capacitor.
> >
> > The product label clearly displays the statements: "Energized equipment use only. Not to be used for motorized vehicle maintenance, or their parts."
> >
> > This does not include "Electronic Cleaner". 35 Ill. Adm. Code 223.203; *see* Model Rule at 9.

Energized electrical cleaners, whether in aerosol or noon-aerosol forms, "are generally formulated with exempt chlorinated solvents. . . .: *Id*., at VI-90. They may also be formulated with trichloroethylene, a VOM. *Id*. "Carbon dioxide is the propellant of choice because it is also non-flammable." *Id*.

Electronic Cleaner

The Board's VOM regulations define "electronic cleaner' to mean

> a product labeled for the removal of dirt, moisture, dust, flux or oxides from the internal components of electronic or precision equipment such as circuit boards, and the internal components of electronic devices, including, but not limited to, radios, compact disc (CD) players, digital video disc (DVD) players, and computers. "Electronic Cleaner" does not include "General Purpose Cleaner", "General Purpose Degreaser", "Dusting Aid", "Pressurized Gas Duster", "Engine Degreaser", "Electrical Cleaner", "Energized Electrical Cleaner", "Anti-Static

[4] "'Dielectric strength' is defined as the maximum voltage required to produce a dielectric breakdown through the material and is expressed as volts per unit thickness." ISOR at VI-87. According to Plastics Technology Laboratories, Inc., "[b]reakdown is when an electrical burn-through punctures the material, or decomposition occurs. The higher the dielectric strength of a material, the better its quality as an insulator." *Id*. The Institute for Research and Technical Assistance reports that the "[t]he dielectric strength cutoff for cleaners that can be used on energized equipment is generally 30 kV." *Id*.

> Product", or products designed to clean the casings or housings of electronic equipment. 35 Ill. Adm. Code 223.203; *see* Model Rule at 8-9.

These cleaners typically are applied to delicate substrates that may be harmed by aggressive solvents such as acetone or perchloroethylene, and they are not intended for use on energized equipment. ISOR at VI-86, VI-88. Electronic cleaners generally are used by consumers, technicians, and engineers. "These types of cleaners are to be sprayed until the soil has run off the equipment, must have a rapid dry-time, and must not leave a residue." *Id*. at VI-88.

Electronic cleaners typically consist of a variety of VOC and chlorinated solvents. ISOR at IV-89. These cleaners have commonly used HCFC-141b, an ozone-depleting substance phased out of use. *Id*. Products have replaced HCFC-141b with "combinations of different hydrofluorocarbons (HFC), hydrochlorofluorocarbons (HCFC), and hydrofluoroethers (HFE)." *Id*. Both aerosol and non-aerosol forms of these alternative are available. *Id*. "A number of the aerosols in this category use carbon dioxide as their propellant in the formulations that include HCFC-141b, but the higher VOC formulas normally use a hydrocarbon propellant. It is also not uncommon to see HFC-134a used as a propellant because it is nonflammable." *Id*.

Fabric Refresher

The Board's VOM regulations define "fabric refresher" to mean

> a product labeled to neutralize or eliminate odors on non-laundered fabric including, but not limited to, soft household surfaces, rugs, carpeting, draperies, bedding, automotive interiors, footwear, athletic equipment, or clothing or on household furniture or objects upholstered or covered with fabrics such as, but not limited to, wool, cotton, or nylon. "Fabric Refresher" does not include "Anti-static Product", "Carpet and Upholstery Cleaner", "Soft Household Surface Sanitizers", "Footwear or Leather Care Product", "Spot Remover", or "Disinfectant", or products labeled for application to both fabric and human skin.
>
> > For the purposes of this definition only, "Soft Household Surface Sanitizer" means a product labeled to neutralize or eliminate odors on the listed surfaces above whose label is registered as a sanitizer under the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA, 7 USC 136 *et seq*.). 35 Ill. Adm. Code 223.203; *see* Model Rule at 9.

Generally, these products are intended for household, automotive, commercial, and institutional settings for neutralizing or eliminating odor on fabric. ISOR at VI-96. Household odors may include "smoke, pet odors, kitchen odors, musty odors, odors caused by perspiration, germs, mold and mildew on fabric including, but not limited to, soft household surfaces, rugs, carpeting, draperies, bedding, automotive interiors, footwear, athletic equipment, clothing and/or household furniture or objects covered with fabrics such as wool, cotton, nylon, or other synthetic fabrics." *Id*. Institutional and commercial users include "nursing homes, hospitals, hotels, motels, and restaurants." *Id*. at VI-97. Retailers are the usual source of household products, "while the

institutional and commercial products are sold via wholesalers through distribution channels or direct sales." *Id*.

With aerosol and pump spray formulations, users spray refresher directly onto fabric. ISOR at VI-97. "The product penetrates the fabric, and the odor fades as the fabric dries. Solid fabric refresher products are typically sprinkled on the fabric surface, followed by vacuuming or sweeping." *Id*. Some fabric refreshers control odors simply by masking them "with molecules that have a more pleasant smell. Other products neutralize the odors by modifying the cause of the odor on the molecular level." *Id*. Fabric refreshes may also include "odor digesters with bacteria that create enzymes which seek and eliminates the odor's source." *Id*. (citation omitted).

Formulations of aerosol fabric refreshers typically are either single-phase or double-phase. ISOR at VI-97. Liquid components of a single-phase product "are present in a single homogeneous phase" containing a small amount of fragrance with solvents and propellants. *Id*. Many such products also include inorganic compounds such as metallic salt. However, "[t]hese aerosol products usually have a high VOC content." *Id*. More common are double-phase products, which include a propellant and two liquid phases: "a larger water phase and a smaller organic phase(s), which contains a small amount of fragrance." *Id*. Shaking mixes the phases into a homogeneous emulsion. *Id*. Both single-phase and double-phase aerosols typically use as propellants "blends of butanes and propane, or dimethyl ether. Propellants generally constitute 15 to 90 percent of the weight of the product for single-phase aerosols, and 5 to 30 percent of the weight of the product for double-phase aerosols." *Id*.

Pump spray fabric refreshers typically consist of "water, a small amount of fragrance and surfactants, and alcohol." ISOR at VI-97. Alcohol, the VOM found most often in this formulation, varies widely in terms of its percent of the weight of the product. *Id*. Alcohol serves to serves as a solvent for the fragrance compounds, controls particle size, and reduces the products' drying time. *Id*. at VI-97 - VI-98 (citation omitted).

"Liquid fabric refresher products are very similar in their formulation to pump spray products, usually containing water, small amount of surfactants and slightly higher amount of fragrance on average than pump sprays." ISOR at VI-98. Solid fabric refreshes generally consist of inorganic compounds and a small amount of fragrance. *Id*. "Inorganic compounds in solid fabric refreshers may serve as odor removers, moisture absorbents, dessicants, and fillers." *Id*. (citation omitted)

Footwear or Leather Care Product

The Board's VOM regulations define "Footwear or Leather Care Product" to mean

> any product designed or labeled to be applied to footwear or to other leather articles/components to maintain, enhance, clean, protect, or modify the appearance, durability, fit, or flexibility of the footwear or leather article/component. Footwear includes both leather and non-leather foot apparel. 'Footwear or Leather Care Product' does not include 'Fabric Protectant', 'General Purpose Adhesive', 'Contact Adhesive', 'Vinyl/Fabric/Leather/Polycarbonate

> Coating', 'Rubber and Vinyl Protectant', 'Fabric Refresher', products solely for deodorizing, or sealant products with adhesive properties used to create external protective layers greater than two millimeters thick. 35 Ill. Adm. Code 223.203; *see* ISOR at VI-100; Model Rule at 10.

Leather substrates include both "smooth leather and rough leather, such as suede, nubuck, and roughout. Footwear substrates include leather and non-leather material, such as fabric." ISOR at VI-100. These products include shoe polish that shines and protects footwear, cleaners that clean footwear and leather articles, and conditioners that soften and preserve leather. *Id*. at VI-101. Specialized products include those "to stretch tight-fitting footwear to loosen them for a better fit, dedicated dye products for leather and associated dye reducers used for permanent coloring, products to 'dress' the edges of soles and heels of footwear, and products to remove scuff marks from footwear." *Id*. Users include households, outdoor enthusiasts, and workers in particular professions and commercial establishments, who apply these products to their own clothing and other leather goods. *Id*. Commercial uses include shoe repair and shining, saddler and stable operation, and automotive detailing. *Id*. These products are sold both in general sales outlets such as supermarkets and drug stores and in specialized outlets such as shoe and auto supply stores. *Id*.

Use of these products depends on form. "[S]uede and nubuck cleaners are generally aerosols" wiped clean before brushing. ISOR at VI-101. Solid hard-paste shoe polish is applied to footwear, allowed to dry, and then buffed. *Id*. Conditioners generally are liquids applied to leather and allowed to penetrate its surface. *Id*.

Footwear and leather care products include a variety of ingredients matching their range of functions. Active ingredients may include such hard or protective substances as "carnauba wax; paraffin wax; microcrystalline wax; beeswax; shellac wax; and resins. . . ." ISOR at VI-102. Milder ingredients may include glycerin cleaners or lanolin. *Id*. "Carriers and other ingredients may include organic and hydrocarbon solvents; emulsifiers; water; plasticizers; and propellants for aerosols." *Id*. Different ingredients require different amounts and types of solvents for delivery. *Id*. Cleaners vary widely in terms of their amounts and types of solvents. *Id*. Within product categories or product forms, VOM content may also vary widely. *Id*.

The Agency's original proposal establishes VOM content limits according to three forms of these products, and the Board separately addresses those three forms in the following subsection of the opinion.

Aerosol

"Aerosol products include cleaners for suede and nubuck, cleaners for athletic shoes, and miscellaneous products." ISOR at VI-102. For suede and nubuck cleaners, VOM content ranges from 85 percent to 100 percent. *Id*. "Current formulations contain predominantly hydrocarbon solvents, along with organic solvents and hydrocarbon or carbon dioxide propellant." *Id*. The hydrocarbon solvents used may be heptanes, petroleum distillates such as mineral spirits or aliphatic petroleum distillates, and toluene. *Id*. Organic solvents employed in these products "include compounds such as butyl acetate, ethyl acetate, or isopropyl alcohol. . . ." *Id*.

Propellants include either hydrocarbons or carbon dioxide. *Id*. To a very limited extent, cleaners in this category employ perchloroethyene, a chlorinated solvent. ISOR at VI-102 - VI-103; *see* Prop. at 35 (proposed Section 223.211); *see also* Model Rule at 28.

For aerosol athletic shoe cleaners, VOM content ranges from 10 percent to 20 percent. ISOR at VI-103. Current formulations contain 75 percent to 90 percent water and use cleaning agents such as glycol ethers, alcohols, d-limonene, or a combination of them. Hydrocarbons are a possible propellant. *Id*. For cleaners of other products, VOM content varies from 0 percent to 45 percent. *Id*.

Solid

The Board's VOM regulations define "solid" to mean "a substance or mixture of substances that, either whole or subdivided (such as the particles comprising a powder), is not capable of visually detectable flow as determined under ASTM D4359-90, incorporated by reference in Section 223.120, or an equivalent method approved by the California Air Resources Board." 35 Ill. Adm. Code 223.203; *see* Model Rule at 17. Among solid products in this subcategory, hard paste shoe polishes have a VOM content ranging from 60 percent to 75 percent. ISOR at VI-103. Petroleum distillate solvents, including mineral spirits, aliphatic hydrocarbons, or stoddard solvents, account for nearly all of this content. *Id*. "These solvents enable the main ingredient waxes to be softened and formed into paste with the correct consistency, stability, and performance characteristics." *Id*.

With other solid products, the VOM content ranges from 0 percent to 25 percent. ISOR at VI-103. Other products in this subcategory include conditioners in paste form and solid cleaners such as saddle soap. *Id*. Some paste conditioners or shoe creams may be semi-solid rather than solid. *Id*. The Board's VOM regulations define "semi-solid" to mean "a product that, at room temperature, will not pour, but will spread or deform easily, including but not limited to gels, pastes, and greases." 35 Ill. Adm. Code 223.203; *see* Model Rule at 17. "[P]roducts that are "semi-solids," including "shoe creams" that meet the definition of the form, would be in the "all other forms" subcategory." ISOR at VI-103.

Other Forms

Liquid products constitute 92 percent of the "all other forms" subcategory, and few of them are sold in pump sprays. ISOR at VI-104. VOM content of these products ranges from 0 percent for water-based cleaners to 100 percent for VOM-based dyes and dye reducers. *Id*. Other liquid products in this subcategory include protectants, polishes, dressings, lotions, and products that remove scuff marks. *Id*. "Semi-solids" include shoe creams, which are generally emulsions having water content of 30-50 percent, "making them softer and easier to apply than hard-paste polish." *Id*. These products have a VOM content of 10 percent to 30 percent. *Id*. Other creams may employ low vapor pressure VOM, rather than water, but have similar VOM content. *Id*.

Graffiti Remover

The Board's VOM regulations define "graffiti remover" to mean

> a product labeled to remove spray paint, ink, marker, crayon, lipstick, nail polish, or shoe polish from a variety of non-cloth or nonfabric substrates. The term does not include 'Paint Remover or Stripper', 'Nail Polish Remover', or 'Spot Remover'. Products labeled for dual use as both a paint stripper and graffiti remover are considered 'Graffiti Removers'. 35 Ill. Adm. Code 223.203; *see* ISPR at VI-109; Model Rule at 11.

Products in this category are intended for both indoor and outdoor use and are used by both households and institutions. ISOR at VI-109. Graffiti removers generally are sold in janitorial supply stores and may also be found in paint supply stores. *Id*. They "work by penetrating and dissolving unwanted graffiti and/or markings, while doing little or no damage to the painted surface underneath." *Id*. This distinguishes them from "paint remover or stripper," which may damage the underlying paint substrate. *Id*. Users spray graffiti remover onto a surface and allow it to sit. *Id*. The sprayed surface is then either rubbed with a cloth or abrasive sponge, depending on the nature of the surface. *Id*.

Both aerosol and non-aerosol graffiti removers typically consist of "a variety of solvents such as D-limonene, alcohol, xylene, and n-methyl-2-pyrrolidone (NMP)." ISOR at VI-110. Both also often contain an aromatic hydrocarbon solvent. *Id*. at VI-111. Water-based non-aerosol products are available, and some non-aerosol products employ dibasic ester mixtures or glycol ethers. *Id*. Use of aromatic hydrocarbon solvents, hydrocarbon propellant, and alcohols cause aerosol products to have high VOM content. *Id*. However, "[a]lcohols are useful in cutting, or dissolving, other markings like crayon, ink, or lipstick without damaging the underlying painted surface." *Id*.

Hair Styling Product

The Board's VOM regulations define "hair styling product" as

> a consumer product manufactured on or after July 1, 2009 that is designed or labeled for application to wet, damp or dry hair to aid in defining, shaping, lifting, styling and/or sculpting of the hair. This includes, but is not limited to, hair balm, clay, cream, creme, curl straightener, gel, liquid, lotion, paste, pomade, putty, root lifter, serum, spray gel, stick, temporary hair straightener, wax, spray products that aid in styling but do not provide finishing of a hairstyle, and leave-in volumizers, detanglers and/or conditioners that make styling claims. This does not include 'Hair Mousse', 'Hair Shine', 'Hair Spray', or shampoos and/or conditioners that are rinsed from the hair prior to styling. For the purposes of this Subpart, 'finish' or 'finishing' means the maintaining and/or holding of previously styled hair for a period of time. For the purposes of this Subpart, 'styling' means forming, sculpting, or manipulating the hair to temporarily alter

> the hair's shape. 35 Ill. Adm. Code 223.203; *see* ISOR at VI-113 - VI-114; Model Rule at 12.

This category "does not include the product form of 'foam,'" which falls under the category of "hair mousse." ISOR at VI-113. Although hair mousses are excluded from this category, "there are non-aerosol, pump-actuated, foaming hair styling products currently available in the market." ISOR at VI-114. Because they are non-aerosol, they do not fall under the definition of "hair mousse" and would be subject to the limits applicable to this category for the pump form. *Id*.; *see* 35 Ill. Adm. Code 223.203.

Products in this category are available for personal use and for commercial use in businesses such as hair styling salons. ISOR at V-114. These products are sold in retail establishments including discount, department, drug, and grocery stores. *Id*. They are also available through hair styling salons and on the Internet. *Id*. at VI-114 - VI-115.

The formulation of hair styling products depends on both the form and the desired capabilities of the product. ISOR at VI-115. Because of the range of products available in the market, "there is no exact and/or typical formula for the category." *Id.* Products in this category "may contain a variety of fixatives and/or styling polymers (resins), to provide hold, form films, and/or condition." *Id*. In addition to these resins, products "may contain starches, waxes, and/or other types of compounds to impart hold or help retain the hairstyle." *Id*. In addition, "[t]he majority of products also contain water with other possible ingredients being plasticizers, silicones, lanolin derivatives, various oils and waxes, proteins, plant and/or fruit extracts, fragrance, vitamins, preservatives, pH adjusters, neutralizers, propylene glycol, glycol ethers, and humectants." *Id*. For aerosol products, propellants might include HFC-152a or such hydrocarbons as "butane, dimethyl ether, isobutene, isopentane, or pentane." *Id*. In this category the most common VOMs are ethanol and fragrance. Ethanol may serve either as a solvent for resin or to decrease drying time. *Id*.

In these products, resins may be soluble in either water or alcohol. ISOR at VI-115. Although aqueous-based resins are in wide use, some products still rely on alcohol-based resins. *Id*. "For many of the products using alcohol based resins, the VOC in the product comes from the amount of alcohol needed to keep the resin in solution, or from the resin solution as it is provided from the supplier. . . ." *Id*. They may also employ additional alcohol so that the product dries more quickly on the hair. *Id*. at VI-116. Such products can be more difficult to reformulate to aqueous based resins. *Id*. at VI-115.

Shaving Gel

The Board's VOM regulations define "shaving gel" as "an aerosol product that dispenses a post-foaming semisolid designed to be used with a blade, cartridge razor, or other shaving system in the removal of facial or other body hair. This does not include 'Shaving Cream.'" 35 Ill. Adm. Code 223.203; *see* ISOR at VI-119; Model Rule at 17. These products facilitate shaving by providing lubricity and also by moisturizing the skin. ISOR at VI-119.

Although shaving gels are by definition aerosol products, "they differ from typical aerosol products . . . in that the majority of the shaving gels on the market utilize barrier pack (compartmentalized) systems in which the semi-solid (gel) is separated from the driving propellant." *Id*. at VI-119. The most common types of these systems are the bag-in-can and piston-type barrier-pack, "in which the blowing agents (also called post-foaming agents) and driving propellants are contained in separate chambers or compartments." *Id*. (citation omitted). With shaving creams, on the other hand, the cream concentrate and propellant are mixed and expelled from the container as foam. *Id*.

Barrier packs were developed approximately 50 years ago and may offer a number of advantages. ISOR at VI-121. First, they allow separation of product concentrates from propellants. *Id*. (citation omitted). Second, they allow "use in any orientation (many conventional aerosols lose propellant when inverted)." *Id*. (citation omitted). Also, barrier packs remain quiet during use because they do not generate the hiss associated with typical aerosols. *Id*. (citation omitted).

Two forms of bag-in-can technology are in common use. ISOR at VI-121. In the first, the shaving gel product is injected into a bag before the valve is attached, and the bag is then hermetically sealed. *Id*. "The driving propellant (typically hydrocarbon)is then injected through a hole in the bottom of the can. This type of system can be immediately identified by the presence of a bottom plug (grommet) which is used to contain the propellant." *Id*. (citation omitted). In the second type of this system, the bag is also attached to the valve, and "an under-the-cap gasser is used to add the driving propellant. *Id*. The gel is forced into the bag, via the valve, and the exo-space gas is compressed. Bottom plugs/grommets are absent with this system." *Id*. (citation omitted).

Piston-type barrier-pack systems are also in use. These "consist of a can, open at the bottom, into which a piston is inserted. The bottom, which is perforated with a central hole, is then seamed on." ISOR at VI-121. The can is filled with product through the valve opening before the valve is inserted. *Id*. Because the bottom of the can has a hole, "when the piston is displaced by the product upon filling, any air below the piston is expelled. After the valve is attached, the package is bottom-gassed with propellant and the bottom hole plugged with a grommet." *Id*. at VI-122 (citation omitted). A recently-developed technology, the ATMOS system, consists of a plastic bottle inserted into a rubber tube. *Id*. "When the product is filled into the bottle, the rubber sleeve expands. The sleeve's natural tendency to return to original size provides the propelling power for the system." *Id*.

In the shaving gel category, blowing agents generate a post-foaming effect. ISOR at VI-120. "Once the gel is dispensed and spread, the blowing agent changes from an initial liquid phase to a gas phase, which causes the product to foam." *Id*. Blowing agents employed in this category include pentane, isopentane, and isobutene, with isopentane/isobutene blends most common." *Id*. Propellants expel shaving gels from a container. *Id*. at VI-121. "Shaving gel driving propellants differ from standard aerosol propellants in that they are physically separated from the gel product, rather than being mixed with the product as typical aerosols." *Id*. Propellants used in this category include compressed air, butane, isobutene, and propane, with isobutane and propane/isobutane blends most common. *Id*. Remaining ingredients include

"emollients such as stearic and palmitic acid; surfactants such as triethanolamine and polyethylene glycols; thickeners such as cocamide DEA, hydroxyethylcellulose, and PVP (Polyvinylpyrrolidone); preservatives such as methyl and propyl paraben; moisturiziers such as aloe vera gel; and neutralizer such as triethanolamine." *Id.* Many products also include fragrance and color. *Id.*

Wood Cleaner

The Board's VOM regulations define "wood cleaner" as "a product labeled to clean wooden materials, including but not limited to decking, fences, flooring, logs, cabinetry, and furniture. The term does not include 'Dusting Aid', 'General Purpose Cleaner', 'Furniture Maintenance Product', 'Floor Wax Stripper', 'Floor Polish or Wax', or products designed and labeled exclusively to preserve or color wood. 35 Ill. Adm. Code 223.203; *see* ISOR at VI-139; Model Rule at 20. Generally, this category does not include products that leave protective finishes on a wood surface. Products in this category are often designed to remove built-up polish. ISOR at VI-139.

Wood cleaners are found most often in liquid form but are also available in aerosol and solid form. ISOR at VI-139. Non-aerosol products are usually designated for either indoor or outdoor use on surfaces such as floors, patios, and decks. *Id*. at VI-139, VI-140. "The product is normally diluted, applied to a soiled surface and allowed to set for a few minutes. The surface is then cleaned off with a cloth, mop, abrasive sponge or rinsed off and allowed to dry." *Id*. atVI-140. Water hoses or mechanical sprayers are employed with non-aerosol deck washes. *Id*. Aerosol wood cleaners are used similarly and are generally intended for use indoors on surfaces such as furniture and cabinetry. *Id*.

Households and commercial and industrial establishments all use wood cleaners in both aerosol and non-aerosol forms. ISOR at VI-140. Aerosol formulations are commonly sold in supermarkets and convenience stores, while non-aerosol formulations are sold in janitorial supply businesses, convenience and hardware stores, and supermarkets. *Id*.

Non-aerosol wood cleaners consist mostly of water-based formulations. ISOR at VI-140. Products typically include "water with a small amount of an exempt and/or and inorganic compound." *Id.* Solvent-based non-aerosol wood cleaners "normally consist of hydrocarbon solvent and exempt compounds." *Id*. at VI-141. Aerosol products in this category consist mainly of "mineral spirits, hydrocarbon propellants, and sometimes water." *Id*. (citation omitted).

ESTIMATED VOM EMISSIONS FROM AFFECTED PRODUCT CATEGORIES AND PROJECTED EMISSION REDUCTIONS

The Agency states that consumer and commercial products may contain solvents, evaporation of which causes release of VOM into the atmosphere. TSD at 11. The Agency adds that these emissions "are generally estimated on the basis of VOM content of the products, the average use of these products by people in a given region, and the population in that region." *Id*. For calendar year 2008, the Agency has estimated VOM emissions from all consumer and

commercial products based upon pound per year per capita data and on population estimates. *Id*., citing Inventory.

For the Chicago NAA with a population of 8,542,457, the Agency estimates annual VOM emissions at a rate of 91.60 TPD from consumer and commercial products. The Agency also estimates total annual anthropogenic VOM emissions at a rate of 675.14 TPD. TSD at 11, citing Inventory (Appendix B: 2008 Chicago NAA Emissions by Category). Consumer and commercial products account for 13.56 percent of total anthropogenic VOM emissions. TSD at 11, citing Inventory.

For the Metro East - St. Louis NAA with a population of 585,438, the Agency estimates annual VOM emissions at a rate of 6.31 TPD from consumer and commercial products. The Agency also estimates total annual anthropogenic VOM emission at a rate of 64.39 TPD. TSD at 11, citing Inventory (Appendix C: 2008 Metro East NAA Emissions by Category). Consumer and commercial products account for 9.80 percent of total anthropogenic VOM emissions. TSD at 11, citing Inventory.

For the attainment areas in Illinois with a population of 3,715,059, the Agency estimates annual VOM emissions at a rate of 41.01 TPD from consumer and commercial products. The Agency also estimates total annual anthropogenic VOM emissions at a rate of 652.49 TPD. TSD at 11, citing Inventory (Appendix D: 2008 Attainment Area Emissions by Category). Consumer and commercial products account for 6.28 percent of total anthropogenic VOM emissions. TSD at 11, citing Inventory.

For the entire State of Illinois with a population of 12,842,954, the Agency estimates annual VOM emissions at a rate of 138.92 TPD from consumer and commercial products. The Agency also estimates total annual anthropogenic VOM emissions at a rate of 1,392.02 TPD. TSD at 11, citing Inventory (Appendix A: 2008 Statewide Emissions by Category). Consumer and commercial products account for 9.98 percent of total anthropogenic VOM emissions. TSD at 11, citing Inventory.

The Agency states that "[e]mission data for consumer products is generally estimated on a per capita basis, based on the average usage of a particular product by a person in a given population." TSD at 8. The Agency reports that it estimated emissions for the product categories included in its proposal by using research conducted by CARB and adjusted for the population of Illinois. TSD at 11; *see* ISOR at IV-31 - IV-34 (products survey). CARB estimated 2001 California emissions in tons per day for each of the product categories included in the Agency's proposal. ISOR at IV-33 (Table IV-2: VOC Emissions by Product Category). The Agency estimates that total 2008 annual VOM emissions in Illinois from the product categories addressed in its rulemaking proposal are 2.233 TPD. TSD at 12.

In addition, the Agency projected potential emission reductions resulting from its proposal by using the research conducted by CARB and adjusting this data to reflect the difference in Illinois' population. SR at 5; TSD at 8; *see id*. at 18; *see also* ISOR at IX-211 (Table IX-1: Proposed VOC Limits and Reductions by Product Category). The Agency estimated that "VOM emissions in Illinois may be reduced by approximately one ton per day due

to the proposed amendments and additional regulated categories." Davis Test. at 3. The Agency acknowledges that these projections may over-estimate reduction "due to the penetration of compliant products in the state from manufacturers who market their products in states that have already adopted similar rules." *Id*. at 18; *see id*. at 8.

In the following subsections, the Board separately addresses both the estimated emissions from each of these product categories and the reductions in emissions from them projected to result from the Agency's proposal.

Adhesive Removers

The Agency estimates 2008 annual VOM emissions in Illinois from the adhesive remover product category at rates of 0.011 TPD for gasket or thread locking adhesive removers, 0.113 TPD for general purpose adhesive removers, 0.171 TPD for specialty adhesive removers, and 0.247 TPD for floor or wall covering adhesive removers. TSD at 12 (Table 2: Annual VOM Emissions from Affected Product Categories in Illinois); *see* ISOR at IV-33 (estimating 2001 California emissions of 0.031 TPD, 0.304 TPD, 0.460 TPD, and 0.666 TPD, respectively). Total estimated 2008 Illinois annual VOM emissions from these four subcategories are at a rate of 0.542 TPD. *Id*.

Based on the VOM content limits it proposes, the Agency estimates VOM emission reduction in this category of -0.004 TPD from gasket or thread locking adhesive removers. TSD at 1 (Table 5: Estimated VOM Emission Reductions for Consumer Products); *see* ISOR at VI-65 n.1, IX-211 n.2 (attributing increase to prohibition of specified compounds). The Agency estimates reduction of 0.234 TPD for general purpose adhesive removers. TSD at 18; *see* ISOR IX-211 (projecting reduction of 0.258 TPD). The Agency also estimates reduction of 0.096 TPD for specialty adhesive removers. TSD at 18; *see* ISOR at IX-211 (projecting reduction of 0.138 TPD). Finally, the Agency estimates reduction of 0.051 TPD for floor or wall covering adhesive removers. TSD at 18; *see* ISOR at IX-211 (projecting reduction of 0.630 TPD). The Agency's total estimated net emission reductions from this product category equal 0.377 TPD. TSD at 18.

Anti-Static Products

The Agency estimates 2008 annual VOM emissions in Illinois from the anti-static product category at a rate of 0.102 TPD for aerosol products. TSD at 12; *see* ISOR at IV-33 (estimating 2001 California emissions of 0.275 TPD). The Agency attributes no VOM emissions to non-aerosol anti-static products. TSD at 12; *see* ISOR at IV-33 (same).

Based on the VOM content limit it proposes, the Agency does not project VOM emission reductions from aerosol products in this category. TSD at 18; *see* ISOR at IX-211 (projecting reduction of 0.057 from aerosols and 0.000 from non-aerosols). The Agency offers no projection on reduction of VOM emissions from non-aerosol products. *See* TSD at 18.

Contact Adhesive

The Agency estimates 2008 annual VOM emissions in Illinois from the general purpose contact adhesive category at a rate of 0.026 TPD. TSD at 12; *see* ISOR at IV-33 (estimating 2001 California emissions of 0.070 TPD). The Agency also estimates emissions from the special purpose contact adhesive category at a rate of 0.028 TPD. TSD at 12; *see* ISOR at IV-33 (estimating 2001 California emissions of 0.075 TPD).

Based on the VOM content limits it proposes, the Agency estimates VOM emission reduction in this category of 0.001 TPD from general purpose contact adhesives. TSD at 18; *see* ISOR at IX-211 (projecting reduction of 0.003 TPD). The Agency does not project emission reductions from special purpose contact adhesives. TSD at 18; *see* ISOR at IX-211 n.4 (noting retention of existing limit after separation into subcategories).

Electrical Cleaner

The Agency estimates 2008 annual VOM emissions in Illinois from the electrical cleaner product category at a rate of 0.122 TPD. TSD at 12; *see* ISOR at IV-33 (estimating 2001 California emissions of 0.330 TPD).

Based on the VOM content limit it proposes, the Agency estimates VOM emission reductions in this product category of 0.026 TPD. TSD at 18; *see* ISOR at IX-211 (projecting reduction of 0.070 TPD).

Electronic Cleaner

The Agency estimates 2008 annual VOM emissions in Illinois from the electronic cleaner product category at a rate of 0.089 TPD. TSD at 12; *see* ISOR at IV-33 (estimating 2001 California emissions of 0.241 TPD).

Based on the VOM content limit it proposes, the Agency estimates VOM emission reduction in this product category of 0.018 TPD. TSD at 18; *see* ISOR at IX-211 (projecting reduction of 0.049 TPD).

Fabric Refresher

The Agency estimates 2008 annual VOM emissions in Illinois from the fabric refresher product category at a rate of 0.157 TPD for aerosol products. TSD at 12; *see* ISOR at IV-33 (estimating 2001 California emissions of 0.424 TPD). The Agency also estimates emissions at a rate of 0.247 TPD for non-aerosol products in this category. TSD at 12; *see* ISOR at IV-33 (estimating 2001 California emissions of 0.665 TPD).

Based on the VOM content limits it proposes, the Agency estimates VOM emission reduction of 0.082 TPD for aerosols in this product category. TSD at 18; *see* ISOR at IX-211 (projecting reduction of 0.221 TPD). The Agency also estimates reduction of 0.082 TPD for non-aerosols. TSD at 18; *see* ISOR at IX-211 (projecting reduction of 0.220 TPD).

Footwear or Leather Care Product

The Agency estimates 2008 annual VOM emissions in Illinois from the footwear or leather care product category at rates of 0.019 TPD for aerosol products, 0.065 TPD for solid products, and 0.035 TPD for all other forms. TSD at 12; *see* ISOR at IV-33 (estimating 2001 California emissions of 0.050 TPD, 0.174 TPD, and 0.094 TPD, respectively).

Based on the VOM content limits it proposes, the Agency estimates VOM emission reduction of 0.003 TPD for aerosols in this product category. TSD at 18; *see* ISOR at IX-211 (projecting reduction of 0.008 TPD). The Agency also estimates reduction of 0.014 for solids. TSD at 18; *see* ISOR at IX-211 (projecting reduction of 0.039 TPD). The Agency also estimates reduction of 0.022 TPD for all other product forms in this category. TSD at 18; *see* ISOR at IX-211 (projecting reduction of 0.060 TPD).

Graffiti Remover

The Agency estimates 2008 annual VOM emissions in Illinois from the graffiti remover product category at rates of 0.032 TPD for aerosol products and 0.041 for non-aerosol products. TSD at 12; *see* ISOR at IV-33 (estimating 2001 California emissions of 0.085 TPD and 0.11 TPD, respectively).

Based on the VOM content limits it proposes, the Agency estimates VOM emission reduction of 0.005 TPD for aerosols in this product category. TSD at 18; *see* ISOR at IX-211 (projecting reduction of 0.014 TPD). The Agency also estimates reduction of 0.026 TPD for non-aerosols. TSD at 18; *see* ISOR at IX-211 (projecting reduction of 0.071 TPD).

Hair Styling Product

The Agency estimates 2008 annual VOM emissions in Illinois from the hair styling product category at rates of 0.174 TPD for aerosol and pump spray products and 0.070 TPD for all other forms. TSD at 12; *see* ISOR at IV-33 (estimating 2001 California emissions of 0.468 TPD and 0.190 TPD, respectively).

Based on the VOM content limits it proposes, the Agency estimates VOM emission reduction of 0.150 TPD for aerosols and pump sprays in this product category. TSD at 18; *see* ISOR at IX-211 (projecting reduction of 0.404 TPD). The Agency also estimates reduction of 0.060 TPD for non-aerosols. TSD at 18; *see* ISOR at IX-211 (projecting reduction of 0.163 TPD).

Shaving Gel

The Agency estimates 2008 annual VOM emissions in Illinois from the shaving gel product category at a rate of 0.382 TPD. TSD at 12; *see* ISOR at IV-33 (estimating 2001 California emissions of 1.030 TPD).

Based on the VOM content limit it proposes, the Agency estimates VOM emission reduction of 0.046 TPD in this product category. TSD at 18; *see* ISOR at IX-211 (projecting reduction of 0.124 TPD).

Wood Cleaner

The Agency estimates 2008 annual VOM emissions in Illinois from the wood cleaner product category at rates of 0.020 TPD for aerosol products and 0.084 for non-aerosol products. TSD at 12; *see* ISOR at IV-33 (estimating 2002 California emissions of 0.053 TPD and 0.226 TPD, respectively).

Based on the VOM content limits it proposes, the Agency estimates VOM emission reduction of 0.007 TPD for aerosols in this product category. TSD at 18; *see* ISOR at IX-211 (projecting reduction of 0.019 TPD). The Agency also estimates reduction of 0.086 TPD for non-aerosols. TSD at 18; *see* ISOR at IX-211 (projecting reduction of 0.232 TPD).

TECHNICAL FEASIBILITY

Generally

The Agency expresses the belief that its proposed rules are technically feasible. SR at 5. The Agency states that "technology for controlling VOM emissions from consumer products and aerosol products is largely developed or being developed." *Id*.; *see* TSD at 19. The Agency supports its claim of feasibility by stating that "the proposed emission limits are already in place in California, the OTC states," as well as in Indiana, Michigan, and Ohio. TSD at 8, 13, 14. The Agency elaborates that, because of adoption in these jurisdictions accounting for nearly half of the U.S. population, "compliant products in all categories are widely available. . . ." TSD at 13; *see* SR at 5; Davis Test. at 3. The Agency claims that many products sold in Illinois already comply with the proposed VOM content limits. TSD at 13; SR at 5. The Agency attributes this to "national and regional manufacturers of these products making a one-time change to the products in order to be compliant with the most stringent rules in the country and selling the same product nationally." TSD at 13; *see* SR at 5. As further support for its claim of feasibility, the Agency relied on technical support prepared by CARB for recent amendments to California's rules. SR at 5; *see* ISOR at III-12 - III-13, VI-58 - VI-142.

The Agency argues that the most effective ways to meet the proposed VOM content limits in the affected product categories "are reformulating products currently employing VOM solvents and replacing them with water based formulations or formulations employing acetone or other exempt solvents." TSD at 13. The Agency also claims that manufacturers may be able to comply by "increasing the solids content of products, formulating non-VOM propellants for products, or changing the valves, containers, or delivery systems of the products. . . ." *Id*. The Agency argues that, because manufacturers have modified products to comply with identical standards in other jurisdictions, these reformulations could be made, or have already been made, for products sold in Illinois. *Id*. at 14. The Agency claims that "compliant products have been shown to be effective in their purpose, and have not significantly changed the usefulness of the product by reducing VOM content, or by using a substitute solvent in the product. *Id*. at 19.

In the following subsection of its opinion, the Board for each product category addresses the technical feasibility of complying with the Agency's proposal.

Adhesive Removers

The Agency's proposal includes for this product category both VOM content limits in Section 223.205 and a prohibition on the use of solvents including methylene chloride in Section 223.211. Prop. at 28, 35; *see* ISOR VI-69. In addition, because of ambiguous labels on multi-function products, existing regulations apply additional labeling requirements to adhesive remover products. ISOR at VI-69; *see* 35 Ill. Adm. Code 223.265. For each product, manufacturers and responsible parties must clearly display the category to which the product belongs and the applicable VOM standard. 35 Ill. Adm. Code 223.265(a); *see* ISOR at VI-69.

The Agency's proposed VOM content limits are likely to increase the use of LVP-VOM solvents and water emulsion formulations. ISOR at VI-66; *see* 35 Ill. Adm. Code 223.203 (definitions). The market now includes products containing LVP-VOM solvents that meet the proposed limits. ISOR at VI-66. These LVP-VOMs "can be used for a variety of applications." *Id*. (citations omitted). In addition, bio-based solvents such as ethyl lactate and soy methyl esters have become increasingly competitive as alternatives to petroleum solvents. *Id*. (citations omitted). They are compatible with various propellants and "can often be used as a drop in replacement for many traditional solvents." *Id*. (citation omitted). Producers may also reformulate these products by using acetone, an exempt solvent. *Id*. To replace the use methylene chloride, manufacturers may rely upon a combination of ethyl lactate, methyl esters, and LVP-VOM solvents. *Id*. at VI-67.

Floor or Wall Covering Adhesive Remover

Reformulation of products in this subcategory may include the use of water emulsions, LVP-VOM solvents, or exempt or inorganic ingredients. ISOR at VI-67. Increasing water or acetone content is expected because it is a relatively inexpensive option. *Id*. In this subcategory, it may become necessary to add inorganic ingredients such as wax, formic acid, or potassium hydroxide "to aid in product penetration or lifting of the adhesive." *Id*. Also, "[a]erosol products may reformulate using carbon dioxide." *Id*.

General Purpose Adhesive Remover

Based on the VOM content limits proposed for this subcategory, these products are expected to contain up to 20 percent VOM hydrocarbon solvents, glycol ethers, 2-butoxyethanol, or bio-solvents. ISOR at VI-67. LVP-VOMs, soy methyl ethers, LVP-glycol ethers, LVP-hydrocarbon solvents, and water emulsions may comprise the remainder of the formulations. *Id*. In addition, "inorganic ingredients or surfactants may be required to enhance product performance." *Id*. Aerosol products in this subcategory may use carbon dioxide or hydrocarbon propellants. *Id*.

Special Purpose Adhesive Remover

This subcategory poses the challenge of removing adhesives without damaging painted surfaces. ISOR at VI-68. Although some ingredients used to reduce VOM content have been reported to damage surfaces, dibasic esters, LVP-VOM solvents, acetone, and low concentrations of inorganics "can be used on painted surfaces without causing damage." *Id*. Nonetheless, VOM ingredients are likely to comprise a large part of the formulation of these products. *Id*. However, a number of reformulation options blend well with traditional solvents and have proven to be effective in removing various adhesives. *Id*. Water may be a suitable element in some formulations, but some adhesives cure when exposed to water. *Id*.

Gasket of Thread Locking Adhesive Remover

As a result of the proposed prohibition on the use of chlorinated solvents in this category, VOM emissions are likely to increase slightly in this subcategory. ISOR at VI-65 n.1 (Table VI-2). To replace the use of solvents such as methylene chloride, reformulations may rely on xylenes or similar aromatics, as well as blends of ethyl lactate and soy methyl ethers. ISOR at VI-68. Aerosol products in this subcategory are likely to continue to employ hydrocarbon propellants. *Id*. Hydrocarbons can be formulated to a range of pressures, which is significant to an application in which the force of aerosol delivery increases product penetration of the adhesive. *Id*. Products in this subcategory may also include other ingredients including dibasic esters, LVP-VOM hydrocarbon solvents, acetone and exempt ingredients including wax, formic acid, and surfactants. *Id*.

Anti-Static Products

The Agency proposes only a VOM content limit of 11 percent for non-aerosol products in this category. Prop. at 29; *see* Model Rule at 21 (same). CARB reported in 2004 that all non-aerosol products complied with the proposed limit, making reformulation unnecessary. ISOR at VI-74. Establishing this cap, however, will prevent manufacturers from employing higher amounts of VOM in the future. ISOR at VI-75. Non-aerosol products are able to use low-VOM formulations "because they are typically not used on clothing, which not only needs a fast dry time but needs to be non-staining to be effective." *Id*.

Aerosol products pose the challenge of balancing VOM content with issues such as drying time, staining, and prevention of static charges. ISOR at VI-74. Additional water could extend drying time or affect types of surfaces on which a product can be used. *Id*. (citation omitted). Exempt compounds such as acetone may damage substrates such as fabric. *Id*. LVP-VOM may cause residue, odor, and slow drying times. *Id*. While some of these difficulties may be mitigated by particular propellants (*id*.), the Agency has not proposed a VOM content limit for aerosol formulations in this product category. *See* Prop. at 29; Model Rule at 29.

Contact Adhesives

The Agency's proposal for this product category includes both VOM content limits in Section 223.205 and a prohibition on the use of solvents including methylene chloride in Section

223.211. Prop. at 28, 35; *see* ISOR VI-80 - VI-81. In addition, because of the difficulty of distinguishing subcategories of these products, existing regulations apply additional labeling requirements to adhesive removers. ISOR at VI-83; *see* 35 Ill. Adm. Code 223.265. For each product, manufacturers and responsible parties must clearly display the category to which the product belongs and the applicable VOM standard. 35 Ill. Adm. Code 223.265(a); *see* Model Rule at 28; ISOR at VI-83.

The Agency proposes a VOM content limit of 80 percent for special purpose contact adhesives. Prop. at 29; *see* Model Rule at 21. CARB determined that all products in this subcategory complied with the limit and that no emission reductions would result from it. ISOR at VI-82 (Table VI-6: Contact Adhesive Proposal). The Agency does not project emission reductions from special purpose contact adhesives. TSD at 18; *see* ISOR at IX-211 n.4 (noting existing limit applied to new subcategory).

The Agency proposes a VOM content limit of 55 percent for general purpose contact adhesives. Prop. at 29; *see* Model Rule at 21. CARB determined that 80 percent of products in this subcategory complied with the proposed limit. ISOR at VI-82. Consequently, CARB expected that products would require little, if any, reformulation. *Id*. at VI-81. Low-VOM solvent-based contact adhesives typically would employ either exempt solvents such as acetone or chlorinated solvents. *Id*. at VI-80. However, acetone may harm some substrates and can subject products to the requirements of the Federal Hazardous Substances Act. *Id*., citing 16 C.F.R. 1302 (Ban of Extremely Flammable Contact Adhesives). In addition, the Agency has proposed to prohibit use of chlorinated solvents in this product category. Prop. at 35 (proposed Section 223.211(a)). Furthermore, manufacturers have indicated that water-based solvents may corrode some substrates and are not satisfactory for retail or household uses. ISOR at VI-81. CARB characterized the proposed 55 percent VOM limit as a cap on current content. *Id*. at VI-82.

Electrical Cleaner

The Agency's proposal for this product category includes both VOM content limits in Section 223.205 and a prohibition on the use of solvents including methylene chloride in Section 223.211. Prop. at 30, 35; *see* ISOR VI-93 - VI-94. In addition, because of the difficulty of distinguishing subcategories of these products, existing regulations apply additional labeling requirements to adhesive removers. ISOR at VI-93; *see* 35 Ill. Adm. Code 223.265. For each product, manufacturers and responsible parties must clearly display the category to which the product belongs and the applicable VOM standard. 35 Ill. Adm. Code 223.265(a); *see* Model Rule at 28-29; ISOR at VI-93 - VI-94.

The VOM content limit of 45 percent proposed for this category "is designed to be consistent with that of 'General Purpose Degreaser' (aerosol) as well as 'Engine Degreaser.'" ISOR at VI-91. Reformulation of products in the category may rely upon water, acetone, other exempt VOMs, and LVP-VOM. *Id*.

Electronic Cleaner

The Agency's proposal for this product category includes both VOM content limits in Section 223.205 and a prohibition on the use of solvents including methylene chloride in Section 223.211. Prop. at 30, 35; *see* ISOR VI-93 - VI-94. In addition, because of the difficulty of distinguishing subcategories of these products, existing regulations apply additional labeling requirements to adhesive removers. ISOR at VI-93; *see* 35 Ill. Adm. Code 223.265. For each product, manufacturers and responsible parties must clearly display the category to which the product belongs and the applicable VOM standard. 35 Ill. Adm. Code 223.265(a); *see* Model Rule at 28; ISOR at VI-93.

The VOM content limit of 75 percent proposed for this category allows continued use of alcohol. ISOR at VI-91. Generally, it is necessary for these cleaners to dry rapidly without leaving a residue or damaging the substrate. *Id*. Other than alcohol, few VOM alternatives satisfy these requirements. *Id*. While CARB determined that a majority of products in this category complied with the proposed limit, many used solvents such as HCFC-141b, use of which is being phased out. *Id*. Consequently, the proposed limit allows for the use of other technologies as it is replaced. *Id*. Because of the risk of damage to substrates, products in this category do not rely on chlorinated solvents. *Id*.

Fabric Refresher

For aerosol fabric refreshers, the main ingredients are water, fragrance, hydrocarbon propellant, and inorganic compounds. ISOR at VI-99. To the extent that they contain emulsifiers, which allow fragrances to be discharged with water from a container, those usually are LVP-VOMs. *Id*. In any reformulation of these products, hydrocarbon propellants are likely to be replaced or mixed with a non-VOM propellant such as HFC-152a. *Id*. "A manufacturer may also consider reformulating double-phase aerosol product through the use of high vapor pressure propellant" and exempt VOM solvent. *Id*. citation omitted).

CARB determined that nearly all non-aerosol products in this category comply with the proposed VOM content limits of six percent. ISOR at VI-98 (Table VI-10: Fabric Refresher Proposal). Nonetheless, CARB did not propose a lower limit because of an existing patent held by Proctor & Gamble. *Id.* (referring to U.S. Patent 6,077,318, Method of using a composition for reducing malodor impression, June 20. 2000). For non-aerosols, reformulation generally would replace or reduce alcohol content by increasing water content. *Id*. The proposed limit of six percent VOM content would allow a sufficient amount of VOM "to be present for effective solubilization of the fragrance compounds and satisfactory drying time." *Id*. at VI-99.

Footwear or Leather Care Product

Aerosols

The VOM content limit of 75 percent proposed for this subcategory "is expected to mainly affect cleaners for suede and nubuck." ISOR at VI-105. Reformulation may involve substitution of hydrocarbon propellants with exempt propellants or blends of the two. *Id*. Use of

carbon dioxide propellant would still require additional reformulation, which might include substitution or partial substitution of hydrocarbon solvents with exempt solvents such as acetone or volatile methylated siloxanes. *Id*.

Solids

The VOM content limit of 55 percent proposed for this subcategory "is expected mainly to affect hard-paste shoe polishes." ISOR at VI-105. Because these products may be sold in a range of colors, "each colored product may need individual reformulation." *Id*. (citation omitted). Reformulation may include substitution of petroleum distillate solvents with LVP-VOM solvents, exempt solvents, or combinations of the two. *Id*.

All Other Forms

For high-VOM liquid products such as dyes, the ingredients may include alcohol and hydrocarbon or other solvents. IOR at VI-106. "One reformulation approach is to convert to water-based or pigment dye formulations." *Id*.

For semi-solids such as shoe creams, reformulation may include substitution of petroleum distillate solvents with LVP-VOM solvents, exempt solvents, or a combination of the two. ISOR at VI-106. Because these products may be sold in a range of colors, "each colored product may need individual reformulation." *Id*.

Graffiti Remover

The Agency's proposal for this product category includes both VOM content limits in Section 223.205 and a prohibition on the use of solvents including methylene chloride in Section 223.211. Prop. at 302 35; *see* ISOR VI-112. CARB determined that, in this product category, "[m]any alternatives exist that do not use perchloroethylene, methylene chloride, or trichloroethylene." ISOR at VI-112.

Both aerosol and non-aerosol products are expected to comply with proposed VOM content limits by employing LVP-VOMs or exempt VOMs such as acetone. ISOR at VI-112. CARB cites research concluding that alternatives are as effective as VOM-based products in removing graffiti from various surfaces. *Id*. (citation omitted). Where alternative products leave a residue, labels can instruct users to rinse the surface with water. *Id*.

Hair Styling Product

CARB determined that, in this product category, 62 percent of the market complied with the proposed limit for aerosols and pump sprays, and 93 percent of the market complied with the proposed standard for all other forms. ISOR at VI-116 (Table VI-16: Hair Styling Product Proposal). Manufacturers reported that, "besides the alcohol needed to keep alcohol based resins in solution, additional alcohol for drying should not be necessary in styling products used in wet or damp hair prior to styling." *Id*. at VI-117. CARB found that compliant products "contain the same marketing language, directions and claims" as products with higher VOM content. Id. In

addition, products combining styling and finishing functions would be subject to the higher VOM content limit applicable to hairspray. *Id*. Finally, because the six percent limit proposed for aerosol and pump spray products already applies to hair mousses (35 Ill. Adm. Code 223.205(a)(27)), compliant technology may be transferred from that product category. *See* ISOR at VI-117.

Shaving Gel

CARB determined that products in this category were able to comply with the Agency's proposed VOM content limit of seven percent "by using slightly lower amounts of hydrocarbon propellants," whether as driving propellants or as blowing agents. ISOR at VI-122. Compliance options also include compressed gas or compressed air propellants, blends of VOM and non-VOM propellants, self-pressurized containers, or combinations of these options. *Id*. at VI-123.

Manufacturers reported propellant leakage through a bottom plug or grommet accounts for some use of driving propellant. ISOR at VI-123. "[O]verfill of driving propellant is used to ensure there is enough propellant to empty the container." *Id*. Manufacturers may be able to reduce this overfill by improving grommets to reduce leakage or by using "top-filling, bag-in-can technologies." *Id*. In addition, existing barrier-pack systems use compressed gasses or compressed air as driving propellants. *Id*. (citation omitted). Piston systems can also be adapted to these propellants. *See id*. (citation omitted). Self-pressurized containers also exist. Because no driving propellant is necessary to dispense the shaving gel, these systems may allow manufacturers to limit the VOM content of their products to blowing agents. *Id*.

Wood Cleaner

CARB determined that, for liquid products in this category, 90 percent of the market complied with the proposed VOM content limit. ISOR at VI-141 (Table VI-22: Wood Cleaner Proposal). Deck washes and other outdoor products account for a large proportion of these liquids. *Id*. The force of a sprayer or water hose helps make some of these outdoor products more effective. *Id*. Products used indoor, however, require a higher VOM content in order to be effective. *Id*. CARB reported that "[t]here are no complying aerosol products." *Id*.

In this product category, reformulation options include use of water, and "[t]he majority of the products in this category are water-based." ISOR at VI-142. Other options include ths use of LVP-VOM hydrocarbon solvents, glycol ethers, and dibasic esters. *Id*. at VI-141. These alternatives provide adequate solvency, as drying time is not a factor. *Id*. "Because the product is normally wiped with some form of cloth or sponge or rinsed with water after usage, slow evaporation and slight residue should not be an issue in this category." *Id*.

Board Discussion of Technical Feasibility

As noted above, the Agency claimed that its proposal is technically feasible by stating that "the proposed emission limits are already in place in California, the OTC states," and also in Indiana, Michigan, and Ohio. TSD at 8, 13, 14. The Agency elaborated that, because of adoption in these jurisdictions accounting for nearly half of the U.S. population, "compliant

products in all categories are widely available. . . ." TSD at 13; *see* SR at 5; Davis Test. at 3. The Agency claimed that many products sold in Illinois comply with the proposed VOM limits because manufacturers formulate and manufacture a single product in order to sell it on a national basis. TSD at 13; *see* SR at 5. As further support for its claim of feasibility, the Agency relied on technical support prepared by CARB for recent amendments to California's rules. SR at 5; *see* ISOR at III-12 - III-13, VI-58 - VI-142.

The Board finds that the record does not persuasively challenge the Agency's position that its proposal is technically feasible. Adoption of similar regulations in other jurisdictions and availability of compliant products there lend support to this position. CARB's analysis, which is referenced in the preceding subsections of this opinion, also generally corroborates the Agency's claim. The Board finds that the proposal is technically feasible and proceeds below to examine the record with regard to economic reasonableness.

ECONOMIC REASONABLENESS AND COST EFFECTIVENESS

Generally

The Agency expresses the belief that its proposed rules are economically reasonable. SR at 5. The Agency states that "technology for controlling VOM emissions from consumer products and aerosol products is largely developed or being developed." *Id*.; *see* TSD at 13, 19. The Agency supports its claim of economic reasonableness by stating that "the proposed emission limits are already in place in California, the OTC states," and in Indiana, Michigan, and Ohio. TSD at 8, 13, 14. The Agency elaborates that, because of adoption in these jurisdictions accounting for nearly half of the U.S. population, "compliant products in all categories are widely available. . . ." TSD at 13; *see* SR at 5; TSD at 19; Davis Test. at 3. The Agency claims that many products sold in Illinois already comply with the proposed VOM content limits. TSD at 13; SR at 5. The Agency attributes this to "national and regional manufacturers of these products making a one-time change to the products in order to be compliant with the most stringent rules in the country and selling the same product nationally." TSD at 13; *see* SR at 5; Tr.1 at 11-12.

As further support for its claim of economic reasonableness, the Agency relied on research conducted by CARB on the estimated impact of recent amendments to California's rules on affected businesses. SR at 5; *see* TSD at 15 (Table 3: Estimated Total Costs to Businesses Annually); *see also* ISOR at I-21 - I-23, VIII-174 - VII-206. These impacts include "annualized non-recurring costs and annual recurring costs." SR at 5; *see* TSD at 15. The Agency notes CARB's 2004 estimate "that the proposed limits would cost between $4,020 and $4,680 per ton of VOM reduced." SR at 6, citing TSD at 17; *see* ISOR at VIII-193 (Table VIII-6: Comparison of Cost-Effectiveness for ARB Consumer Product Regulations/Measures (adjusted to 2003 dollars)). Because these amendments have taken effect, the Agency claims that "a significant portion of business impact to manufacturers of the affected products may have already been realized in Illinois." SR at 6; TSD at 15; *see* Davis Test. at 3. Based on these costs, the Agency also estimated per-unit cost increases by product category. SR at 6; *see* TSD at 16 (Table 4: Estimated Per-Unit Cost Increases from Proposed Limits); ISOR at VIII-202; TSD, Appendix E (Summary of Cost Calculations).

The Agency's proposal included an analysis of the economic and budgetary effects of its rulemaking projecting a total statewide cost of $1,600,000. The Agency attributed these costs to changing the formulation or packaging of various products. The Agency again suggested that manufacturers may already have incurred these costs. The Agency indicated that its projected total cost may be high because changes in many cases will not be necessary. The Agency's analysis added that its proposal would have little effect on administrative costs because newly-regulated product categories will be handled through existing procedures under Part 223.

The Agency concludes that its proposal is "a cost effective measure for the reduction of VOM emissions in Illinois." TSD at 17; *see* SR at 6. In the following subsection of its opinion, the Board for each product category addresses the economic reasonableness of the Agency's proposal.

Adhesive Removers

The Agency estimated the total annual costs of complying with the proposed regulations, including annualized non-recurring costs and annual recurring costs, for a typical business in the product category of adhesive removers. TSD at 15; *see* ISOR at VIII-181 (Table VIII-2). In the subcategory of gasket or thread locking adhesive removers, the Agency estimated a low cost of $3,942, a mid cost of $10,212, and a high cost of $16,483. TSD at 15; ISOR at VIII-181. In the subcategory of floor or wall covering adhesive remover, the Agency estimated a low cost of $4,085, a mid cost of $15,353, and a high cost of $26,622. TSD at 15; ISOR at VIII-181. In the subcategory of general purpose adhesive remover, the Agency estimated a low cost of $4,192, a mid cost of $12,663, and a high cost of $21,134. TSD at 15; ISOR at VIII-181. Finally, in the subcategory of specialty adhesive removers, the Agency estimated a low cost of $4,204, a mid cost of $18,047, and a high cost of $31,890. TSD at 15; ISOR at VIII-181.

The Agency also estimated a per-unit cost increase for the adhesive remover product category based on annualized non-recurring costs and annual recurring costs. TSD at 16; ISOR at VIII-202. For the subcategory of gasket or thread locking adhesive removers and based on a typical unit weight of 18.00 ounces, the Agency estimated a low total increase per unit of $0.84, a mid total increase per unit of $0.95, and a high total increase per unit of $1.07. TSD at 16; ISOR at VIII-202. For the subcategory of floor or wall covering adhesive removers and based on a typical unit weight of 100.00 ounces, the Agency estimated a low total increase per unit of $0.03, a mid total increase per unit of $0.74, and a high total increase per unit of $1.46. TSD at 16; ISOR at VIII-202. For the subcategory of general purpose adhesive removers and based on a typical unit weight of 9.00 ounces, the Agency estimated a low total increase per unit of $0.22, a mid total increase per unit of $0.17, and a high total increase per unit of $0.11.[5] TSD at 16; ISOR at VIII-202. For the subcategory of specialty adhesive removers and based on a typical unit weight of 18.00 ounces, the Agency estimated a low total increase per unit of $0.37, a mid

[5] Based on annualized nonrecurring low cost per unit of $0.03, CARB projected annual recurring low cost per unit of $0.19. Based on annualized nonrecurring high cost per unit of $0.11, CARB projected annual recurring high cost per unit of $0.00. ISOR at VIII-202; TSD at 16.

total increase per unit of $0.22, and a high total increase per unit of $0.07.[6] TSD at 16; ISOR at VIII-202.

Anti-Static Products

For non-aerosol products in the anti-static product category, neither CARB nor the Agency estimated the total annual costs of complying with the proposed regulations. TSD at 15; ISOR at VIII-181. CARB reported that its market survey determined that 100 percent of products complied with the proposed standard. ISOR at VIII-181.

For non-aerosol products in the anti-static product category, neither CARB nor the Agency estimated a total per-unit cost increase. TSD at 16; ISOR at VIII-202. CARB reported that that its market survey determined that all products in the market comply with the proposed limit and that no reformulation of them would be necessary. ISOR at VIII-202.

Contact Adhesives

The Agency estimated the total annual costs of complying with the proposed regulations, including annualized non-recurring costs and annual recurring costs, for a typical business in the product category of contact adhesives. TSD at 15; *see* ISOR at VIII-181. In the subcategory of general purpose contact adhesives, the Agency estimated a low cost of $1,669, a mid cost of $1,713, and a high cost of $1,757. TSD at 15; ISOR at VIII-181. In the subcategory of special purpose adhesives, the Agency estimated a low cost of $487, a mid cost of $1,492, and a high cost of $2,498. TSD at 15; ISOR at VIII-181.

The Agency also estimated a per-unit cost increase for the contact adhesive product category based on annualized non-recurring costs and annual recurring costs. TSD at 16; ISOR at VIII-202. For the subcategory of general purpose contact adhesives and based on a typical unit weight of 4.32 ounces, the Agency estimated a low total increase per unit of $0.05, a mid total increase per unit of $0.06, and a high increase per unit of $0.07. TSD at 16; ISOR at VIII-202. For the subcategory of special purpose contact adhesives and based on a typical unit weight of 13.84 ounces, the Agency estimated a low total increase per unit of $0.00, a mid total increase per unit of $0.01, and a high total increase per unit of $0.01. TSD at 16; ISOR at VIII-202.

Electrical Cleaner

The Agency estimated the total annual costs of complying with the proposed regulations, including annualized non-recurring costs and annual recurring costs, for a typical business in the product category of electrical cleaner. TSD at 15; ISOR at VIII-181. The Agency estimated a low cost of $8,191, a mid cost of $9,319, and a high cost of $10,449. TSD at 15; ISOR at VIII-181.

---

[6] Based on annualized nonrecurring low cost per unit of $0.02, CARB projected annual recurring low cost per unit of $0.35. Based on annualized nonrecurring high cost per unit of $0.07, CARB projected annual recurring high cost per unit of $0.00. ISOR at VIII-202; TSD at 16.

The Agency also estimated a per-unit cost increase for the electrical cleaner product category based on annualized non-recurring costs and annual recurring costs. TSD at 16; ISOR at VIII-202. Based on a typical unit weight of 12.00 ounces, the Agency estimated a low total increase per unit of $0.03, a mid total increase per unit of $0.04, and a high total increase per unit of $0.04. TSD at 16; ISOR at VIII-202.

Electronic Cleaner

The Agency estimated the total annual costs of complying with the proposed regulations, including annualized non-recurring costs and annual recurring costs, for a typical business in the product category of electronic cleaner. TSD at 15; ISOR at VIII-181. The Agency estimated a low cost of $7,321, a mid cost of $17,637, and a high cost of $27,953. TSD at 15; ISOR at VIII-181.

The Agency also estimated a per-unit cost increase for the electronic cleaner product category based on annualized non-recurring costs and annual recurring costs. TSD at 16; ISOR at VIII-202. Based on a typical unit weight of 12.00 ounces, the Agency estimated a low total increase per unit of $0.08, a mid total increase per unit of $0.19, and a high total increase per unit of $0.30. TSD at 16; ISOR at VIII-202.

Fabric Refresher

The Agency estimated the total annual costs of complying with the proposed regulations, including annualized non-recurring costs and annual recurring costs, for a typical business in the product category of fabric refresher. TSD at 15; ISOR at VIII-181. For the aerosol product form, the Agency estimated a low cost of $5,743, a mid cost of $11,226, and a high cost of $16,708. TSD at 15; ISOR at VIII-181. For the non-aerosol product form, the Agency estimated a low cost of $5,743, a mid cost of $7,049, and a high cost of $8,354. TSD at 15; ISOR at VIII-181.

The Agency also estimated a per-unit cost increase for the fabric refresher product category based on annualized non-recurring costs and annual recurring costs. TSD at 16; ISOR at VIII-202. For the aerosol product form and based on a typical unit weight of 14.00 ounces, the Agency estimated a low total increase per unit of $0.17, a mid total increase per unit of $0.17, and a high increase per unit of $0.16. TSD at 16; ISOR at VIII-202. For the non-aerosol product form and based on a typical unit weight of 32.00 ounces, the Agency estimated a low total increase per unit of $0.03, a mid total increase per unit of $0.04, and a high total increase per unit of $0.05. TSD at 16; ISOR at VIII-202.

Footwear or Leather Care Product

The Agency estimated the total annual costs of complying with the proposed regulations, including annualized non-recurring costs and annual recurring costs, for a typical business in the footwear or leather care product category. TSD at 15; ISOR at VIII-181. For the aerosol product form, the Agency estimated a low cost of $3,542, a mid cost of $6,435, and a high cost

of $9,329. TSD at 15; ISOR at VIII-181. For the solid product form, the Agency estimated a low cost of $3,048, a mid cost of $5,241, and a high cost of $7,434. TSD at 15; ISOR at VIII-181. For all other product forms, the Agency estimated a low cost of $6,080, a mid cost of $11,055, and a high cost of $16,030. TSD at 15; ISOR at VIII-181.

The Agency also estimated a per-unit cost increase for the footwear or leather care product category based on annualized non-recurring costs and annual recurring costs. TSD at 16; ISOR at VIII-202. For the aerosol product form and based on a typical unit weight of 4.25 ounces, the Agency estimated a low total increase per unit of $0.03, a mid total increase per unit of $0.05, and a high increase per unit of $0.07. TSD at 16; ISOR at VIII-202. For the solid product form and based on a typical unit weight of 1.13 ounces, the Agency estimated a low total increase per unit of $0.00, a mid total increase per unit of $0.00, and a high total increase per unit of $0.00. TSD at 16; ISOR at VIII-202. For all other product forms, the Agency estimated a low total increase per unit of $0.02, a mid total increase per unit of $0.04, and a high total increase per unit of $0.06. TSD at 16; ISOR at VIII-202.

Graffiti Remover

The Agency estimated the total annual costs of complying with the proposed regulations, including annualized non-recurring costs and annual recurring costs, for a typical business in the graffiti remover product category. TSD at 15; ISOR at VIII-181. For the aerosol product form, the Agency estimated a low cost of $4,783, a mid cost of $11,472, and a high cost of $18,160. TSD at 15; ISOR at VIII-181. For the non-aerosol product form, the Agency estimated a low cost of $3,236, a mid cost of $6,767, and a high cost of $10,297. TSD at 15; ISOR at VIII-181.

The Agency also estimated a per-unit cost increase for the graffiti remover product category based on annualized non-recurring costs and annual recurring costs. TSD at 16; ISOR at VIII-202. For the aerosol product form and based on a typical unit weight of 17.00 ounces, the Agency estimated a low total increase per unit of $0.15, a mid total increase per unit of $0.31, and a high total increase per unit of $0.46. TSD at 16; ISOR at VIII-202. For the non-aerosol product form and based on a typical unit weight of 128.75 ounces, the Agency estimated a low total increase per unit of $0.64, a mid total increase per unit of $1.33, and a high total increase per unit of $2.03. TSD at 16; ISOR at VIII-202.

Hair Styling Product

The Agency estimated the total annual costs of complying with the proposed regulations, including annualized non-recurring costs and annual recurring costs, for a typical business in the hair styling product category. TSD at 15; ISOR at VIII-181. For the aerosol and pump spray product forms, the Agency estimated a low cost of $3,225, a mid cost of $5,554, and a high cost of $7,883. TSD at 15; ISOR at VIII-181. For all other product forms, the Agency estimated a low cost of $6,730, a mid cost of $11,591, and a high cost of $16,452. TSD at 15; ISOR at VIII-181.

The Agency also estimated a per-unit cost increase for the hair styling product category based on annualized non-recurring costs and annual recurring costs. TSD at 16; ISOR at VIII-

202. For the aerosol and pump spray product forms and based on a typical unit weight of 14.50 ounces, the Agency estimated a low total increase per unit of $0.03, a mid total increase per unit of $0.05, and a high total increase per unit of $0.07. TSD at 16; ISOR at VIII-202. For all other product forms and based on a typical unit weight of 12.00 ounces, the Agency estimated a low total increase per unit of $0.00, a mid total increase per unit of $0.00, and a high total increase per unit of $0.00. TSD at 16; ISOR at VIII-202.

Shaving Gel

The Agency estimated the total annual costs of complying with the proposed regulations, including annualized non-recurring costs and annual recurring costs, for a typical business in the shaving gel product category. TSD at 15; ISOR at VIII-181. The Agency estimated a low cost of $7,740, a mid cost of $19,779, and a high cost of $31,819. TSD at 15; ISOR at VIII-181.

The Agency also estimated a per-unit cost increase for the shaving gel product category based on annualized non-recurring costs and annual recurring costs. TSD at 16; ISOR at VIII-202. Based on a typical unit weight of 7.00 ounces, the Agency estimated a low total increase per unit of $0.00, a mid total increase per unit of $0.00, and a high increase per unit of $0.00. TSD at 16; ISOR at VIII-202.

Wood Cleaner

The Agency estimated the total annual costs of complying with the proposed regulations, including annualized non-recurring costs and annual recurring costs, for a typical business in the wood cleaner product category. TSD at 15; ISOR at VIII-181. For the aerosol product form, the Agency estimated a low cost of $2,234, a mid cost of $4,163, and a high cost of $6,092. For the non-aerosol product form, the Agency estimated a low cost of $1,624, a mid cost of $2,953, and a high cost of $4,283. TSD at 15; ISOR at VIII-181.

The Agency also estimated a per-unit cost increase for the wood cleaner product category based on annualized non-recurring costs and annual recurring costs. TSD at 16; ISOR at VIII-202. For the aerosol product form and based on a typical unit weight of 12.00 ounces, the Agency estimated a low total increase per unit of $0.01, a mid total increase per unit of $0.01, and a high total increase per unit of $0.02. TSD at 16; ISOR at VIII-202. For the non-aerosol product category and based on a typical unit weight of 135.98 ounces, the Agency estimated a low total increase per unit of $0.11, a mid total increase per unit of $0.20, and a high total increase per unit of $0.28. TSD at 16; ISOR at VIII-202.

Board Discussion of Economic Reasonableness

As noted above, the Agency has argued that its proposed rules are economically reasonable. SR at 5. The Agency supported its claim by stating that California, the OTC states, Indiana, Michigan, and Ohio have adopted these limits. TSD at 8, 13, 14. Because of this widespread adoption, the Agency claimed that many products sold in Illinois already comply with the proposed VOM content limits. TSD at 13; SR at 5. The Agency attributed this to the

formulation and manufacturing of single products for national sales. TSD at 13; *see* SR at 5; Tr.1 at 11-12.

As further support for its claim of economic reasonableness, the Agency relied on research conducted by CARB on the estimated impact of recent amendments to California's rules on affected businesses. SR at 5; *see* TSD at 15 (Table 3: Estimated Total Costs to Businesses Annually); *see also* ISOR at I-21 - I-23, VIII-174 - VII-206. The Agency noted CARB's 2004 estimate "that the proposed limits would cost between $4,020 and $4,680 per ton of VOM reduced." SR at 6, citing TSD at 17; *see* ISOR at VIII-193 (Table VIII-6: Comparison of Cost-Effectiveness for ARB Consumer Product Regulations/Measures (adjusted to 2003 dollars)). Because these amendments have taken effect, the Agency claims that "a significant portion of business impact to manufacturers of the affected products may have already been realized in Illinois." SR at 6; TSD at 15; *see* Davis Test. at 3. The Agency's proposal projected a total statewide cost of $1,600,000 attributable to changing the formulation or packaging of various products. The Agency again suggested that manufacturers may already have incurred these costs.

The Board finds that the record does not persuasively dispute the Agency's position that its proposal is economically reasonable. This position is supported by the adoption of similar regulations in other jurisdictions and the availability of compliant products there. CARB's analysis, which is referenced in the preceding subsections of this opinion, also lends general support to the Agency's claim. The Board finds that the proposal is economically reasonable and proceeds below to summarize its first-notice proposal on a section-by-section basis.

SECTION-BY-SECTION SUMMARY OF RECORD ON BOARD'S FIRST-NOTICE PROPOSAL

Subpart B: Consumer and Commercial Products

Section 223.201: Applicability

Section 223.201 now provides in its entirety that, "[e]xcept as provided in Section 223.230, this Subpart shall apply to any person who sells, supplies, offers for sale, or manufactures consumer products on or after July 1, 2009, for use in Illinois." 35 Ill. Adm. Code 223.201; *see* 35 Ill. Adm. Code 223.230 (Exemptions); SR at 7.

In its original proposal, the Agency sought to amend this section to provide in its entirety that, "[e]xcept as provided in Section 223.230, unless another date is specified, this Subpart shall apply to any person who sells, supplies, offers for sale, or manufactures consumer products on or after July 1, 2009, for use in Illinois." Prop. at 2. The Agency also proposed to add to Section 223.205(a) VOM content limits with an effective date of July 1, 2012, for a number of new categories of consumer products. SR at 7; *see* Prop. at 28-34; *infra* at __-__ (summarizing proposed limits). The Agency's proposal re-organizes Section 223.205(a) as a table with one column setting an effective date of July 1, 2009, for product categories regulated by the existing rule and a second column setting an effective date of July 1, 2012, for product categories added by the current proposal. *See* Prop. at 28-34. The Agency sought to refer to another specified

date in this section in order to clarify that the limits added by this proposal applied only on and after July 1, 2012. *See* Prop. at 28-34.

The Board finds that this amendment clarifies the proposal adding an effective date of July 1, 2012, for specified product categories. The Board includes this amendment in its order below.

Section 223.203: Definitions for Subpart B

Section 223.203 provides definitions applicable to the provisions of Subpart B. 35 Ill. Adm. Code 223.203. The Agency's original proposal amended several definitions. *E.g.* Prop. at 9 ("Deodorant"), 19 ("Metal Polish/Cleanser"); *see* SR at 7. The Agency also sought to add a definition of "Vinyl/Fabric/Leather/Polycarbonate Coating" providing that the term "means a coating designed and labeled exclusively to coat vinyl, fabric, leather, or polycarbonate substrates." Prop. at 26; *see* Model Rule at 19 (same).

Section 223.203 defines "existing product" as "any formulation of the same product category and form sold, supplied, manufactured, or offered for sale in Illinois prior to July 1, 2009, or any subsequently introduced identical formulation." 35 Ill. Adm. Code 223.203. During the second hearing, CSPA proposed to amend this definition, noting that the date of July 1, 2009, refers to "the effective date of the original regulation" and not to the effective date of the Agency's proposed amendments. Tr.2 at 7-8. CSPA proposed to replace "July 1, 2009" with the following language: "the effective date in Section 223.205." Tr. 2 at 8. The Agency's proposal re-organizes Section 223.205(a) as a table with one column setting an effective date of July 1, 2009, for product categories regulated by the existing rule and a second column setting an effective date of July 1, 2012, for product categories added by the current proposal. *See* Prop. at 28-34. CSPA argues that this proposed revision "resolves the problem with citing an inoperative date and would instead refer to a more appropriate date for the new regulations that will be taking effect. . . ." Tr.2 at 8.

The Board concurs in each of these proposed amendments to Section 223.203, which are reflected in its order below. Specifically, the Board finds that record includes no facts or arguments opposing the proposed revision of the definition of "existing product." The Board concludes that this revisions clarifies a term applicable to a range of product categories for which the VOM limits do not have a single effective date.

Section 223.205: Standards

The introductory language to subsection (a) provides in its entirety that, "[e]xcept as provided in Section 223.207, 223.230, 223.240, or 223.245, no person shall sell, supply, offer for sale, or manufacture for sale in Illinois any consumer product manufactured on or after July 1, 2009, that contains VOMs in excess of the limits specified in this subsection." 35 Ill. Adm. Code 223.205(a); *see* 35 Ill. Adm. Code 223.207 (Products Registered under FIFRA [Federal Insecticide, Fungicide, and Rodenticide Act]), 223.230 (Exemptions), 223.240 (Innovative Product Exemption), 223.245 (Alternative Compliance Plans). Section 223.205(a) now provides

VOM content limits for 48 categories of consumer products. *See* 35 Ill. Adm. Code 223.205(a)(1) - (a)(48).

The Agency proposed to amend this introductory language to provide in its entirety that, "[e]xcept as provided in Section 223.207, 223.230, 223.240, or 223.245, no person shall sell, supply, offer for sale, or manufacture for sale in Illinois any consumer product manufactured on or after the date specified below that contains VOMs in excess of the limits specified in this subsection." Prop. at 28; *see* SR at 7. The Agency notes that it proposed VOM content limits for a number of new categories and an effective date of July 1, 2012, for them. SR at 7. The Agency sought to refer to "the date specified" in order to clarify that, while existing limits applied on and after July 1, 2009, newly-added limits apply only on and after July 1, 2012. *See* Prop. at 28-34; *see* SR at 7. The Agency sought to effectuate these revisions by re-organizing Section 223.205(a) as a table with separate columns reflecting the two effective dates. *See* Prop. at 28-34.

Below, the Board separately summarizes each category of consumer products addressed in the record.

Current subsection (a)(1): Adhesives - Spray.

Section 223.205(a)(1) sets VOM limits for three subcategories of "Adhesives - Spray:" mist spray, web spray, and special purpose spray adhesives. 35 Ill. Adm. Code 223.205(a); *see* Yost Test. at 8. CSPA states that "the term "adhesives - spray" is "not defined in either the current regulation or the proposed revisions." Yost Test. at 8. CSPA recommends that the Board instead employ the defined term "Aerosol Adhesives." *Id*. at 10; *see* 35 Ill. Adm. Code 223.205 (definitions). CSPA argues that this revision would make the Board's regulations consistent both with California's regulation and the Model Rule. Yost. Test. at 10, citing CAL. CODE REGS.tit. 17, § 94509(a); Model Rule at 21 (Standards).

During the second hearing, the Board noted that the definition of "aerosol adhesive" specifically excludes mist spray adhesives, web spray adhesives, and special purpose spray adhesives. Tr.2 at 17; *see* 35 Ill. Adm. Code 223.203. CSPA responded that it had suggested this revision to make Illinois' rule more consistent with those of California and the OTC states. Tr.2 at 18. CSPA stated that it had not intended to create any exclusion from the VOM limits for this category and that no problem would result from leaving the rule as it is now in effect. *Id*. Ultimately, Mr. Yost withdrew this recommendation. *Id*. at 18-19. Consequently, the Board does not include it in its order below.

Subsection (a)(1): Adhesive Removers. The Agency sought to add a subsection (a)(1) establishing VOM content limits for four subcategories of adhesive removers. Prop. at 28. Specifically, with an effective date of July 1, 2012, the Agency proposed to limit the "floor or wall covering" subcategory to five percent VOM by weight, the "gasket or thread locking" subcategory to 50 percent VOM by weight, the "general purpose" subcategory to 20 percent VOM by weight, and the "specialty" subcategory to 70 percent VOM by weight. *Id*.; *see* 35 Ill. Adm. Code 223.203 (defining "adhesive remover" and subcategories); *see also* Model Rule at 21 (setting identical limits); ISOR at I-8.

Subsection (a)(4): Adhesives -- Contact. The Agency sought to add a subsection (a)(4) establishing VOM content limits for two subcategories of contact adhesives. Prop. at 29. Specifically, with an effective date of July 1, 2012, the Agency proposed to limit the "general purpose" subcategory to 55 percent VOM by weight and the "special purpose" subcategory" to 80 percent VOM by weight. *Id*.; *see* 35 Ill. Adm. Code 223.203 (defining "contact adhesive - general purpose" and "contact adhesive - special purpose"); *see also* Model Rule at 21 (setting identical limits); ISOR at I-8.

Subsection (a)(9): Anti-Static Product, Non-Aerosol. The Agency sought to add a subsection (a)(9) establishing a VOM content limit for non-aerosol anti-static products. Prop. at 29. Specifically, with an effective date of July 1, 2012, the Agency proposed to limit the category to 11 percent VOM by weight. *Id*.; *see* 35 Ill. Adm. Code 223.203 (defining "anti-static product" and "non-aerosol product"); *see also* Model Rule at 21 (setting identical limit); ISOR at I-8.

Subsection (a)(22): Electrical Cleaner. The Agency sought to add a subsection (a)(22) establishing a VOM content limit for electrical cleaner. Prop. at 30. Specifically, with an effective date of July 1, 2012, the Agency proposed to limit the category to 45 percent VOM by weight. *Id*.; *see* 35 Ill. Adm. Code 223.203 (defining "electrical cleaner"); *see also* Model Rule at 22 (setting identical limit); ISOR at I-8.

Subsection (a)(23): Electronic Cleaner. The Agency sought to add a subsection (23) establishing a VOM content limit for electronic cleaner. Prop. at 30. Specifically, with an effective date of July 1, 2012, the Agency proposed to limit the category to 75 percent VOM by weight. *Id*.; *see* 35 Ill. Adm. Code 223.203 (defining "electronic cleaner"); *see also* Model Rule at 22 (setting identical limit); ISOR at I-8.

Subsection (a)(26): Fabric Refresher. The Agency sought to add a subsection (26) establishing VOM content limits for two subcategories of fabric refresher. Prop. at 31. Specifically, with an effective date of July 1, 2012, the Agency proposed to limit the "aerosol" subcategory to 15 percent VOM by weight and the "non-aerosol" subcategory to six percent VOM by weight. *Id*.; *see* 35 Ill. Adm. Code 223.203 (defining "fabric refresher"); *see also* Model Rule at 22 (setting identical limits); ISOR at I-8.

Subsection (a)(29): Footwear or Leather Care Products. The Agency sought to add a subsection (29) establishing VOM content limits for three subcategories of footwear or leather care products. Prop. at 31. Specifically, with an effective date of July 1, 2012, the Agency proposed to limit the "aerosol" subcategory to 75 percent VOM by weight, the "solid" category to 55 percent VOM by weight and the "other forms" subcategory to 15 percent VOM by weight. *Id*.; *see* 35 Ill. Adm. Code 223.203 (defining "footwear or leather care product"); *see also* Model Rule at 22 (setting identical limits); ISOR at I-8.

Subsection (a)(34): Graffiti Remover: The Agency sought to add a subsection (34) establishing VOM content limits for two subcategories of graffiti remover. Prop. at 32. Specifically, with an effective date of July 1, 2012, the Agency proposed to limit the "aerosol"

category to 50 percent VOM by weight and the "non-aerosol" category to 30 percent VOM by weight. *Id*.; *see* 35 Ill. Adm. Code 223.203 (defining "graffiti remover"); *see also* Model Rule at 22 (setting identical limits); ISOR at I-8.

Subsection (a)(39): Hair Styling Products. The Agency sought to add a subsection (39) establishing VOM content limits for two subcategories of hair styling products. Prop. at 32. Specifically, with an effective date of July 1, 2012, the Agency proposed to limit the "aerosol and pump sprays" subcategory to six percent VOM by weight and the "all other forms" subcategory to two percent VOM by weight. *Id*.; *see* 35 Ill. Adm. Code 223.203 (defining "hair styling product" and "pump spray"); *see also* Model Rule at 23 (setting identical limits); ISOR at I-8.

Subsection (a)(54): Shaving Gel. The Agency sought to add a subsection (54) establishing VOM content limits for shaving gel. Prop. at 34. Specifically, with an effective date of July 1, 2012, the Agency proposed to limit shaving gel to 7 percent VOM by weight. *Id*.; *see* 35 Ill. Adm. Code 223.203 (defining "shaving gel"); *see also* Model Rule at 23 (setting identical limit); ISOR at I-8.

Subsection (a)(59): Wood Cleaner. The Agency sought to add a subsection (59) establishing VOM content limits for two subcategories of wood cleaner. Prop. at 34. Specifically, with an effective date of July 1, 2012, the Agency proposed to limit the "aerosol" subcategory to 17 percent VOM by weight and the "non-aerosol" subcategory to four percent VOM by weight. *Id*.; *see* 35 Ill. Adm. Code 223.203 (defining "wood cleaner"); *see also* Model Rule at 23-24 (setting identical limits); ISOR at I-8.

In addition to proposing addition of these eleven new subsections, the Agency has proposed to re-number each of the existing 48 subsections in order to maintain categories in alphabetical order. *See* Prop. at 28-34.

The Board finds that the record supports each of these proposed new definitions is and includes them in its order below. As noted above, the Board has declined to re-designate the existing subsection (a)(1), particularly since the request to do so has been withdrawn.

Section 223.207: Products Registered Under FIFRA

The Agency's original proposal did not seek to amend Section 223.207, which provides in its entirety that, "[f]or those consumer products that are registered under the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA, 7 USC 136 through 136y), incorporated by reference in Section 223.120, the effective date of the VOM standards will be July 1, 2010." 35 Ill. Adm. Code 223.207.

During the second hearing, however, CSPA noted the effective date of July 1, 2010, acknowledging that it is correct for product categories subject to the current rule. Tr.2 at 8. CSPA argued that "FIFRA products are granted a one-year extension in every state that regulates consumer products." *Id*.; *compare* 35 Ill. Adm. Code 223.205(a) *with* 35 Ill. Adm. Code 223.207; *see* Model Rule at 24. CSPA attributed this extension to regulation of these products

both by USEPA and by state agencies such as departments of agriculture. Tr.2 at 8-9. CSPA recommended replacing the date of July 1, 2010, with the following language: "one year after the effective date specified in Section 223.205. . . ." *Id.* at 9. CSPA argued that this proposed revision "addresses the concern about ensuring we have a proper effective date for these newly regulated products." *Id.*

The Board concurs in this amendment to Section 223.207, which is reflected in its order below. Specifically, the Board finds that record includes no facts or arguments opposing the CSPA's proposed revision of language establishing an effective date and that it is consistent with the one-year extension reflected in the current rules. The Board concludes that this revision appropriately clarifies the date on which VOM limits for a limited range of products will take effect.

Section 223.208: Requirements for Aerosol Adhesives

During the second hearing, the Board noted CSPA's position that this section regulating aerosol adhesives makes it unnecessary to regulate them under proposed new Section 223.211. Tr.2 at 19; *see* Yost Test. at 8-9. The Board further noted that, although the proposed new section addresses the issue of impurities, this section does not do so. Tr.2 at 19; *see* 35 Ill. Adm. Code 203.208; Prop. at 35-36. CSPA indicated that Section 223.208 "probably should" address impurities, but it stated that it had sought only to avoid regulating these products in different provisions of Part 223. Tr.2 at 19-20.

In its post-hearing comment, the Agency generally concurred that this section should address impurities and proposed to amend Section 223.208(c) as follows:

> c) Effective July 1, 2009, no person shall sell, supply, offer for sale, or manufacture for use in Illinois any aerosol adhesive that contains any of the following compounds: methylene chloride, perchloroethylene, or trichloroethylene. <u>These requirements do not apply to any Aerosol Adhesive containing methylene chloride, perchloroethylene, or trichloroethylene that is present as an impurity in a combined amount equal to or less than 0.01% by weight.</u> PC 3 at 4.

The Agency argued that this revision "would serve the interests of the Illinois rule by making it more consistent with the California rule." PC 3 at 4. The Agency opined that "[s]uch a change should not be controversial because the language for impurities only allows for a very small quantity of the prohibited materials that may unintentionally be included in the product." *Id.*; *see id*. at 4 (proposing revision). The Agency did not otherwise seek to amend Section 223.208.

The Board finds that this proposed amendment appropriately addresses the questions and comments raised in the course of this proceeding. The Board concludes that this allows only a very limited presence of impurities in aerosol adhesives and will make the provisions of Part 223 more consistent with one another. The Board includes Section 223.208 and this amendment in its order below.

Section 223.211: Requirements for Adhesive Removers, Aerosol Adhesives, Contact Adhesives, Electrical Cleaners, Electronic Cleaners, Footwear or Leather Care Products, General Purpose Degreasers, and Graffiti Removers

In his pre-filed testimony on behalf of CSPA, Mr. Yost notes that the OTC Model Rule includes provisions regulating specified compounds "that may not cause or contribute to ozone formation." Yost Test. at 6 n.11. CSPA states that the Model Rule allows states to determine whether to regulate those compounds. *Id*., citing Model Rule at 1 (noting "hazardous nature" of compounds). CSPA further states that the Agency has proposed such optional language as a new Section 223.211 prohibiting the "the manufacture, sale, supply or offering for sale of specified consumer product categories that contain methylene chloride, perchloroethylene or trichloroethylene." Yost Test. at 6. CSPA recommends three specific revisions, which are summarized below.

Subsection (a). The Agency sought to add a new Section 223.211, subsection (a) of which provides in its entirety that,

> [e]ffective July 1, 2012, no person shall sell, supply, offer for sale, or manufacture for use in Illinois any Adhesive Removers, Aerosol Adhesives, Contact Adhesives, Electrical Cleaners, Electronic Cleaners, Footwear or Leather Care Products, General Purpose Degreasers, and Graffiti Removers that contain any of the following compounds: methylene chloride, perchloroethylene, or trichloroethylene. Prop. at 35; SR at 7-8; *see* Model Rule at 28.

In its pre-filed testimony, CSPA states that this proposed provision "is silent in what, if anything, manufacturers, distributors and retailers must do with existing product stock that was manufactured before the July 1, 2012, effective date of the prohibitions." Yost Test. at 7. CSPA argues that this silence may have unintended environmental consequences by causing the disposal of otherwise usable and saleable products. *Id*. CSPA states that most states imposing similar prohibitions "provide a three-year sell-through period to ensure that product manufacturers, distributors and retailers have an adequate amount of time to ensure that non-compliant products are withdrawn from the shelves." *Id*. CSPA added that other states with similar prohibitions do not include "any sell-through limitation since, as a practical matter, existing stock of these products are generally sold quickly (possibly in less than three years). *Id*. (citations omitted). CSPA recommended that the Board revise the Agency's proposed Section 223.211(a) by clearly providing "that products manufactured before July 1, 2012, may continue to be sold, supplied, or offered for sale in Illinois." *Id*.; *see id*. at 9 (proposing revision).

In response to a Board question during the second hearing, the Agency stated that it concurred with a sell-through period for products manufactured before the effective date of the Agency's proposed limits. Tr.2 at 22. Mr. Davis indicated that adding this language "would be consistent with our previous sell through policy. . . ." Tr.2 at 22.

In its post-hearing comments, the Agency stated that it did not object to language proposed by CSPA to establish an "effective date that preserves the sell through of product

manufactured and date coded before July 1, 2012." PC 3 at 1; *see id*. at 3 (proposing revision); *see also* 35 Ill. Adm. Code 223.250 (Product Dating).

Subsection (b). The Agency also originally proposed a subsection (b) providing in its entirety that

> [t]he requirements of Section 211(a) do not apply to any Adhesive Removers, Aerosol Adhesives, Contact Adhesives, Electrical Cleaners, Electronic Cleaners, Footwear or Leather Care Products, General Purpose Degreasers, and Graffiti Removers containing methylene chloride, perchloroethylene, or trichloroethylene that is present as an impurity in a combined amount equal to or less than 0.01% by weight. Prop. at 35-36; SR at 8; *see* Model Rule at 28-29.

Aerosol Adhesives. CSPA stated that the Agency's proposed Section 223.211 restricts the use of chlorinated compounds in product categories including "aerosol adhesives." Yost Test. at 8; *see* Prop. at 35-36. CSPA noted that existing Section 223.208 has applied to aerosol adhesives since July 1, 2009, and restricts the use of perchloroethylene, methylene chloride, and trichloroethylene. Yost Test. at 8; *see* 35 Ill. Adm. Code 223.208 (Requirements for Aerosol Adhesives). Based on these existing requirements, "CSPA recommends that the Board delete the reference to 'Aerosol Adhesives' in Section 223.211. . . ." Yost Test. at 8; *see id*. at 2.

During the second hearing, the Board noted CSPA's recommendation but observed that proposed Section 223.211 differs from Section 223.208 because the proposed new language accounts for impurities. Tr.2 at 19; *see* 35 Ill. Adm. Code 223.208; Prop. at 35-36. Mr. Yost stated that the existing language "probably should' do so. Tr.2 at 19.

In its post-hearing comments, the Agency followed CSPA's recommendation to remove aerosol adhesives from the proposed Section 223.211. PC 3 at 2. The Agency added that, if the Board concurs, "additional language should be added to account for an 'impurities' allowance in Section 223.208." *Id*.; *see* 35 Ill. Adm. Code 223.208. The Agency argues that these revisions address both CSPA's concern with regulating one set of products in separate provisions and the Board's question concerning consistent treatment of impurities. PC 3 at 2-3.

General Purpose Degreasers. Addressing both proposed subsections, CSPA testified that, although manufacturers seek to eliminate the use of chlorinated compounds in products, "there are limited situations when the use of these chemical compounds is necessary to produce low-flammability general purpose degreaser products that can be used by facilities' maintenance operations in which ignition sources (*e.g.*, metal parts contacting other metal parts) may be present." Yost Test. at 8; *see id*. at 2. CSPA argued that the risk of a fire from such ignition sources raises workplace safety issues. *Id*.; *see* Tr.2 at 12. CSPA added that methylene chloride and perchloroethylene are exempt from the definition of VOM because of their "very low photochemical reactivity." Yost Test. at 8, citing 40 C.F.R. § 51.100(s), 35 Ill. Adm. Code 211.7150(a). CSPA claimed that the Agency's proposal would generate "minimal, if any, reduction of VOM emissions, and thus, is not necessary to achieve attainment of federal ozone standards." Yost Test. at 8; *see id*. at 1-2; Tr.2 at 12. CSPA requested that the Board strike

restrictions on the General Purpose Degreaser category from Section 223.211 in its first-notice proposal. Yost Test. at 8; *see id*. at 9 (proposing revision); Tr.2 at 12-13.

During the second hearing, the Agency asked CSPA whether deleting the restriction on the general purpose degreaser category would make Illinois' rule more or less consistent with the OTC states. Tr.2 at 11-12. Mr. Yost responded that the regulations of ten other states include this restriction, so deleting it "would set a precedent." *Id*. at 12, 13. Suggesting that it may be only a limited precedent, he added that the OTC is expected to approve a revised 2014 model rule that will generate additional state rulemaking activity. *Id*. at 13. He indicated that CSPA would then request that the OTC states consider deleting this restriction. *Id*.

Also during the second hearing, Mr. Yost responded to an Agency question by indicating that general purpose degreasers meeting this proposed restriction are available for sale in these ten other states. Tr.2 at 14. Mr. Yost acknowledged that, if the Board adopted CSPA's recommendation and deleted this restriction, then general purpose degreasers sold in Illinois would differ from those sold in other states. *Id*. He added that products of this kind are sold most often to commercial entities and not more widely through retail outlets. *Id*.

In their post-hearing comments, CSPA, Chicago Aerosol, and Claire all addressed this issue in response to questions raised by the Board during the second hearing. PC 1, PC 2, PC 4; *see* Tr.2 at 15. Each of the three comments noted that the Board had asked whether suppliers formulate low-flammability general purpose degreasers without using chlorinated solvents. PC 1 at 1; PC 2 at 1; PC 4 at 1. Claire responded "yes" (PC 4 at 1), and both CSPA and Chicago Aerosol stated that the answer is a "qualified 'yes'" (PC 1 at 1; PC 2 at 1). Each stated that, based on experience formulating products for sale in California and other jurisdictions, they "have determined that the alternatives to the three specifically identified chlorinated solvents do *not* provide the same protection from flammability." PC 1 at 1; PC 2 at 1; PC 4 at 1 (emphasis in each original). The comments elaborated that the substitute products "typically have flash points in the combustible range." PC 1 at 1; PC 2 at 1; PC 4 at 1. Each also stressed that the substitutes "dry very slowly and do not do not allow for immediate use of the part." PC 1 at 1; PC 2 at 1; PC 4 at 1. All stated that this delay may lead mechanics to use unregulated solvents such as gasoline or paint thinner "to remove or dissolve grease, grime, oil and other oil-based contaminants from metallic parts and surfaces." PC 1 at 1; PC 2 at 2; PC 4 at 1.

Each of the three comments also noted that the Board had asked "whether general purpose degreasers formulated with LVP-VOM solvents are being sold in other states that impose a restriction on the use of the three chlorinated solvents. PC 1 at 2; PC 2 at 1; PC 4 at 1. Both CSPA and Chicago Aerosol indicated that such a restriction has been adopted in the following states: California, Connecticut, Delaware, Indiana, Maine, Maryland, Massachusetts, Michigan, New Jersey, New York, and Rhode Island. PC 1 at 2 n.4; PC 2 at 2 n.4. Each comment responded that, although such products are in fact being sold, "customers generally dislike the reformulated products since the products are deemed to be ineffective in removing grease from mechanical parts and surfaces for the same reasons stated above." PC 1 at 2; PC 2 at 2; PC 4 at 1. Claire added that the reformulated products also "give off obnoxious odors." PC 4 at 1.

On the basis of these arguments, each of the three comments cited workplace safety and projected reductions in VOM emissions to recommend "that the Board *delete* the restrictions for the General Purpose Degreaser product category set forth in the newly-proposed 35 IAC § 223.211." PC 1 at 2; PC 2 at 1; PC 4 at 2 (emphasis in each original).

In its post-hearing comments, the Agency opposed the recommendation to strike this proposed restriction on General Purpose Degreasers. The Agency stated that its proposal intended to make Illinois' rules consistent with those of other states and to prevent those rules from requiring the sale of products that differ from those sold elsewhere. PC 3 at 1. The Agency stressed CSPA's acknowledgment that its proposed revision would be inconsistent with ten other states and that it would set a precedent. *Id*., citing Tr.2 at 12, 13. The Agency also stressed CSPA's acknowledgement that products complying with the proposed restriction are now available and sold in states that have adopted it. PC 3 at 2, citing Tr.2 at 14. The Agency argues that, if the Board accepts the revision offered by CSPA, then Illinois would allow the sale of products that could not be sold in states that had adopted the restriction. PC 3 at 2. Citing consistency, the Agency objects to the recommendation to strike General Purpose Degreasers form the proposed Section 223.211.

Board Discussion. First, the Board finds that the Agency's proposed sell-through deadline addresses the questions and comments raised in the course of this proceeding and clarifies applicability of this language. The Board concurs that it is appropriate to allow regulated products manufactured and date-coded before July 1, 2012, to be sold until their supplies are exhausted and includes this revision in its order below.

Second, the Board also finds that the Agency's proposal to strike aerosol adhesives from this section will clarify regulation of these products by avoiding the risk of inconsistencies between Section 223.208 and 223.211. The Board notes that it has above proposed to amend Section 223.208 to address impurities in a manner consistent with subsection (b).

Finally, after carefully considering the arguments in the record, the Board declines to strike general purpose degreasers from proposed Section 223.211. The Board notes that both the Agency and CSPA have cited the general benefits of consistent regulation of these products, notably the avoidance of conflicting state regulations and the sale of single products in multiple jurisdictions. The record clearly indicates that the revision proposed by CSPA would differ from restrictions adopted in numerous other states and would establish a precedent for regulation of these products. The Board foresees that this precedent could lead to the formulation and marketing of separate products for Illinois and for other states, undermining the clear interest in consistent regulation. Furthermore, the record clearly shows that the market supplies compliant products now sold in other states. The Board has weighed and by no means discounts the comments by CSPA, Chicago Aerosol, and Claire indicating that these compliant products present shortcomings. Similar regulations in numerous other states provide an incentive for continued reformulation of these products. The Board also notes that OTC is expected to issue a revised model rule in 2014, which may conceivably address regulation of these products. Accordingly, the Board finds that it is appropriate to restrict the use of chlorinated compounds in general purpose degreasers and includes that restriction in its order below.

Subpart C: Architectural and Industrial Maintenance Coatings

Existing Section 223.305 addresses the applicability of VOM regulations for architectural coatings under Subpart C. 35 Ill. Adm. Code 223.305. Section 223.305 also provides that Subpart C does not apply to three specific categories of materials. *Id*. (subsections (a), (b), and (c)). Subsection (c) now provides that Subpart C does not apply to "[a]ny architectural coating that is sold in a container with a volume of one liter (1.057 quart) or less." 35 Ill. Adm. Code 223.305(c); *see* 35 Ill. Adm. Code 223.307 (defining "architectural coating" for Subpart C).

The Agency sought to amend this language to clarify compliance. SR at 4. The Agency stated that some vendors of these products "were taking packets of coatings, each of which were individually below the minimum value for compliance, and bundling them together to sell in groups." *Id*. Suggesting that it does not view sale of the bundled packets as sale of a single item, the Agency proposed to "change the rule so that the volume for sale purposes is the entire package, not the individual ones." *Id*. Accordingly, the Agency proposed to add the following sentence to subsection (c): "[f]or the purpose of this subsection the volume of architectural coating in a container shall be considered the total volume of coating that is packaged in a unit of retail sale or for use by the consumer." Prop. at 36; *see* SR at 8.

The Board finds that the record contains no fact or arguments opposing this proposed amendment and that it would clarify applicability of this provision. The Board includes this amendment in its order below.

CONCLUSION

The Board proposes to amend Part 223 of its air pollution regulations. In its order below, the Board directs the Clerk to cause first-notice publication of the Board's proposal in the *Illinois Register*, which commences a 45-day public comment period.

ORDER

The Board directs the Clerk to cause first-notice publication of the following proposed amendments to the Board's air pollution regulations in the *Illinois Register*. Proposed additions are underlined, and proposed deletions appear stricken.

TITLE 35: ENVIRONMENTAL PROTECTION
SUBTITLE B: AIR POLLUTION
CHAPTER I: POLLUTION CONTROL BOARD
SUBCHAPTER c: EMISSION STANDARDS AND LIMITATIONS FOR STATIONARY SOURCES

PART 223
STANDARDS AND LIMITATIONS FOR ORGANIC MATERIAL EMISSIONS FOR AREA SOURCES

SUBPART A: GENERAL PROVISIONS

Section
223.100 Severability
223.105 Abbreviations and Acronyms
223.120 Incorporations by Reference

SUBPART B: CONSUMER AND COMMERCIAL PRODUCTS

Section
223.200 Purpose
223.201 Applicability
223.203 Definitions for Subpart B
223.205 Standards
223.206 Diluted Products
223.207 Products Registered under FIFRA
223.208 Requirements for Aerosol Adhesives
223.209 Requirements for Floor Wax Strippers
223.210 Products Containing Ozone-Depleting Compounds
223.211 Requirements for Adhesive Removers, Aerosol Adhesives, Contact Adhesives, Electrical Cleaners, Electronic Cleaners, Footwear or Leather Care Products, General Purpose Degreasers, and Graffiti Removers
223.220 Requirements for Charcoal Lighter Material
223.230 Exemptions
223.240 Innovative Product Exemption
223.245 Alternative Compliance Plans
223.250 Product Dating
223.255 Additional Product Dating Requirements
223.260 Most Restrictive Limit
223.265 Additional Labeling Requirements for Aerosol Adhesives, Adhesive Removers, Electronic Cleaners, Electrical Cleaners, Energized Electrical Cleaners, and Contact Adhesives
223.270 Reporting Requirements
223.275 Special Recordkeeping Requirements for Consumer Products that Contain Perchloroethylene or Methylene Chloride
223.280 Calculating Illinois Sales
223.285 Test Methods

SUBPART C: ARCHITECTURAL AND INDUSTRIAL MAINTENANCE COATINGS

Section
223.300 Purpose
223.305 Applicability
223.307 Definitions for Subpart C
223.310 Standards
223.320 Container Labeling Requirements

AUTHORITY: Implementing Section 10 and authorized by Sections 27 and 28 of the Environmental Protection Act [415 ILCS 5/10, 27 and 28].

SOURCE: Adopted in R08-17 at 33 Ill. Reg. 25, effective June 8, 2009; amended in R12-8 at 36 Ill Reg. _____, effective _____.

Section 223.201 Applicability

Except as provided in Section 223.230, unless another date is specified, this Subpart shall apply to any person who sells, supplies, offers for sale, or manufactures consumer products on or after July 1, 2009, for use in Illinois.

(Source: Amended at 36 Ill. Reg. _____, effective _____).

Section 223.203 Definitions for Subpart B

The definitions contained in this Section apply only to the provisions of this Subpart. Unless otherwise defined in this Section, the definitions of terms used in this Subpart shall have the meanings specified for those terms in 35 Ill. Adm. Code 211.

"Adhesive" means any product that is used to bond one surface to another by attachment. This does not include products used on humans and animals, adhesive tape, contact paper, wallpaper, shelf liners, or any other product with an adhesive incorporated onto or in an inert substrate. For "Contact Adhesive", adhesive does not include units of product, less packaging, that consist of more than one gallon. For "Construction, Panel, and Floor Covering Adhesive", and "General Purpose Adhesive", "Adhesive" does not include units of product, less packaging, that weigh more than one pound and consist of more than 16 fluid ounces. This limitation does not apply to aerosol adhesives.

"Adhesive Remover" means a product designed to remove adhesive from either a specific substrate or a variety of substrates. "Adhesive Remover" does not include products that remove adhesives intended exclusively for use on humans or animals.

For the purpose of this definition and the "Adhesive Remover" subcategories listed in this definition, the term "Adhesive" shall mean a substance used to bond one or more materials. Adhesive includes, but is not limited to, caulks, sealants, glues, or similar substances used for the purpose of forming a bond.

"Floor and Wall Covering Adhesive Remover" means a product designed or labeled to remove floor or wall coverings and associated adhesive from the underlying substrate.

"Gasket or Thread Locking Adhesive Remover" means a product designed or labeled to remove gaskets or thread locking adhesives. Products labeled for dual use as a paint stripper and gasket remover and/or thread locking adhesive remover are considered "Gasket or Thread Locking Adhesive Remover".

"General Purpose Adhesive Remover" means a product designed or labeled to remove cyanoacrylate adhesives as well as non-reactive adhesives or residue from a variety of substrates. "General Purpose Adhesive Remover" includes, but is not limited to, the following: products that remove thermoplastic adhesives, pressure sensitive adhesives, dextrine or starchbased adhesives, casein glues, rubber or latex-based adhesives, and products that remove stickers, decals, stencils, or similar materials. "General Purpose Adhesive Remover" does not include "Floor or Wall Covering Adhesive Remover".

"Specialty Adhesive Remover" means a product designed to remove reactive adhesives from a variety of substrates. Reactive adhesives include adhesives that require a hardener or catalyst in order for the bond to occur. Examples of reactive adhesives include, but are not limited to epoxies, urethanes, and silicones. "Specialty Adhesive Remover" does not include "Gasket or Thread Locking Adhesive Remover".

"Aerosol Adhesive" means an aerosol product in which the spray mechanism is permanently housed in a nonrefillable can designed for hand-held application without the need for ancillary hoses or spray equipment. This does not include "special purpose spray adhesives", "mist spray adhesives" and "web spray adhesives."

"Aerosol Cooking Spray" means any aerosol product designed either to reduce sticking on cooking and baking surfaces or to be applied on food, or both.

"Aerosol Product" means a pressurized spray system that dispenses product ingredients by means of a propellant contained in a product or a product's container, or by means of a mechanically induced force. "Aerosol Product" does not include "Pump Spray".

"Agricultural Use" means the use of any pesticide or method or device for the control of pests in connection with the commercial production, storage, or processing of any animal or plant crop. This does not include the sale or use of pesticides in properly labeled packages or containers that are intended for home use, use in structural pest control, or industrial or institutional use. For the purposes of this definition only:

"Home Use" means use in a household or its immediate environment;

"Structural Pest Control" means a use requiring a license under the Structural Pest Control Act [225 ILCS 235];

"Industrial Use" means use for or in a manufacturing, mining, or chemical process or use in the operation of factories, processing plants, and similar sites**;** or

"Institutional Use" means use within the lines of, or on property necessary for the operation of, buildings such as hospitals, schools, libraries, auditoriums, and office complexes.

"Air Freshener" means any consumer product including, but not limited to, sprays, wicks, powders, and crystals, designed for the purpose of masking odors, or freshening, cleaning, scenting, or deodorizing the air. "Air Freshener" does not include products that are used on the human body, products that function primarily as cleaning products as indicated on a product label, "Toilet/Urinal Care Products", disinfectant products claiming to deodorize by killing germs on surfaces, or institutional and industrial disinfectants when offered for sale solely through institutional and industrial channels of distribution. "Air Freshener" does include spray disinfectants and other products that are expressly represented for use as air fresheners, except institutional and industrial disinfectants when offered for sale through institutional and industrial channels of distribution. To determine whether a product is an air freshener, all verbal and visual representations regarding product use on the label or packaging and in the product's literature and advertising may be considered. The presence of, and representations about, a product's fragrance and ability to deodorize (resulting from surface application) shall not constitute a claim of air freshening.

"All Other Carbon-containing Compounds" means all other compounds that contain at least one carbon atom and are not listed under Section 223.205(a) or are a "LVP-VOM."

"All Other Forms" means all consumer product forms for that no form-specific VOM standard is specified. Unless specified otherwise by the applicable VOM standard, "All Other Forms" include, but is not limited to, solids, liquids, wicks, powders, crystals, and cloth or paper wipes (towelettes).

"Alternative Control Plan" or "ACP" means any emissions averaging program approved by the Agency pursuant to the provisions of this Subpart.

"Antimicrobial Hand or Body Cleaner or Soap" means a cleaner or soap which is designed to reduce the level of microorganisms on the skin through germicidal activity. This includes, but is not limited to, antimicrobial hand or body washes/cleaners, foodhandler hand washes, healthcare personnel hand washes, pre-operative skin preparations and surgical scrubs. "Antimicrobial Hand or Body Cleaner or Soap" does not include prescription drug products, antiperspirants, "Astringent/Toner", deodorant, "Facial Cleaner or Soap", "General-use Hand or Body Cleaner or Soap", "Hand Dishwashing Detergent" (including antimicrobial), "Heavy-duty Hand Cleaner or Soap", "Medicated Astringent/Medicated Toner", or "Rubbing Alcohol".

"Antiperspirant" means any product, including, but not limited to, aerosols, roll-ons, sticks, pumps, pads, creams, and squeeze-bottles, that is intended by the manufacturer to be used to reduce perspiration in the human axilla by at least 20 percent in at least 50 percent of a target population.

"Anti-Static Product" means a product that is labeled to eliminate, prevent, or inhibit the accumulation of static electricity. "Anti-Static Product" does not include "Electronic Cleaner", "Floor Polish or Wax", "Floor Coating", and products that meet the definition of "Aerosol Coating Product" or "Architectural Coating".

"Appurtenance" means any accessory to a stationary structure coated at the site of installation, whether installed or detached, 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 and fire escapes, and window screens.

"Architectural Coating" means a coating to be applied to stationary structures or the appurtenances at the site of installation, to portable buildings at the site of installation, to pavements, or to curbs. Coatings applied in shop applications or to non-stationary structures such as airplanes, ships, boats, railcars, and automobiles, and adhesives are not considered "Architectural Coatings" for the purposes of this Subpart.

"Astringent/Toner" means any product not regulated as a drug by the United States Food and Drug Administration (FDA) that is applied to the skin for the purpose of cleaning or tightening pores. This category also includes clarifiers and substrate-impregnated products. This category does not include any hand, face, or body cleaner or soap product, "Medicated Astringent/Medicated Toner", cold cream, lotion, or antiperspirant.

"Automotive Brake Cleaner" means a cleaning product designed to remove oil, grease, brake fluid, brake pad material or dirt from motor vehicle brake mechanisms.

"Automotive Hard Paste Wax" means an automotive wax or polish that is designed to protect and improve the appearance of automotive paint surfaces, and is a solid at room temperature, and contains 0% water by formulation.

"Automotive Instant Detailer" means a product designed for use in a pump spray that is applied to the painted surface of automobiles and wiped off prior to the product being allowed to dry.

"Automotive Rubbing or Polishing Compound" means a product designed primarily to remove oxidation, old paint, scratches or swirl marks, and other defects from the painted surfaces of motor vehicles without leaving a protective barrier.

"Automotive Wax, Polish, Sealant, or Glaze" means a product designed to seal out moisture, increase gloss, or otherwise enhance a motor vehicle's painted surfaces. This includes, but is not limited to, products designed for use in autobody repair shops and drive-through car washes, as well as products designed for the general public. The term does not include "Automotive Rubbing or Polishing Compounds", automotive wash and wax products, surfactant-containing car wash products, and products designed for use on unpainted surfaces such as bare metal, chrome, glass, or plastic.

"Automotive Windshield Washer Fluid" means any liquid designed for use in a motor vehicle windshield washer system either as an antifreeze or for the purpose of cleaning, washing, or wetting the windshield. This does not include fluids placed by the manufacturer in a new vehicle.

"Bathroom and Tile Cleaner" means a product designed to clean tile or surfaces in bathrooms. The term does not include products designed primarily to clean toilet bowls, toilet tanks or urinals.

"Bug and Tar Remover" means a product labeled to remove either or both of the following from painted motor vehicle surfaces without causing damage to the finish: biological-type residues such as insect carcasses, tree sap and road grime such as road tar, roadway paint markings, and asphalt.

"Carburetor or Fuel-Injection Air Intake Cleaners" means a product designed to remove fuel deposits, dirt, or other contaminants from a carburetor, choke, throttle body of a fuel-injection system, or associated linkages, excluding products designed exclusively to be introduced directly into the fuel lines or fuel storage tank prior to introduction into the carburetor or fuel injectors.

"Carpet and Upholstery Cleaner" means a cleaning product designed for the purpose of eliminating dirt and stains on rugs, carpeting, and the interior of motor vehicles and/or on household furniture or objects upholstered or covered with fabrics such as wool, cotton, nylon or other synthetic fabrics. This includes, but is not limited to, products that make fabric protectant claims. The term does not include "General Purpose Cleaners", "Spot Removers", vinyl or leather cleaners, dry cleaning fluids, or products designed exclusively for use at industrial facilities engaged in furniture or carpet manufacturing.

"Charcoal Lighter Material" means any combustible material designed to be applied on, incorporated in, added to, or used with charcoal to enhance ignition. The term does not include any of the following: electrical starters and probes, metallic cylinders using paper tinder, natural gas, propane, and fat wood.

"Colorant" means any pigment or coloring material used in a consumer product for an aesthetic effect or to dramatize an ingredient.

"Construction, Panel, and Floor Covering Adhesive" means any one-component adhesive that is designed exclusively for the installation, remodeling, maintenance, or repair of

structural and building components that include, but are not limited to, beams, trusses, studs, paneling (including, but not limited to, drywall or drywall laminates, fiberglass reinforced plastic (FRP), plywood, particle board, insulation board, pre-decorated hardboard or tileboard), ceiling and acoustical tile, molding, fixtures, countertops or countertop laminates, cove or wall bases, flooring or subflooring, or floor or wall coverings (including, but not limited to, wood or simulated wood covering, carpet, carpet pad or cushion, vinyl-backed carpet, flexible flooring material, nonresilient flooring material, mirror tiles and other types of tiles, and artificial grass). The term does not include “Floor Seam Sealer”.

“Consumer” means any person who purchases or acquires any consumer product for personal, family, household, or institutional use. Persons acquiring a consumer product for resale are not “consumers” for that product.

“Consumer Product” means a chemically formulated product used by household and institutional consumers including, but not limited to, detergents, cleaning compounds, polishes, floor finishes, cosmetics, personal care products, home lawn and garden products, disinfectants, sanitizers, aerosol paints, and automotive specialty products. “Consumer Product” does not include other paint products, furniture coatings, or architectural coatings. As used in this Subpart, “Consumer Product” shall also refer to “Aerosol Adhesive”, including “Aerosol Adhesive” used for consumer, industrial or commercial uses.

“Contact Adhesive” means an adhesive that is designed for application to both surfaces to be bonded together, and is allowed to dry before the two surfaces are placed in contact with each other, and forms an immediate bond that is impossible, or difficult, to reposition after both adhesive-coated surfaces are placed in contact with each other, and does not need sustained pressure or clamping of surfaces after the adhesive-coated surfaces have been brought together using sufficient momentary pressure to establish full contact between both surfaces. The term does not include rubber cements that are primarily intended for use on paper substrates. “Contact Adhesive” also does not include vulcanizing fluids that are designed and labeled for tire repair only.

“Contact Adhesive - General Purpose” means any contact adhesive that is not a “Contact Adhesive - Special Purpose".

“Contact Adhesive - Special Purpose” means a contact adhesive that is used to bond melamine-covered board, unprimed metal, unsupported vinyl, Teflon, ultra-high molecular weight polyethylene, rubber, or high pressure laminate or wood veneer 1/16 inch or less in thickness to any porous or nonporous surface, and is sold in units of product, less packaging, that contain more than eight fluid ounces, or is used in automotive applications that are either automotive under the hood applications requiring heat, oil or gasoline resistance or body-side molding, automotive weatherstrip or decorative trim.

"Container/Packaging" means the part or parts of the consumer or institutional product that ~~s~~erve only to contain, enclose, incorporate, deliver, dispense, wrap or store the chemically formulated substance or mixture of substances that is solely responsible for accomplishing the purposes for which the product was designed or intended. This includes any article onto or into which the principal display panel and other accompanying literature or graphics are incorporated, etched, printed or attached.

"Crawling Bug Insecticide" means any insecticide product that is designed for use against ants, cockroaches, or other household crawling arthropods, including, but not limited to, mites, silverfish or spiders, excluding products designed to be used exclusively on humans or animals, or any house dust mite product. For the purposes of this definition only:

> "House dust mite product" means a product whose label, packaging, or accompanying literature states that the product is suitable for use against house dust mites, but does not indicate that the product is suitable for use against ants, cockroaches, or other household crawling arthropods.
>
> "House dust mite" means mites that feed primarily on skin cells shed in the home by humans and pets and which belong to the phylum Arthropoda, the subphylum Chelicerata, the class Arachnida, the subclass Acari, the order Astigmata, and the family Pyroglyphidae.

"Date-Code" means the day, month and year on which the consumer product was manufactured, filled, or packaged, or a code indicating that date.

"Deodorant" means:

> For products manufactured before July 1, 2009: any product including, but not limited to, aerosols, roll-ons, sticks, pumps, pads, creams, and squeeze-bottles that is intended by the manufacturer to be used to minimize odor in the human axilla by retarding the growth of bacteria that cause the decomposition of perspiration.
>
> For products manufactured on or after July 1, 2009: any product including, but not limited to, aerosols, roll-ons, sticks, pumps, pads, creams, and squeeze-bottles~~,~~ that indicates or depicts on the container or packaging, or on any sticker or label affixed to the container or packaging, that the product can be used on or applied to the human axilla to provide a scent and/or minimize odor. A "Deodorant Body Spray" product that indicates or depicts on the container or packaging, or on any sticker or label affixed to the container or packaging to the container or packaging that it can be used on or applied to the human axilla~~,~~ is a "Deodorant".

"Deodorant Body Spray" means:

> For products manufactured before July 1, 2009: a "Personal Fragrance Product" with 20 percent or less fragrance.

For products manufactured on or after July 1, 2009: a "Personal Fragrance Product" with 20 percent or less fragrance that is designed for application all over the human body to provide a scent. A "Deodorant Body Spray" product that indicates or depicts on the container or packaging, or on any sticker or label affixed to the container or packaging, that it can be used on or applied to the human axilla, is a "Deodorant"

"Device" means any instrument or contrivance (other than a firearm) designed for trapping, destroying, repelling, or mitigating any pest or any other form of plant or animal life (other than man and other than bacterium, virus, or another microorganism on or in living man or other living animals), but not including equipment used for the application of pesticides when sold separately from the device.

"Disinfectant" means any product intended to destroy or irreversibly inactivate infectious or other undesirable bacteria, pathogenic fungi, or viruses on surfaces or inanimate objects and whose label is registered under the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA, 7 USC 136 et seq.). "Disinfectant" does not include any of the following products designed solely for use on humans or animals, products designed for agricultural use, products designed solely for use in swimming pools, therapeutic tubs, or hot tubs, products that, as indicated on the principal display panel or label, are designed primarily for use as bathroom and tile cleaners, glass cleaners, general purpose cleaners, toilet bowl cleaners, or metal polishes.

"Double Phase Aerosol Air Freshener" means an aerosol air freshener with the liquid contents in two or more distinct phases that require the product container to be shaken before use to mix the phases, producing an emulsion.

"Dry Cleaning Fluid" means any non-aqueous liquid product designed and labeled exclusively for use on fabrics that are labeled "dry clean only", such as clothing or drapery or "S-coded" fabrics. This includes, but is not limited to, those products used by commercial dry cleaners and commercial businesses that clean fabrics such as draperies at the customer's residence or work place. The term does not include "Spot Remover" or "Carpet and Upholstery Cleaner". For the purposes of this definition, "S-coded fabric" means an upholstery fabric designed to be cleaned only with water-free spot cleaning products as specified by the Joint Industry Fabric Standards Committee.

"Dusting Aid" means a product designed to assist in removing dust and other soils from floors and other surfaces without leaving a wax or silicone based coating. The term does not include "Pressurized Gas Duster".

"Electrical Cleaner" means a product labeled to remove heavy soils such as grease, grime, or oil from electrical equipment, including, but not limited to, electric motors, armatures, relays, electric panels, or generators. The term does not include "General Purpose Cleaner", "General Purpose Degreaser", "Dusting Aid", "Electronic Cleaner", "Energized Electrical Cleaner", "Pressurized Gas Duster", "Engine Degreaser", "Anti-

Static Product", or products designed to clean the casings or housings of electrical equipment.

"Electronic Cleaner" means a product labeled for the removal of dirt, moisture, dust, flux or oxides from the internal components of electronic or precision equipment such as circuit boards, and the internal components of electronic devices, including, but not limited to, radios, compact disc (CD) players, digital video disc (DVD) players, and computers. "Electronic Cleaner" does not include "General Purpose Cleaner", "General Purpose Degreaser", "Dusting Aid", "Pressurized Gas Duster", "Engine Degreaser", "Electrical Cleaner", "Energized Electrical Cleaner", "Anti-Static Product", or products designed to clean the casings or housings of electronic equipment.

"Energized Electrical Cleaner" means a product that meets both of the following criteria:

The product is labeled to clean and/or degrease electrical equipment, where cleaning and/or degreasing is accomplished when electrical current exists, or when there is a residual electrical potential from a component, such as a capacitor.

The product label clearly displays the statements: "Energized equipment use only. Not to be used for motorized vehicle maintenance, or their parts."

This does not include "Electronic Cleaner".

"Engine Degreaser" means a cleaning product designed to remove grease, grime, oil and other contaminants from the external surfaces of engines and other mechanical parts.

"Existing Product" means any formulation of the same product category and form sold, supplied, manufactured, or offered for sale in Illinois prior to the effective date in Section 223.205~~July 1, 2009~~, or any subsequently introduced identical formulation.

"Fabric Protectant" means a product designed to be applied to fabric substrates to protect the surface from soiling from dirt and other impurities or to reduce absorption of liquid into the fabric's fibers. The term does not include waterproofers, products designed for use solely on leather, or products designed for use solely on fabrics labeled "dry clean only" and sold in containers of 10 fluid ounces or less.

"Fabric Refresher" means a product labeled to neutralize or eliminate odors on non-laundered fabric including, but not limited to, soft household surfaces, rugs, carpeting, draperies, bedding, automotive interiors, footwear, athletic equipment, or clothing or on household furniture or objects upholstered or covered with fabrics such as, but not limited to, wool, cotton, or nylon. "Fabric Refresher" does not include "Anti-static Product", "Carpet and Upholstery Cleaner", "Soft Household Surface Sanitizers", "Footwear or Leather Care Product", "Spot Remover", or "Disinfectant", or products labeled for application to both fabric and human skin.

For the purposes of this definition only, "Soft Household Surface Sanitizer" means a product labeled to neutralize or eliminate odors on the listed surfaces above whose label is registered as a sanitizer under the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA, 7 USC 136 et seq.).

"Facial Cleaner or Soap" means a cleaner or soap designed primarily to clean the face including, but not limited to, facial cleansing creams, semisolids, liquids, lotions, and substrate-impregnated forms. The term does not include prescription drug products, "Antimicrobial Hand or Body Cleaner or Soap", "Astringent/Toner", "General-use Hand or Body Cleaner or Soap", "Medicated Astringent/Medicated Toner", or "Rubbing Alcohol."

"Fat Wood" means pieces of wood kindling with high naturally-occurring levels of sap or resin that enhance ignition of the kindling, excluding any kindling with substances added to enhance flammability, such as wax-covered or wax-impregnated wood-based products.

"Faux Finishing Coating" means a coating labeled and formulated as a stain or a glaze to create artistic effects including, but not limited to, dirt, old age, smoke damage, and simulated marble and wood grain.

"Flea and Tick Insecticide" means any insecticide product that is designed for use against fleas, ticks, their larvae, or their eggs. The term does not include products that are designed to be used exclusively on humans or animals and their bedding.

"Flexible Flooring Material" means asphalt, cork, linoleum, no-wax, rubber, seamless vinyl and vinyl composite flooring.

"Floor Coating" means an opaque coating that is labeled and formulated for application to flooring, including, but not limited to, decks, porches, steps, and other horizontal surfaces that may be subjected to foot traffic.

"Floor Polish or Wax" means a wax, polish, or any other product designed to polish, protect, or enhance floor surfaces by leaving a protective coating that is designed to be periodically replenished. The term does not include "Spray Buff Products", products designed solely for the purpose of cleaning floors, floor finish strippers, products designed for unfinished wood floors, and coatings subject to architectural coatings regulations.

"Floor Seam Sealer" means any product designed and labeled exclusively for bonding, fusing, or sealing (coating) seams between adjoining rolls of installed flexible sheet flooring.

"Floor Wax Stripper" means a product designed to remove natural or synthetic floor polishes or waxes through breakdown of the polish or wax polymers, or by dissolving or emulsifying the polish or wax. This does not include aerosol floor wax strippers or products designed to remove floor wax solely through abrasion.

"Flying Bug Insecticide" means any insecticide product that is designed for use against flying insects or other flying arthropods, including but not limited to flies, mosquitoes, moths, or gnats. The term does not include "Wasp and Hornet Insecticide", products that are designed to be used exclusively on humans or animals, or any moth-proofing product.

> For purposes of this definition only, "Moth-Proofing Product" means a product whose label, packaging, or accompanying literature indicates that the product is designed to protect fabrics from damage by moths, but does not indicate that the product is suitable for use against flying insects or other flying arthropods.

"Footwear or Leather Care Product" means any product designed or labeled to be applied to footwear or to other leather articles/components to maintain, enhance, clean, protect, or modify the appearance, durability, fit, or flexibility of the footwear or leather article/component. Footwear includes both leather and non-leather foot apparel. "Footwear or Leather Care Product" does not include "Fabric Protectant", "General Purpose Adhesive", "Contact Adhesive", "Vinyl/Fabric/Leather/Polycarbonate Coating", "Rubber and Vinyl Protectant", "Fabric Refresher", products solely for deodorizing, or sealant products with adhesive properties used to create external protective layers greater than two millimeters thick.

"Fragrance" means a substance or complex mixture of aroma chemicals, natural essential oils, and other functional components with a combined vapor pressure not in excess of two mm of Hg at 20^{o}C, the sole purpose of which is to impart an odor or scent, or to counteract a malodor.

"Furniture Maintenance Product" means a wax, polish, conditioner, or any other product designed for the purpose of polishing, protecting or enhancing finished wood surfaces other than floors. The term does not include "Dusting Aids", "Wood Cleaners", products designed solely for the purpose of cleaning, and products designed to leave a permanent finish such as stains, sanding sealers and lacquers.

"Furniture Coating" means any paint designed for application to room furnishings including, but not limited to, cabinets (kitchen, bath and vanity), tables, chairs, beds, and sofas.

"Gel" means a colloid in which the disperse phase has combined with the continuous phase to produce a semisolid material, such as jelly.

"General Purpose Adhesive" means any non-aerosol adhesive designed for use on a variety of substrates. The term does not include contact adhesives, construction, panel, and floor covering adhesives, adhesives designed exclusively for application on one specific category of substrates (i.e., substrates that are composed of similar materials, such as different types of metals, paper products, ceramics, plastics, rubbers, or vinyls), or adhesives designed exclusively for use on one specific category of articles (i.e., articles

that may be composed of different materials but perform a specific function, such as gaskets, automotive trim, weather-stripping, or carpets).

"General Purpose Cleaner" means a product designed for general all-purpose cleaning, in contrast to cleaning products designed to clean specific substrates in certain situations. This includes products designed for general floor cleaning, kitchen or countertop cleaning, and cleaners designed to be used on a variety of hard surfaces, and do not include "General Purpose Degreasers" and "Electronic Cleaners".

"General Purpose Degreaser" means any product labeled to remove or dissolve grease, grime, oil and other oil-based contaminants from a variety of substrates, including automotive or miscellaneous metallic parts. This does not include "Engine Degreaser", "General Purpose Cleaner", "Adhesive Remover", "Electronic Cleaner", "Electrical Cleaner", "Energized Electrical Cleaner", "Metal Polish/Cleanser", products used exclusively in "Solvent Cleaning Tanks or Related Equipment", or products that are sold exclusively to establishments that manufacture or construct goods or commodities, and labeled "not for retail sale".

> "Solvent Cleaning Tanks or Related Equipment" includes, but is not limited to, cold cleaners, vapor degreasers, conveyorized degreasers, film cleaning machines, or products designed to clean miscellaneous metallic parts by immersion in a container.

"General-Use Hand or Body Cleaner or Soap" means a cleaner or soap designed to be used routinely on the skin to clean or remove typical or common dirt and soils, including, but not limited to, hand or body washes, dual-purpose shampoo-body cleaners, shower or bath gels, and moisturizing cleaners or soaps. The term does not include prescription drug products, "Antimicrobial Hand or Body Cleaner or Soap", "Astringent/Toner", "Facial Cleaner or Soap", "Hand Dishwashing Detergent" (including antimicrobial), "Heavy-duty Hand Cleaner or Soap", "Medicated Astringent/Medicated Toner", or "Rubbing Alcohol."

"Glass Cleaner" means a cleaning product designed primarily for cleaning surfaces made of glass. The term does not include products designed solely for the purpose of cleaning optical materials used in eyeglasses, photographic equipment, scientific equipment and photocopying machines.

"Graffiti Remover" means a product labeled to remove spray paint, ink, marker, crayon, lipstick, nail polish, or shoe polish from a variety of non-cloth or nonfabric substrates. The term does not include "Paint Remover or Stripper", "Nail Polish Remover", or "Spot Remover". Products labeled for dual use as both a paint stripper and graffiti remover are considered "Graffiti Removers."

"Hair Mousse" means a hairstyling foam designed to facilitate styling of a coiffure and provide limited holding power.

“Hair Shine” means any product designed for the primary purpose of creating a shine when applied to the hair. This includes, but is not limited to, dual-use products designed primarily to impart a sheen to the hair. The term does not include “Hair Spray”, “Hair Mousse”, “Hair Styling Product”, "Hair Styling Gel”, or products whose primary purpose is to condition or hold the hair.

“Hair Spray” means:

> For products manufactured before July 1, 2009: a consumer product designed primarily for the purpose of dispensing droplets of a resin on and into a hair coiffure that will impart sufficient rigidity to the coiffure to establish or retain the style for a period of time.
>
> For products manufactured on or after July 1, 2009: a consumer product that is applied to styled hair and is designed or labeled to provide sufficient rigidity to hold, retain and/or finish the style of the hair for a period of time. This includes aerosol hair sprays, pump hair sprays, spray waxes; color, glitter, or sparkle hairsprays that make finishing claims; and products that are both a styling and finishing product. This does not include spray products that are intended to aid in styling but do not provide finishing of a hairstyle. For the purposes of this Subpart, “finish” or “finishing” means the maintaining and/or holding of previously styled hair for a period of time. For the purposes of this Subpart, “styling” means forming, sculpting, or manipulating the hair to temporarily alter the hair's shape.

“Hair Styling Gel” means a consumer product manufactured before July 1, 2009 that is a high viscosity, often gelatinous, product that contains a resin and is designed for application to hair to aid in styling and sculpting of the hair coiffure.

“Hair Styling Product” means a consumer product manufactured on or after July 1, 2009 that is designed or labeled for application to wet, damp or dry hair to aid in defining, shaping, lifting, styling and/or sculpting of the hair. This includes, but is not limited to, hair balm, clay, cream, creme, curl straightener, gel, liquid, lotion, paste, pomade, putty, root lifter, serum, spray gel, stick, temporary hair straightener, wax, spray products that aid in styling but do not provide finishing of a hairstyle, and leave-in volumizers, detanglers and/or conditioners that make styling claims. This does not include “Hair Mousse”, “Hair Shine”, “Hair Spray”, or shampoos and/or conditioners that are rinsed from the hair prior to styling. For the purposes of this Subpart, “finish” or “finishing” means the maintaining and/or holding of previously styled hair for a period of time. For the purposes of this Subpart, “styling” means forming, sculpting, or manipulating the hair to temporarily alter the hair's shape.

“Heavy-Duty Hand Cleaner or Soap” means a product designed to clean or remove difficult dirt and soils such as oil, grease, grime, tar, shellac, putty, printer’s ink, paint, graphite, cement, carbon, asphalt, or adhesives from the hand with or without the use of water. The term does not include prescription drug products, “Antimicrobial Hand or

Body Cleaner or Soap", "Astringent/Toner", "Facial Cleaner or Soap", "General-use Hand or Body Cleaner or Soap", "Medicated Astringent/Medicated Toner" or "Rubbing Alcohol."

"Herbicide" means a pesticide product designed to kill or retard a plant's growth, but excludes products that are for agricultural use, or restricted materials that require a permit for use and possession.

"High Volatility Organic Material" or "HVOM" or "High Volatility Organic Compound" means any volatile organic material or volatile organic compound that exerts a vapor pressure greater than 80 millimeters of Mercury (mm Hg) when measured at 20^{o}C.

"Household Product" means any consumer product that is primarily designed to be used inside or outside of living quarters or residences that are occupied or intended for occupation by individuals, including the immediate surroundings.

"Illinois Sales" means the sales (net pounds of product, less packaging and container, per year) in Illinois for either the calendar year immediately prior to the year that the registration is due or, if that data is not available, any consecutive 12 month period commencing no earlier than two years prior to the due date of the registration. If direct sales data for Illinois is not available, sales may be estimated by prorating national or regional sales data by population.

"Industrial Use" means use for or in a manufacturing, mining, or chemical process or use in the operation of factories, processing plants, and similar sites.

"Insecticide" means a pesticide product that is designed for use against insects or other arthropods, but excluding products that are for agricultural use or for a use that requires a structural pest control license under the Structural Pest Control Act [225 ILCS 235], or restricted materials that require a permit for use and possession.

"Insecticide Fogger" means any insecticide product designed to release all or most of its content, as a fog or mist, into indoor areas during a single application.

"Institutional Product" or "Industrial and Institutional (I&I) Product" means a consumer product that is designed for use in the maintenance or operation of an establishment that manufactures, transports, or sells goods or commodities, or provides services for profit, or is engaged in the nonprofit promotion of a particular public, educational, or charitable cause. "Establishments" include, but are not limited to, government agencies, factories, schools, hospitals, sanitariums, prisons, restaurants, hotels, stores, automobile service and parts centers, health clubs, theaters, or transportation companies. This does not include household products and products that are incorporated into or used exclusively in the manufacture or construction of the goods or commodities at the site of the establishment.

"Label" means any written, printed, or graphic matter affixed to, applied to, attached to, blown into, formed into, molded into, embossed on, or appearing upon any consumer

product or consumer product package, for purposes of branding, identifying, or giving information with respect to the product or to the contents of the package.

"Lacquer" means a clear or opaque wood coating, including clear lacquer sanding sealers, formulated with cellulosic or synthetic resins to dry by evaporation without chemical reaction and to provide a solid, protective film.

"Laundry Prewash" means a product that is designed for application to a fabric prior to laundering and that supplements and contributes to the effectiveness of laundry detergents and/or provides specialized performance.

"Laundry Starch Product" means a product that is designed for application to a fabric, either during or after laundering, to impart and prolong a crisp, fresh look and may also act to help ease ironing of the fabric. This includes, but is not limited to, fabric finish, sizing, and starch.

"Lawn and Garden Insecticide" means an insecticide product labeled primarily to be used in household lawn and garden areas to protect plants from insects or other arthropods. Notwithstanding the requirements of Section 223.260, aerosol "Lawn and Garden Insecticides" may claim to kill insects or other arthropods.

"Liquid" means a substance or mixture of substances that is capable of a visually detectable flow as determined under ASTM D-4359-90, incorporated by reference in Section 223.120, or an equivalent method approved by the California Air Resources Board. This does not include powders or other materials that are composed entirely of solid particles.

"Lubricant" means a product designed to reduce friction, heat, noise, or wear between moving parts, or to loosen rusted or immovable parts or mechanisms. This does not include automotive power steering fluids; products for use inside power generating motors, engines, and turbines, and their associated power-transfer gearboxes; two cycle oils or other products designed to be added to fuels; products for use on the human body or animals; or products that are sold exclusively to establishments that manufacture or construct goods or commodities, and labeled "not for retail sale."

"LVP Content" means the total weight, in pounds, of LVP compounds in an ACP product multiplied by 100 and divided by the product's total net weight (in pounds, excluding container and packaging), expressed to the nearest 0.1.

"LVP-VOM" or "LVP-VOC" means a chemical material or mixture or compound that contains at least one carbon atom and meets one of the following:

Has a vapor pressure less than 0.1 mm Hg at 20^{o}C, as determined by CARB Method 310, incorporated by reference in Section 223.120; or

Is a chemical material or compound with more than 12 carbon atoms, or a chemical mixture comprised solely of material or a compound with more than 12 carbon atoms as verified by formulation data, and the vapor pressure and boiling point are unknown; or

Is a chemical material or compound with a boiling point greater than 216^{o}C, as determined by CARB Method 310, incorporated by reference in Section 223.120; or

Is the weight percent of a chemical mixture that boils above 216^{o} C, as determined by CARB Method 310, incorporated by reference in Section 223.120.

For the purposes of the definition of LVP-VOM, chemical material or compound means a molecule of definite chemical formula and isomeric structure, and chemical mixture means a substrate comprised of two or more chemical materials or compounds.

"Medicated Astringent /Medicated Toner" means any product regulated as a drug by the FDA that is applied to the skin for the purpose of cleaning or tightening pores. This includes, but is not limited to, clarifiers and substrate-impregnated products. The term does not include hand, face, or body cleaner or soap products, "Astringent/Toner", cold cream, lotion, antiperspirants, or products that must be purchased with a doctor's prescription.

"Medium Volatility Organic Material" or "MVOM" or "Medium Volatility Organic Compound or "MVOC" means any volatile organic material or volatile organic compound that exerts a vapor pressure greater than two mm Hg and less than or equal to 80 mm Hg when measured at 20^{o}C.

"Metal Polish /Cleanser" means any product designed primarily to improve the appearance of finished metal~~,~~ or metallic~~,~~ or metallized surfaces by physical or chemical action. To "improve the appearance" means to remove or reduce stains, impurities, or oxidation from surfaces or to make surfaces smooth and shiny. This includes, but is not limited to, metal polishes used on brass, silver, chrome, copper, stainless steel and other ornamental metals. The term does not include "Automotive Wax, Polish, Sealant or Glaze", wheel cleaner, "Paint Remover or Stripper", products designed and labeled exclusively for automotive and marine detailing, or products designed for use in degreasing tanks.

"Mist Spray Adhesive" means any aerosol which is not a special purpose spray adhesive and that delivers a particle or mist spray, resulting in the formation of fine, discrete particles that yield a generally uniform and smooth application of adhesive to the substrate.

"Multi-Purpose Dry Lubricant" means any lubricant designed and labeled to provide lubricity by depositing a thin film of graphite, molybdenum disulfide (moly), or

polytetrafluoroethylene or closely related fluoropolymer (Teflon) on surfaces, and designed for general purpose lubrication or for use in a wide variety of applications.

“Multi-Purpose Lubricant” means any lubricant designed for general purpose lubrication, or for use in a wide variety of applications. The term does not include “Multi-purpose Dry Lubricants”, “Penetrants”, or “Silicone-based Multi-purpose Lubricants.”

“Multi-Purpose Solvent” means any organic liquid designed to be used for a variety of purposes, including cleaning or degreasing of a variety of substrates, or thinning, dispersing or dissolving other organic materials. This includes solvents used in institutional facilities, except for laboratory reagents used in analytical, educational, research, scientific or other laboratories. This does not include solvents used in cold cleaners, vapor degreasers, conveyorized degreasers or film cleaning machines, or solvents that are incorporated into, or used exclusively in the manufacture or construction of the goods or commodities at the site of the establishment.

“Nail Polish” means any clear or colored coating designed for application to the fingernails or toenails, including but not limited to lacquers, enamels, acrylics, base coats and top coats.

“Nail Polish Remover” means a product designed to remove nail polish and coatings from fingernails or toenails.

“Non-Aerosol Product” means any consumer product that is not dispensed by a pressurized spray system.

“Non-Carbon Containing Compound” means any compound that does not contain any carbon atoms.

“Nonresilient Flooring” means flooring of a mineral content that is not flexible. This includes terrazzo, marble, slate, granite, brick, stone, ceramic tile and concrete.

“Non-Selective Terrestrial Herbicide” means a terrestrial herbicide product that is toxic to plants without regard to species.

“Oven Cleaner” means any cleaning product designed to clean and to remove dried food deposits from oven walls.

“Paint” means any pigmented liquid, or liquefiable or mastic composition designed for application to a substrate in a thin layer that is converted to an opaque solid film after application and is used for protection, decoration or identification, or to serve some functional purpose such as the filling or concealing of surface irregularities or the modification of light and heat radiation characteristics.

“Paint Remover or Stripper” means any product designed to strip or remove paints or other related coatings, by chemical action, from a substrate without markedly affecting

the substrate. This does not include "Multi-purpose Solvents", paintbrush cleaners, products designed and labeled exclusively as "Graffiti Removers", and hand cleaner products that claim to remove paints and other related coatings from skin.

"Penetrant" means a lubricant designed and labeled primarily to loosen metal parts that have bonded together due to rusting, oxidation, or other causes. The term does not include "Multi-purpose Lubricants" that claim to have penetrating qualities, but are not labeled primarily to loosen bonded parts.

"Personal Fragrance Product" means any product that is applied to the human body or clothing for the primary purpose of adding a scent or masking a malodor, including cologne, perfume, aftershave, and toilet water. This does not include "Deodorant"~~,~~; medicated products designed primarily to alleviate fungal or bacterial growth on feet or other areas of the body; mouthwashes and breath fresheners and deodorizers; lotions, moisturizers, powders or other skin care products used primarily to alleviate skin conditions such as dryness and irritations; products designed exclusively for use on human genitalia; soaps, shampoos, and products primarily used to clean the human body; and fragrance products designed to be used exclusively on non-human animals.

"Pesticide" means and includes any substance or mixture of substances labeled, designed, or intended for use in preventing, destroying, repelling or mitigating any pest, or any substance or mixture of substances labeled, designed, or intended for use as a defoliant, desiccant, or plant regulator, provided that the term "Pesticide" will not include any substance, mixture of substances, or device the United States Environmental Protection Agency does not consider to be a pesticide.

"Photograph Coating" means a coating designed and labeled exclusively to be applied to finished photographs to allow corrective retouching, protection of the image or changes in gloss level, or to cover fingerprints.

"Pressurized Gas Duster" means a pressurized product labeled to remove dust from a surface solely by means of mass air or gas flow, including surfaces such as photographs, photographic film negatives, computer keyboards, and other types of surfaces that cannot be cleaned with solvents. This does not include "Dusting Aid".

"Principal Display Panel or Panels" means that part, or those parts, of a label that are so designed as to most likely be displayed, presented, shown or examined under normal and customary conditions of display or purchase. Whenever a principal display panel appears more than once, all requirements pertaining to the "Principal Display Panel" shall pertain to all such "Principal Display Panels."

"Product Brand Name" means the name of the product exactly as it appears on the principal display panel of the product.

"Product Category" means the applicable category, defined in this Section and limited in Section 223.205(a), which best describes the product.

"Product Form" for the purpose of complying with Section 223.270 only, means the applicable form that most accurately describes the product's dispensing form as follows:

A = Aerosol Product
S = Solid
P = Pump Spray
L = Liquid
SS = Semisolid
O = Other

"Product Line" means a group of products of identical form and function belonging to the same product category or categories.

"Pump Spray" means a packaging system in which the product ingredients within the container are not under pressure and in which the product is expelled only while a pumping action is applied to a button, trigger or other actuator.

"Responsible ACP Party" means the company, firm or establishment listed on the ACP product's label. If the label lists two or more companies, firms, or establishments, the "Responsible ACP Party" is the party the ACP product was "manufactured for" or "distributed by", as noted on the label.

"Restricted Materials" means pesticides established as restricted materials under applicable Illinois statutes or regulations.

"Roll-On Product" means any antiperspirant or deodorant that dispenses active ingredients by rolling a wetted ball or wetted cylinder on the affected area.

"Rubber and Vinyl Protectant" means any product designed to protect, preserve or renew vinyl, rubber, and plastic on vehicles, tires, luggage, furniture, and household products such as vinyl covers, clothing, and accessories. This does not include products primarily designed to clean the wheel rim, such as aluminum or magnesium wheel cleaners, and tire cleaners that do not leave an appearance-enhancing or protective substance on the tire.

"Rubbing Alcohol" means any product containing isopropyl alcohol (also called isopropanol) or denatured ethanol and labeled for topical use, usually to decrease germs in minor cuts and scrapes, to relieve minor muscle aches, as a rubefacient, and for massage.

"Rust Preventive Coating" means a coating formulated exclusively for nonindustrial use to prevent the corrosion of metal surfaces and labeled as specified in Section 223.320(f).

"Sanding Sealer" means a clear or semi-transparent wood coating labeled and formulated for application to bare wood to seal the wood and to provide a coat that can be abraded to

create a smooth surface for subsequent applications of coatings. A "Sanding Sealer" that also meets the definition of a "Lacquer" is not included in this category, but it is included in the "Lacquer" category.

"Sealant and Caulking Compound" means any product with adhesive properties that is designed to fill, seal, waterproof, or weatherproof gaps or joints between two surfaces. This does not include roof cements and roof sealants, insulating foams, removable caulking compounds, Clear/paintable/water resistant caulking compounds, floor seam sealers, products designed exclusively for automotive uses, or sealers that are applied as continuous coatings. The term also does not include units of product, less packaging, that weigh more than one pound and consist of more than 16 fluid ounces.

> For the purposes of this definition only, "removable caulking compounds" means a compound that temporarily seals windows or doors for three to six month time intervals. "Clear/paintable/water resistant caulking compound" means a compound that contains no appreciable level of opaque fillers or pigments; transmits most or all visible light through the caulk when cured; is paintable; and is immediately resistant to precipitation upon application.

"Semisolid" means a product that, at room temperature, will not pour, but will spread or deform easily, including but not limited to gels, pastes, and greases.

"Shaving Cream" means an aerosol product that dispenses a foam lather intended to be used with a blade or cartridge razor, or other wet-shaving system, in the removal of facial or other body hair. The term does not include "Shaving Gel".

"Shaving Gel" means an aerosol product which dispenses a post-foaming semisolid designed to be used with a blade, cartridge razor, or other shaving system in the removal of facial or other body hair. This does not include "Shaving Cream".

"Silicone-Based Multi-Purpose Lubricant" means any lubricant designed and labeled to provide lubricity primarily through the use of silicone compounds including, but not limited to, polydimethylsiloxane, and designed and labeled for general purpose lubrication, or for use in a wide variety of applications. The term does not include products designed and labeled exclusively to release manufactured products from molds.

"Single Phase Aerosol Air Freshener" means an aerosol air freshener with the liquid contents in a single homogeneous phase and that does not require that the product container be shaken before use.

"Solid" means a substance or mixture of substances that, either whole or subdivided (such as the particles comprising a powder), is not capable of visually detectable flow as determined under ASTM D4359-90, incorporated by reference in Section 223.120, or an equivalent method approved by the California Air Resources Board.

"Special Purpose Spray Adhesive" means an aerosol adhesive that meets any of the following definitions:

"Mounting Adhesive" means an aerosol adhesive designed to permanently mount photographs, artwork, and any other drawn or printed media to a backing (paper, board, cloth, etc.) without causing discoloration to the artwork.

"Flexible Vinyl Adhesive" means an aerosol adhesive designed to bond flexible vinyl to substrates. Flexible vinyl means a nonrigid polyvinyl chloride plastic with at least five percent, by weight, of plasticizer content. A plasticizer is a material, such as a high boiling point organic solvent, that is incorporated into a plastic to increase its flexibility, workability, or distensibility, and may be determined using ASTM E260-96, incorporated by reference in Section 223.120, or from product formulation data or an equivalent method approved by the CARB.

"Polystyrene Foam Adhesive" means an aerosol adhesive designed to bond polystyrene foam to substrates.

"Automobile Headliner Adhesive" means an aerosol adhesive designed to bond together layers in motor vehicle headliners.

"Polyolefin Adhesive" means an aerosol adhesive designed to bond polyolefins to substrates.

"Laminate Repair/Edgebanding Adhesive" means an aerosol adhesive designed for:

The touch-up or repair of items laminated with high pressure laminates (e.g., lifted edges, delaminates, etc.); or

The touch-up, repair, or attachment of edgebanding materials, including but not limited to other laminates, synthetic marble, veneers, wood molding, and decorative metals.

For the purposes of this definition "high pressure laminate" means sheet materials that consist of paper, fabric, or other core material that have been laminated at temperatures exceeding 265° F, and at pressures between 1,000 and 1,400 psi.

"Automotive Engine Compartment Adhesive" means an aerosol adhesive designed for use in motor vehicle under-the-hood applications which require oil and plasticizer resistance, as well as high shear strength, at temperatures of 200 to 275° F.

"Spot Remover" means any product labeled to clean localized areas, or remove localized

spots or stains on cloth or fabric such as drapes, carpets, upholstery, and clothing, that does not require subsequent laundering to achieve stain removal. This does not include "Dry Cleaning Fluid", "Laundry Prewash", or "Multi-Purpose Solvent."

"Spray Buff Product" means a product designed to restore a worn floor finish in conjunction with a floor buffing machine and special pad.

"Stick Product" means any antiperspirant or deodorant that contains active ingredients in a solid matrix form, and that dispenses the active ingredients by frictional action on the affected area.

"Structural Waterproof Adhesive" means an adhesive whose bond lines are resistant to conditions of continuous immersion in fresh or salt water and that conforms with Federal Specification MMM-A-181D (Type 1, Grade A), incorporated by reference in Section 223.120, and MIL-A-4605 (Type A, Grade A and Grade C), per the Federal Consumer Products Regulation (40 CFR 59, subpart C), incorporated by reference in Section 223.120.

"Terrestrial" means to live on or grow from land.

"Tire Sealant and Inflation" means any pressurized product that is designed to temporarily inflate and seal a leaking tire.

"Toilet/Urinal Care Product" means any product designed or labeled to clean and/or to deodorize toilet bowls, toilet tanks, or urinals. Toilet bowls, toilet tanks, or urinals include, but are not limited to, toilets or urinals connected to permanent plumbing in buildings and other structures, portable toilets or urinals placed at temporary or remote locations, and toilets or urinals in vehicles such as buses, recreational motor homes, boats, ships, and aircraft. This does not include "Bathroom and Tile Cleaner" or "General Purpose Cleaner."

"Type A Propellant" means a compressed gas, such as CO_2, N_2, N_2O, or compressed air that is used as a propellant, and is either incorporated with the product or contained in a separate chamber within the product's packaging.

"Type B Propellant" means any halocarbon that is used as a propellant including chlorofluorocarbons (CFCs), hydrochlorofluorocarbons (HCFCs), and hydrofluorocarbons (HFCs).

"Type C Propellant" means any propellant that is not a Type A or Type B propellant, including propane, isobutane, n-butane, and dimethyl ether (also known as dimethyl oxide).

"Undercoating" means any aerosol product designed to impart a protective, non-paint layer to the undercarriage, trunk interior, and/or firewall of motor vehicles to prevent the

formation of rust or to deaden sound. This includes, but is not limited to, rubberized, mastic, or asphaltic products.

"Usage Directions" means the text or graphics on the product's principal display panel, label, or accompanying literature that describes to the end user how and in what quantity the product is to be used.

"Vinyl/Fabric/Leather/Polycarbonate Coating" means a coating designed and labeled exclusively to coat vinyl, fabric, leather, or polycarbonate substrates.

"VOM Content" means, for purposes of this Subpart, except for charcoal lighter products, the total weight of VOM in a product expressed as a percentage of the product weight (exclusive of the container or packaging), as determined pursuant to Section 223.285(a) and (b).

For charcoal lighter material products only,

$$VOC\ Content = \frac{(Certified\ Emissions\ x\ 100)}{Certified\ Use\ Rate}$$

Certified Emissions = The emissions level for products approved by the Agency under Section 223.220, as determined pursuant to South Coast Air Quality Management District Rule 1174, Ignition Method Compliance Certification Protocol (February 27, 1991), incorporated by reference in Section 223.120, expressed to the nearest 0.001 pound CH_2 per start.

Certified Use Rate = The usage level for products approved by the Agency under Section 223.220, as determined pursuant to South Coast Air Quality Management District Rule 1174, Ignition Method Compliance Certification Protocol (February 27, 1991), incorporated by reference in Section 223.120, expressed to the nearest 0.001 pound certified product used per start.

For purposes of Subpart C of this Part, "VOM Content" means the weight of VOM per volume of coating, calculated according to the procedures specified in Section 223.340(a).

"Wasp and Hornet Insecticide" means any insecticide product that is designed for use against wasps, hornets, yellow jackets or bees by allowing the user to spray from a distance a directed stream or burst at the intended insects, or their hiding place.

"Waterproofer" means a product designed and labeled exclusively to repel water from fabric or leather substrates, excluding "Fabric Protectants".

"Wax" means a material or synthetic thermoplastic substance generally of high molecular weight hydrocarbons or high molecular weight esters of fatty acids or alcohols, except glycerol and high polymers (plastics). This includes, but is not limited to, substances derived from the secretions of plants and animals such as carnuba wax and beeswax, substances of a mineral origin such as ozocerite and paraffin, and synthetic polymers such as polyethylene.

"Web Spray Adhesive" means any aerosol adhesive that is not a mist spray or special purpose spray adhesive.

"Wood Cleaner" means a product labeled to clean wooden materials, including but not limited to decking, fences, flooring, logs, cabinetry, and furniture. The term does not include "Dusting Aid", "General Purpose Cleaner", "Furniture Maintenance Product", "Floor Wax Stripper", "Floor Polish or Wax", or products designed and labeled exclusively to preserve or color wood.

"Wood Floor Wax" means wax-based products for use solely on wood floors.

(Source: Amended at 36 Ill. Reg. _____, effective _____).

Section 223.205 Standards

a) Except as provided in Section 223.207, 223.230, 223.240, or 223.245, no person shall sell, supply, offer for sale, or manufacture for sale in Illinois any consumer product manufactured on or after the date specified below~~July 1, 2009~~ that contains VOMs in excess of the limits specified in this subsection:

Affected Product			**~~% VOM~~ July 1, 2009 % VOM by Weight**	**July 1, 2012 % VOM by Weight**
1)	Adhesive Removers			
	A)	Floor or Wall Covering		5
	B)	Gasket or Thread Locking		50
	C)	General Purpose		20
	D)	Specialty		70
2~~1~~)	Adhesives – Spray			

A)	Mist Spray	65	
B)	Web Spray	55	
C)	Special Purpose Spray Adhesives		
i)	Mounting, Automotive Engine Compartment, and Flexible Vinyl	70	
ii)	Polystyrene Foam and Automotive Headliner	65	
iii)	Polyolefin and Laminate Repair/Edgebanding	60	
3~~2~~)	Adhesives – Construction, Panel and Floor Contact	15	
4)	Adhesives – Contact		
A)	General Purpose		55
B)	Special Purpose		80
5~~3~~)	Adhesives – General Purpose	10	
6~~4~~)	Adhesives – Structural Waterproof	15	
7~~5~~)	Air Fresheners		
A)	Single-Phase Aerosol	30	
B)	Double Phase Aerosol	25	
C)	Liquids / Pump Sprays	18	
D)	Solids / Gel	3	
8~~6~~)	Antiperspirants		
A)	Aerosol	40 HVOM 10 MVOM~~HVOM~~	
B)	Non-Aerosol	0 HVOM~~MVOM~~ 0 MVOM	

9)	Anti-static Product, Non-Aerosol		11
107)	Automotive Brake Cleaners	45	
118)	Automotive Rubbing or Polishing Compound	17	
129)	Automotive Wax, Polish, Sealant, or Glaze		
	A) Hard Paste Waxes	45	
	B) Instant Detailers	3	
	C) All Other Forms	15	
1310)	Automotive Windshield Washer Fluids	35	
1411)	Bathroom and Tile Cleaners		
	A) Aerosol	7	
	B) All Other Forms	5	
1512)	Bug and Tar Remover	40	
1613)	Carburetor or Fuel-Injection Air Intake Cleaners	45	
1714)	Carpet and Upholstery Cleaners		
	A) Aerosol	7	
	B) Non-Aerosol (Dilutables)	0.1	
	C) Non-Aerosol (Ready-to-Use)	3.0	
1815)	Charcoal Lighter Material	see Section 223.220	
1916)	Cooking Spray – Aerosol	18	
2017)	Deodorants		
	A) Aerosol	0 HVOM 10 MVOM~~HVOM~~	
	B) Non-Aerosol	0 HVOM~~MVOM~~ 0 MVOM	

21~~18~~)	Dusting Aids			
	A)	Aerosol	25	
	B)	All Other Forms	7	
22)	Electrical Cleaner			~~4~~5
23)	Electronic Cleaner			75
24~~19~~)	Engine Degreasers			
	A)	Aerosol	35	
	B)	Non-Aerosol	5	
25~~20~~)	Fabric Protectants		60	
26)	Fabric Refresher			
	A)	Aerosol		15
	B)	Non-Aerosol		6
27~~21~~)	Floor Polishes / Waxes			
	A)	Products for Flexible Flooring Materials	7	
	B)	Products for Nonresilient Flooring	10	
	C)	Wood Floor Wax	90	
28~~22~~)	Floor Wax Strippers		see Section 223.209	
29)	Footwear or Leather Care Products			
	A)	Aerosol		75
	B)	Solid		55
	C)	Other Forms		15
30~~23~~)	Furniture Maintenance Products			
	A)	Aerosol	17	

	B)	All Other Forms Except Solid or Paste	7
31~~24~~)	General Purpose Cleaners		
	A)	Aerosol	10
	B)	Non-Aerosol	4
32~~25~~)	General Purpose Degreasers		
	A)	Aerosol	50
	B)	Non-Aerosol	4
33~~26~~)	Glass Cleaners		
	A)	Aerosol	12
	B)	Non-Aerosol	4
34)	Graffiti Remover		
	A)	Aerosol	50
	B)	Non-Aerosol	30
35~~27~~)	Hair Mousses		6
36~~28~~)	Hairshines		55
37~~29~~)	Hairsprays		55
38~~30~~)	Hair Styling Gels		6
39)	Hair Styling Products		
	A)	Aerosol and Pump Sprays	6
	B)	All Other Forms	2
40~~31~~)	Heavy Duty Hand Cleaner or Soap		8
41~~32~~)	Insecticides		
	A)	Crawling Bug (Aerosol)	15

	B)	Crawling Bug (All Other Forms)	20
	C)	Flea and Tick	25
	D)	Flying Bug (Aerosol)	25
	E)	Flying Bug (All Other Forms)	35
	F)	Foggers	45
	G)	Lawn and Garden (Aerosol)	20
	H)	Lawn and Garden (All Other Forms)	3
	I)	Wasp and Hornet	40
42~~33~~)	Laundry Prewash		
	A)	Aerosols / Solids	22
	B)	All Other Forms	5
43~~34~~)	Laundry Starch Products		5
44~~35~~)	Metal Polishes / Cleansers		30
45~~36~~)	Multi-Purpose Lubricant (Excluding Solid or Semi-Solid Products)		50
46~~37~~)	Nail Polish Removers		75
47~~38~~)	Non-Selective Terrestrial Herbicide - Non-Aerosol		3
48~~39~~)	Oven Cleaners		
	A)	Aerosols / Pump Sprays	8
	B)	Liquids	5
49~~40~~)	Paint Removers or Strippers		50
50~~41~~)	Penetrants		50
51~~42~~)	Rubber and Vinyl Protectants		
	A)	Aerosol	10

B)	Non-Aerosol	3	
52~~43~~)	Sealants and Caulking Compounds	4	
53~~44~~)	Shaving Creams	5	
54)	Shaving Gel		7
55~~45~~)	Silicone-Based Multi-Purpose Lubricants (Excluding Solid or Semi-Solid Products)	60	
56~~46~~)	Spot Removers		
A)	Aerosol	25	
B)	Non-Aerosol	8	
57~~47~~)	Tire Sealants and Inflators	20	
58~~48~~)	Undercoatings – Aerosols	40	
59)	Wood Cleaner		
A)	Aerosol		17
B)	Non-Aerosol		4

b) No person shall sell, supply, offer for sale, or manufacture for sale in Illinois, on or after July 1, 2009, any antiperspirant or deodorant that contains any compound listed below:

Benzene

Ethylene Dibromide

Ethylene Dichloride

Hexavalent Chromium

Asbestos

Cadmium (metallic cadmium and cadmium compounds)

Carbon Tetrachloride

Trichloroethylene

Chloroform

Vinyl Chloride

Inorganic Arsenic

Nickel (metallic nickel and inorganic nickel compounds)

Perchloroethylene

Formaldehyde

1,3-Butadiene

Inorganic Lead

Dibenzo-p-dioxins and dibenzofurans chlorinated in the 2,3,7 and 8 positions and containing 4,5,6 or 7 chlorine atoms

(Source: Amended at 36 Ill. Reg. _____, effective _____).

Section 223.207 Products Registered under FIFRA

For those consumer products that are registered under the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA, 7 USC 136 through 136y), incorporated by reference in Section 223.120, the effective date of the VOM standards will be one year after the effective date specified in Section 223.205~~July 1, 2010~~.

(Source: Amended at 36 Ill. Reg. _____, effective _____)

Section 223.208 Requirements for Aerosol Adhesives

a) As specified in California Code § 41712(h)(2), incorporated by reference in Section 223.120, the standards for aerosol adhesives apply to all uses of aerosol adhesives, including consumer, industrial, and commercial uses. Except as otherwise provided in Sections 223.207, 223.230, 223.240, and 223.245, no person shall sell, supply, offer for sale, use or manufacture for sale in Illinois any aerosol adhesive that, at the time of sale, use, or manufacture, contains VOMs in excess of the specified standard.

b) Special Purpose Spray Adhesive.

1) In order to qualify as a Special Purpose Spray Adhesive the product must meet one or more of the definitions for Special Purpose Spray Adhesive specified in Section 223.203, but if the product label indicates that the product is suitable for use on any substrate or application not listed in one of the definitions for Special Purpose Spray Adhesive, then the product shall be classified as either a Web Spray Adhesive or a Mist Spray Adhesive.

2) If a product meets more than one of the definitions specified in Section 223.203 for Special Purpose Spray Adhesive and is not classified as a Web Spray Adhesive or Mist Spray Adhesive under Section 223.203, then the VOC limit for the product shall be the lowest applicable VOM limit specified in Section 223.205(a).

c) Effective July 1, 2009, no person shall sell, supply, offer for sale, or manufacture for use in Illinois any aerosol adhesive that contains any of the following compounds: methylene chloride, perchloroethylene, or trichloroethylene. These requirements do not apply to any Aerosol Adhesive containing methylene chloride, perchloroethylene, or trichloroethylene that is present as an impurity in a combined amount equal to or less than 0.01% by weight.

d) All aerosol adhesives must comply with the labeling requirements specified in Section 223.265.

(Source: Amended at 36 Ill. Reg. _____, effective _____)

Section 223.211 Requirements for Adhesive Removers, Aerosol Adhesives, Contact Adhesives, Electrical Cleaners, Electronic Cleaners, Footwear or Leather Care Products, General Purpose Degreasers, and Graffiti Removers

a) No person shall sell, supply, offer for sale, or manufacture for use in Illinois any Adhesive Removers, Contact Adhesives, Electrical Cleaners, Electronic Cleaners, Footwear or Leather Care Products, General Purpose Degreasers, and Graffiti Removers manufactured on or after July 1, 2012, that contain any of the following compounds: methylene chloride, perchloroethylene, or trichloroethylene

b) Impurities

The requirements of Section 211(a) do not apply to any Adhesive Removers, Contact Adhesives, Electrical Cleaners, Electronic Cleaners, Footwear or Leather Care Products, General Purpose Degreasers, and Graffiti Removers containing methylene chloride, perchloroethylene, or trichloroethylene that is present as an impurity in a combined amount equal to or less than 0.01% by weight.

(Source: Added at 36 Ill. Reg. _____, effective _____).

SUBPART C: ARCHITECTURAL AND INDUSTRIAL MAINTENANCE COATINGS

Section 223.305 Applicability

This Subpart is applicable to any person who supplies, sells, offers for sale, or manufactures any architectural coating for use within the State of Illinois, as well as any person who applies or solicits the application of any architectural coating within Illinois. This Subpart does not apply to:

a) Any architectural coating that is sold or manufactured for use outside of the State of Illinois or for shipment to other manufacturers for reformulation or repackaging.

b) Any aerosol coating product.

c) Any architectural coating that is sold in a container with a volume of one liter (1.057 quart) or less. <u>For the purposes of this subsection the volume of architectural coating in a container shall be considered the total volume of coating that is packaged as unit of retail sale or for use by the consumer.</u>

(Source: Amended at 36 Ill. Reg. _____, effective _____).

IT IS SO ORDERED.

I, John T. Therriault, Assistant Clerk of the Illinois Pollution Control Board, certify that the Board adopted the above order on January 5, 2012, by a vote of 5-0.

John T. Therriault, Assistant Clerk
Illinois Pollution Control Board