**ENVIRONMENTAL PROTECTION**

**OFFICE OF AIR QUALITY MANAGEMENT**

**AIR QUALITY REGULATION PROGRAM**

**Air Pollution Control**

Prevention of Air Pollution from Architectural Coatings and Consumer Products

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|---|---|
| Proposed Amendments: | N.J.A.C. 7:27-23.1, 23.2, 23.3 and 23.5; and 7:27A-3.10 |
| Proposed New Rules: | N.J.A.C. 7:27-23.4 and 23.8 |
| Authorized By: | Bradley M. Campbell, Commissioner, Department of Environmental Protection. |
| Authority: | N.J.S.A. 13:1B-3(e), 13:1D-9 and 26:2C-1 et seq., in particular 26:2C-8 |
| Calender Reference: | See summary below for explanation of exception to calender requirement. |
| DEP Docket Number: | 13-03-06/248 |
| Proposal Number: | PRN 2003-282 |

A **public hearing** concerning this proposal will be held on September 9, 2003, at 10:00 a.m. at:

The War Memorial Building

West Lafayette Street (Corner of W. Lafayette and Barracks Streets)

Turning Point Conference Room

Trenton, New Jersey

Submit written comments, identified by the NJDEP docket number given above, by close of business on September 19, 2003 to:

Alice Previte, Esq.

Attn: DEP Docket No. 13-03-03/248

Office of Legal Affairs

New Jersey Department of Environmental Protection

PO Box 402

Trenton, N.J. 08625-0402

Written comments may also be submitted at the public hearing. It is requested (but not required) that anyone submitting written comments also include a diskette containing an electronic version, preferably in Microsoft Word or Corel WordPerfect format, of the written comments with the submission. Also, it is requested (but not required) that anyone submitting oral testimony at the public hearing provide a copy of any prepared text to the stenographer at the hearing.

Interested persons may obtain a copy of the proposed amendments through the following methods:

1. The proposed amendments may be downloaded electronically from the Department's Air Quality Regulations web site. They may be accessed at http://www.state.nj.us/dep/aqm/.

2. The proposed amendments may be requested from the Department by e-mailing diane.hutchings@dep.state.nj.us, or by telephoning (609) 633-0530.

3. The proposed amendments may be inspected during normal office hours at the Department's Public Information Center at 401 E. State in Trenton, or at one of the Department's Regional Enforcement Offices at the following locations:

Central Regional Office:
Horizon Center
Route 130, Bldg. 300
Robbinsville, NJ 08625-0407

Metropolitan Region:
2 Babcock Place
West Orange, NJ
07052-5504

Northern Region:
1259 Route 46 East, Bldg. 2
Parsippany, NJ 07054-4191

Southern Region:
One Port Center
2 Riverside Drive, Suite 201
Camden, NJ 08103

4. The proposed amendments may be inspected at one of the following public libraries:

Trenton Public Library
120 Academy Street
Trenton, NJ 08608

Atlantic City Public Library
1 North Tennessee Avenue
Atlantic City, NJ 08401

Newark Public Library
5 Washington Street
Newark, NJ 07102-0630

Alexander Library
Rutgers University
169 College Avenue
New Brunswick, NJ 08901

Camden Free Public Library
418 Federal Street
Camden, NJ 08103

New Brunswick Free Public Library
60 Livingston Avenue
New Brunswick, NJ 08901

Joint Free Public Library
Morrison and Morris County
1 Miller Road
Morrison, NJ 07960

Burlington City Library
23 West Union Street
Burlington, NJ 08016

Perth Amboy Public Library
193 Jefferson Street
Perth Amboy, NJ 08861

Freehold Public Library
28 ½ East Main Street
Freehold, NJ 07728

Toms River Public Library
101 Washington Street
Toms River, NJ 08753

Somerville Public Library
35 W. End Avenue
Somerville, NJ 08876

Penns Grove/Carney's Point Public Library Association
222 SouthBroad Street
Penns Grove, NJ 08069

Burlington County Library
Pioneer Blvd. and Woodlane Road
Mt. Holly, NJ 08060

The agency proposal follows:

## Summary

The Department of Environmental Protection (the Department) is proposing new rules and amendments at N.J.A.C. 7:27-23, its rules which establish standards for architectural coatings for manufacturers, suppliers, distributors, retailers and persons who apply architectural coatings. The Department is also proposing related amendments at N.J.A.C. 7:27A-3.10, Air Administrative Procedures and Penalties, Civil Administrative Penalties and Requests for Adjudicatory Hearings.

The intent of this rulemaking is to reduce volatile organic compound (VOC) emissions, which are ozone precursors, to assist in the attainment of the one-hour ozone health standard; to address the VOC emission reduction shortfall identified by the United States Environmental Protection Agency (USEPA); and to implement the Department's State Implementation Plan

(SIP) commitment to the USEPA. The proposed amendments will also help reduce fine particulates and potentially toxics, that are also VOCs or formed from VOCs.

Since the Department has provided a 60 day comment period on this proposal, the proposal is excepted from the rulemaking calender requirements pursuant to N.J.A.C. 1:30-3.3(a)5.

**Background**

Ozone is a highly reactive gas formed in the lower atmosphere or troposphere from the chemical reaction involving oxides of nitrogen, and volatile organic compounds in the presence of sunlight. At elevated levels, it causes a variety of human health effects as well as damage to crops and materials. The ozone National Ambient Air Quality Standard (NAAQS) was established by the USEPA pursuant to the Federal Clean Air Act, 42 U.S.C. § § 7401-7671q, to set health and welfare standards for air pollutants. New Jersey was not in attainment for the ozone NAAQS, based on a March 2, 1995 USEPA memorandum, and submitted an Ozone SIP submittal on December 31, 1996, entitled "Meeting the Requirements of the Alternative Ozone Attainment Demonstration Policy Phase-I Ozone SIP Submittal." Because New Jersey's ozone attainment plan was found inadequate, in a December 29, 1997, USEPA memorandum, the USEPA required New Jersey to prepare and submit, for its approval, an amendment to its Ozone SIP.

On August 31, 1998, New Jersey submitted the requested amendment to its Ozone SIP to the USEPA. This amendment was entitled "Attainment and Maintenance of the Ozone National Ambient Air Quality Standards-Meeting the Requirements of the Alternative Ozone Attainment Demonstration Policy." USEPA examined this revised SIP submittal, especially the

uncertainties in the projections summarized therein, and determined that New Jersey would need to commit to implementing even further emission reductions in order to achieve attainment for ozone. On December 16, 1999, USEPA published a notice in the Federal Register (64 Fed. Reg. 70380) proposing approval of New Jersey's SIP submittal, contingent upon New Jersey's committing to adopt and submit additional measures necessary to secure additional reductions.

The USEPA had found that a number of other states, including Connecticut, Delaware, Maryland, New York and Pennsylvania, had shortfalls in their ozone attainment demonstration. The December 16, 1999 USEPA Federal Register notice indicated that it was appropriate for states in the Ozone Transport Region (OTR) to develop regional strategies to meet the need for additional emission reductions. The Ozone Transport Commission (OTC) was established pursuant to the 1990 amendments to the Federal Clean Air Act (CAA). The OTC is comprised of representatives from the 12 states and Washington D.C. within the OTR. The OTC's mission, in part, is to undertake the development of control measures which can be applied within the region to make progress toward attaining the NAAQS for various air contaminants including ozone. Because six OTC member states had been found by USEPA to have shortfalls in their Ozone SIP attainment deomonstrations, the OTC members agreed to work together to develop a common set of control measures which they could use to obtain additional emission reductions. This agreement was formally set forth in a "Memorandum of Understanding Among the States of the Ozone Transport Commission Regarding the Development of Specific Control Measures to Support Attainment and Maintenance of the Ozone National Ambient Air Quality Standards (MOU)," which was approved by the OTC on June 1, 2000. Subsequently the OTC developed model rules for six control measures. These model rules may be found on the Ozone Transport Commission's website at: http://www.sso.org/otc/Publications/pub2.htm.

In order to address the VOC emission shortfalls in its attainment demonstration, the Department, on April 26, 2000, submitted another ozone SIP revision to USEPA in which it committed to proposing new rules and/or amendments to address the emission reduction shortfall. In addition, New Jersey committed to revise its attainment demonstration SIP by October 31, 2001 to include measures that would be adopted. On October 8, 2001 New Jersey submitted a SIP revision to the USEPA, which included the six measures that would be adopted. The new rules and amendments proposed herein encompass one of the six OTC model rules. The Department has adopted two of these rules, concerning solvent cleaning operations and mobile equipment repair and refinishing operations and intends to address the two remaining measures in a separate rulemaking.

The Department's existing and proposed rules for architectural coatings, as well as the Federal rule for architectural coatings (40 CFR § § 59.401 to 59.413), regulate coatings which include, but are not limited to, paints, varnishes, stains, industrial maintenance coatings, and traffic coatings. An architectural coating is applied at the site of installation to stationary structures, rather than in a shop or factory where pollution control equipment may be installed. Architectural coatings contain solvents, some of which evaporate when they are applied. Some of the solvents used in architectural coatings are VOCs that are precursors to ozone formation. The coating rules control emissions by establishing limits on the VOC content of the coatings. The proposed amendments contain more stringent VOC content limits than New Jersey's existing rule and the Federal rule.

The proposed amendments for architectural coatings would primarily impact manufacturers of architectural coatings (including any person who hires another person to

manufacture a coating for them for compensation). In order to comply with the rule, manufacturers may have to reformulate some of their products in order to meet the new rule requirements or refrain from selling them in New Jersey for use in New Jersey. Distributors and suppliers will need to ensure proper distribution of products to the appropriate states. Persons who apply coatings for compensation must not purchase coatings from another state which has VOC content limits that exceed the proposed New Jersey VOC limits, and then apply them in New Jersey. In addition, they must follow the thinning instructions on the label, so as not to exceed the proposed VOC limits, and must keep containers closed when not in use.

As discussed above, these proposed amendments are based on the OTC model rule for architectural coatings. The OTC model rule is based on the State and Territorial Air Pollution Program Administrators and Association of Local Air Pollution Control Officials (STAPPA/ ALAPCO) model rule for paint, which in turn is based on the California Air Resources Board (CARB) Suggested Control Measure (SCM) for Architectural Coatings, adopted June 22, 2000. The OTC jurisdictions relied on the experience, research and technical expertise of the California Air Resources Board (CARB) in drafting the OTC model rule. The CARB SCM was developed as a model rule for the air quality management districts in California. To date, 18 of the air quality management districts in California have adopted the CARB SCM, which including the South Coast Air Quality Management District which has adopted a rule more stringent than the CARB SCM, comprises 95 percent of California's population. Delaware was the first state in the OTC to propose a new architectural coating rule, based on the OTC model rule. The Delaware rule was adopted on February 8, 2002. Pennsylvania proposed the rule on December 15, 2001. New York proposed the rule on March 9, 2003.

The OTC model rule differs from the CARB SCM in some ways. The operative date for compliance of the proposed VOC limits in the OTC model rule is January 1, 2005. This date is two years after the operative date for the VOC limits in the CARB SCM, of January 1, 2003. Six additional categories that are in the Federal rule, but are not in the CARB SCM, were added to the OTC model rule. These additional categories are: calcimine recoaters, concrete surface retarders, conversion varnishes, impacted immersion coatings, nuclear coatings and thermoplastic rubber coatings and mastics. The sell through provision in the CARB SCM was modified so that any coating manufactured before the operative date of the proposed limits can be sold, with no deadline for sell through. In the CARB SCM, the industrial maintenance coating limit of 340 grams per liter is offered as a variance option to the 250 grams per liter limit based on temperature conditions. In the OTC model rule, the limit of 340 grams per liter was used as the only limit, based on temperature conditions in the northeast.

A more detailed summary of the proposed amendments follows.

The Department is proposing to change the heading of Subchapter 23 from "Prevention of Air Pollution from Architectural Coatings and Consumer Products" to "Prevention of Air Pollution from Architectural Coatings." Consumer products, other than architectural coatings, are regulated in N.J.A.C. 7:27-24. The Department also will be proposing amendments to Subchapter 24 in a separate rulemaking.

**N.J.A.C. 7:27-23.1 Applicability**

The Department is proposing an amendment to existing subsection (a) to reflect that the Department is currently regulating the use of architectural coatings, as well as the manufacture.

The Department is proposing an amendment to existing subsection (b) to clarify that TXS means toxic substances.

A new subsection (c) will be added. This subsection will identify those individuals who are subject to the provisions of this subchapter. The proposed rule differs from the existing rule regarding the application of coatings. The existing rule regulates the application of coatings by any person. The proposed amendments regulate persons who apply coatings for compensation instead of all persons who apply such coatings. The Department believes it is not necessary to regulate all persons who apply coatings because it is the intent of the Department to regulate contractors who might knowingly purchase non-compliant coatings, not the average homeowner.

A new subsection (d) will be added. This section will contain exceptions to the applicability of this subchapter. Existing subsection N.J.A.C. 7:27-23.3(d) which also contains exceptions to the applicability of this subchapter will be relocated to the new N.J.A.C. 7:27-23.1(d) with amendments. This proposal would add an exception at N.J.A.C. 7:27-23.1(d)2 for aerosol coatings, which are not being regulated by this rule. In addition, the existing exception for containers with a capacity of less than one quart is proposed to be amended to apply to containers with a volume of one liter (or 1.057 quarts) or less to be consistent with the OTC model rule.

A new subsection (e) will be added. This subsection excludes those persons who apply coatings for compensation from the rule provision that prohibits the application of non-compliant coatings, as long as the coating is purchased within or delivered to the State of New Jersey or within a state that has identical or more stringent VOC content limits, as identified in

proposed subsection (f). The intent of this provision is that, although persons should not knowingly go to another state to purchase non-compliant paints, they should not be the responsible party if a non-compliant paint was purchased within a complying state. Persons may still purchase coatings from states other than those listed in the rule. However, if they choose to do so, they then take on the responsibility of making sure it is a compliant coating.

A new subsection (f) will be added. This subsection lists the only state listed in the proposed rule as having VOC limits identical or more stringent than New Jersey, which is Delaware. If any other states adopt a rule that meets this criterion before the Department adopts this proposed rule, those states will be listed in this provision on adoption. In addition, after adoption, the Department will publish in the New Jersey Register a notice of administrative change revising the list of states below when any state promulgates maximum allowable VOC content limits for architectural coatings that are identical with or more stringent than the VOC content limits set forth in this subchapter.

**N.J.A.C. 7:27-23.2 Definitions**

The Department is proposing to delete definitions that are no longer applicable to this subchapter. The definitions that are being deleted were intended for the regulation of consumer products. Although the regulatory provisions were removed from Subchapter 23 in a previous rulemaking, the definitions were mistakenly not deleted at that time. These definitions are: "air freshener," "consumer insecticide," "consumer product," "defoliant," "desiccant," "direct consumer," "indirect consumer," "insect," "insecticide," "pest," "pesticide," "plant regulator," and "room fogger."

The Department is proposing to delete some existing definitions which are being replaced with new definitions, based on the OTC model rule. The definitions for "opaque stain" and "semitransparent stain" are being deleted and a definition for "stain" is being added, because the categories for stains are being consolidated into one category. The definitions for "industrial maintenance topcoat" and "industrial maintenance primer" are being deleted and a definition for "industrial maintenance coating" is being added, because the categories for industrial maintenance are being consolidated into one category. The definition for "primer, sealer, undercoater" is being deleted and replaced with separate definitions for "primer," "sealer" and undercoater."

The Department is proposing to amend the following existing definitions based on the OTC model rule: "architectural coating," "bond breaker," "concrete curing compound," "dry fog coating," "fire retardant coating," "flat architectural coating," "high heat resistant coating," "label," "lacquer," "mastic texture coating," "metallic pigmented coating," "non-flat architectural coating," "quick-dry primer, sealer, and undercoater," "roof coating," "sign paint," "swimming pool coating," "traffic coating," "varnish," "waterproofing sealer" and "wood preservative coating."

The Department is proposing to amend the definition of "toxic substance" by deleting the list of toxic substances. The Department believes that the reference to the list in Table 1 of N.J.A.C. 7:27-17 is sufficient.

The Department is proposing to amend the following definitions with minor grammatical changes for consistency with other definitions: "multicolored coating," "shellac" and "waterproof mastic coating."

The Department is proposing to add new definitions, based on the OTC model rule. These definitions correspond with new coating categories, references to California agencies, and other terms used in the regulation of architectural coatings. These definitions are: "adhesive," "aerosol coating product," "antenna coating," "antifouling coating," "appurtenance," "BAAQMD," "bitumens," "bituminous roof coating," "bituminous roof primer," "coating," "colorant," "exempt compound," "faux finishing coating," "fire-resistive coating," "floor coating," "flow coating," "form-release compound," "lacquer, clear brushing," "low solids coating," "magnesite cement coating," "manufacturer's maximum recommendation," "non-flat high gloss coating," "non-industrial use," "post-consumer coating," "pre-treatment wash primer," "quick-dry enamel," "recycled coating," "residence," "rust preventive coating," "sanding sealer," "SCAQMD," "sealer," "secondary coating (rework)," "shop application," "specialty primer, sealer and undercoater," "swimming pool repair and maintenance coating," "temperature-indicator safety coating," "tint base," "VOC content" and "waterproofing concrete/masonry sealer."

The Department is proposing to add six definitions to the rule, which are based on the Federal rule, for the six categories that the OTC added to the CARB SCM. The new definitions are: "calcimine recoater," "concrete surface retarder," "conversion varnish," "impacted immersion coating," "nuclear coating," and "thermoplastic rubber coating and mastic."

The Department is proposing to add a definition for "formulation data" to the rule, which is based on the South Coast Air Quality Management District architectural coating rule. Based on recent comments from the USEPA, South Coast has added this definition to their rule.

In addition, the Department is proposing to add a few more definitions for clarification. The Department is proposing to add a definition for "CARB survey" which is referenced in the reporting requirements. The Department is proposing to add definitions for: "distributor," "manufacturer," "retailer" and "retail outlet," which are terms used in the proposed amendments. Although these terms can be found in a dictionary, but the Department has added them to the proposal for clarification purposes.

The Department is also proposing to add a definition of the term "recommended." Some definitions for coating categories in the OTC model rule require the coating to be "labeled and formulated" for a particular use in order for the coating to be classified as that particular type of coating. This language is not used in the existing rule definitions. The Federal rule uses "formulated and recommended" for essentially the same purpose. The Department will be consistent with the Federal rule terminology. However, the Department defines "recommended" as, for coatings manufactured before January 1, 2005, recommended by the manufacturer either on the container label, in literature describing the coating or on the manufacturer's website, and for coatings manufactured on or after January 1, 2005, recommended by the manufacturer on the coating container's label only.

**N.J.A.C. 7:27-23.3 Standards**

The Department is proposing amendments including new subsections for N.J.A.C.7:27-23.3 based on the OTC model rule. The Department is proposing to change the section heading from "Architectural coatings" to "Standards," which is more reflective of the section content. Existing subsections (a) and (b) contain the provisions that prohibit the sale of non-complying coatings in New Jersey. These subsections are proposed to be consolidated with amendments into a new subsection (a) which also contains the provisions that prohibit the sale of non-complying coatings in New Jersey. The operative date of the new proposed VOC content limits is January 1, 2005. The proposed provision differs from the existing rule regarding the application of coatings. The existing rule regulates the application of coatings by any person. The proposed amendments regulate persons who apply coatings for compensation instead of all persons who apply such coatings. The Department believes it is not necessary to regulate all persons who apply coatings. The statement that the VOC content excludes water and colorant added to tint bases has been relocated to section 23.4(a).

Existing subsection (c) requires that if a coating can be classified under more than one category, then the most stringent limit applies. This subsection is proposed to be relocated with amendments to new subsection (b). The new subsection has added a list of coating categories which are excluded from the provision.

The Department will also relocate existing subsection (d), which contains applicability exceptions and documentation requirements. The applicability portion of the provision is being relocated to subsection (c) of N.J.A.C. 7:27-23.1 and the documentation portion of the provision is being relocated to subsection (b) of N.J.A.C. 7:27- 23.6, Administrative and reporting requirements. Existing subsection (e), which contains test methods, is proposed to be deleted.

New provisions addressing test methods will be added at N.J.A.C. 7:27-23.4, based on the OTC model rule.

The Department will also relocate existing subsection (f) as new subsection (i) with amendments. This subsection contains Table 1, the VOC content limits for architectural coatings. The amendments to the Table will replace existing VOC content limits with more stringent limits and will add new categories of coatings based on the OTC model rule. The existing VOC content limits became operative February 28, 1990. The existing rule contains 30 coating categories. The VOC content limits in the USEPA Federal rule for architectural coatings became operative on September 13, 1999. The Federal rule contains 61 coating categories. The proposed rule contains 55 coating categories. The future operative date of the proposed VOC limits is January 1, 2005.

More specifically, the Department is proposing to replace some existing categories with new categories, operative January 1, 2005, based on the OTC model rule. The fire retardant "all others" category shall be replaced with the "clear" category. The "semi-transparent" and "opaque" stain categories shall be replaced with one category "stains." The "waterproof mastic coating" category shall be replaced with the "mastic texture coating" category. The "all other architectural coating" category shall be "not applicable" and is being replaced with N.J.A.C. 7:27- 23.3(g).

In addition, the Department is proposing seventeen VOC content limits, operative January 1, 2005, based on the OTC model rule, which are more stringent than the existing rule and the Federal rule for the following existing categories: "bond breaker," "fire retardant

coatings, opaque," "fire retardant coatings, all others (or clear)," "flat architectural coating," "high heat resistant (or temperature) coating," "industrial maintenance coatings," "lacquer," "multi-colored coating," "non-flat architectural coating," "primer, sealer, undercoater," "quick-dry primer, sealer, undercoater," "stain, semi-transparent," "stain, opaque," "swimming pool coating," "varnish," "waterproofing sealer," and "wood preservative coating."

The Department is proposing two VOC content limits, operative January 1, 2005, based on the OTC model rule, which are more stringent than the existing rule, but equivalent to the Federal rule for the following existing categories: "roof coating" and "traffic marking coating."

The Department is proposing two VOC content limits, operative January 1, 2005, based on the OTC model rule, which are less stringent than the existing rule and equivalent to the Federal rule for the following existing categories: "mastic texture coatings" and "sign paint (graphic art coatings)." The Department is proposing limits which are less stringent to be consistent with the OTC model rule and the CARB SCM.

Two categories in the existing rule, which are not in the OTC model rule, will remain in the rule and will maintain the same VOC content limit as the existing rule. These categories are: "bituminous pavement sealer" and "tile like glaze coating."

Five categories in the existing rule, which are also in the OTC model rule, will remain in the rule and will maintain the same VOC content limit as the existing rule. These categories are: "concrete curing compound," "dry fog coating," "metallic pigmented coatings," "shellacs, clear" and "shellacs, pigmented (or opaque)."

The Department is proposing to add 22 new categories and VOC content limits, operative January 1, 2005, based on the OTC model rule. These categories are: "antenna coating," "antifouling coating," "bituminous roof coating," "bituminous roof primer," "faux finishing coating," "fire-resistive coating," "floor coating," "flow coating," "form-release compound," "lacquer, clear brushing," "low solids coating," "magnesite cement coating," "non-flat high gloss coating," "pre-treatment wash primer," "quick-dry enamel," "recycled coating," "rust preventive coating," "sanding sealer," "specialty primer, sealer and undercoater," "swimming pool repair and maintenance coating," "temperature-indicator safety coating" and "waterproofing concrete/masonry sealer."

The Department is proposing to add six new categories and VOC content limits to the rule, operative January 1, 2005, based on the OTC model rule, which are based on the Federal rule not the CARB SCM. These categories are: "calcimine recoater," "concrete surface retarder," "conversion varnish," "impacted immersion coating," "nuclear coating" and "thermoplastic rubber coating and mastic."

The Department is also adding the following new provisions. New subsection (c) will clarify that coatings manufactured prior to the operative date of the proposed VOC limits may still be sold after the operative date of the proposed VOC limits. New subsection (d) will contain a requirement that containers used in painting applications be closed when not in use. New subsection (e) will prohibit the application of an architectural coating, for compensation, that is thinned to exceed the applicable VOC limit. New subsection (f) will prohibit the use of rust preventative coatings for industrial use, unless the rust preventative coating complies with the industrial maintenance coating VOC limit, regardless of the date of manufacture of the

coating. This provision regulates a person who applies an architectural coating for compensation. A rust preventative coating may be "compliant" for use as a "rust preventative coating," but not for industrial use as an "industrial maintenance coating." As noted in the definition of rust preventative coating, a rust preventative coating is not intended for industrial use, unless it meets the VOC limit for an "industrial maintenance coating." New subsection (g) will require that any coating that cannot be classified under any of the other categories in N.J.A.C. 7:27-23.3(i) Table 1, shall be considered either a flat or non-flat coating based on its gloss. Finally, new subsection (h) will provide an exception for the application of lacquers.

**N.J.A.C. 7:27-23.4 Compliance provisions and test methods**

Existing N.J.A.C. 7:27-23.4, which is currently reserved, is proposed to be changed to "Compliance Provisions and Test Methods." Seven new subsections are proposed to be added to this section. Subsections (a) through (d) are based on the OTC model rule. New subsection (a) will contain the equations required to calculate the VOC content of a coating.

New subsection (b) will contain the methods required to perform the calculations in subsection (a). There are six test methods incorporated by reference, including subsequent revisions, in subsection (b) which are used to determine the physical properties of a coating in order to perform the calculations in (a). Two test methods, EPA Method 24, "Determination of Volatile Matter Content, Water Content, Density, Volume Solids, and Weight Solids of Surface Coatings" and SCAQMD Method 304-91, "Determination of Volatile Organic Compounds (VOC) in Various Materials," are methods used to determine parameters such as water content, density, volume solids, weight solids. Three test methods, SCAQMD Method 303-91, "Determination of Exempt Compounds," BAAQMD Method 43, "Determination of Volatile

Methylsiloxanes in Solvent-Based Coatings, Inks, and Related Materials," and BAAQMD Method 41, "Determination of Volatile Organic Compounds in Solvent-Based Coatings and Related Materials Containing Parachlorobenzotrifluoride," are used to determine the content of exempt compounds. Analysis of methacrylate multi-component coatings used as traffic marking coatings shall be conducted according to a modification of EPA Method 24, 40 CFR 59, subpart D, Appendix A "Determination of Volatile Matter Content of Methacrylate Multi component Coatings Used as Traffic Marking Coatings," (September 11, 1998). New subsection (h) will contain information on where to obtain the test methods referenced in this subchapter. One additional provision is included in subsection (b). With the exception of subsection (d) described below, in addition to or instead of any of the test methods described above, formulation data or any other reasonable means for predicting that the coating has been formulated as intended (e.g. quality assurance checks, recordkeeping) may be used to determine VOC content.

New subsection (c) will contain an option for an alternative test method to calculate the VOC content of a coating if approved by the Department and the USEPA. New subsection (d) will state that if there are any inconsistencies between USEPA Method 24 and any other methods for determining VOC content, than the USEPA Method 24 results will govern.

New subsection (e) will contain a list of test methods, incorporated into the subchapter by reference, which will help define the category in which a coating belongs, for certain coating categories. There are nine test methods incorporated by reference, including subsequent revisions, in subsection (e) which are used to determine the applicable coating category pursuant to the coating definitions. The flame spread index of a fire retardant coating shall be determined

using the ASTM Designation E 84-01, "Standard Test Method for Surface Burning Characteristics of Building Materials." The fire-resistance rating of a fire-resistive coating shall be determined by ASTM designation E 119-00a, "Standard Test Methods for Fire Tests of Building Construction Materials." The gloss of a coating shall be determined using ASTM Designation D 523-89 (1999), "Standard Test Method for Specular Gloss." The metallic content of a coating shall be determined using SCAQMD Method 318-95, "Determination of Weight Percent Elemental Metal in Coatings by X-Ray Diffraction." The acid content of a coating shall be determined using ASTM Designation D 1613-02, "Standard Test Method for Acidity in Volatile Solvents and Chemical Intermediates Used in Paint, Varnish, Lacquer and Related Products." The set-to-touch, dry-hard, dry-to-touch and dry-to-recoat times of a coating shall be determined using ASTM Designation D 1640-95 (1999), "Standard Methods for Drying, Curing, or Film Formation of Organic Coatings at Room Temperature" The tack free time of a quick-dry enamel coating shall be determined using the Mechanical Test Method of ASTM Designation D 1640-95 (1999). The chalkiness of a surface shall be determined using ASTM Designation D 4214-98, "Standard Test Methods for Evaluating the Degree of Chalking of Exterior Paint Films." The resistance to long term cumulative radiation exposure of a coating shall be determined using ASTM Designation D-4082-02, "Standard Test Method for Effects of Gamma Radiation on Coatings for Use in Light-Water Nuclear Power Plants." The resistance to various chemicals to which the coatings are likely to be exposed in nuclear power plants shall be determined using ASTM Method D 95 (2001), "Standard Test Method for Chemical Resistance of Coatings Used in Light-Water Nuclear Power Plants.

New subsection (f) will require a manufacturer to have a coating tested at the request of the Department. New subsection (g) will require a manufacturer to provide the Department with coating sample duplicates at the request of the Department. New paragraph (h) will contain information on where to obtain the test methods referenced in this subchapter.

**N.J.A.C. 7:27-23.5 Labeling requirements**

The Department is proposing amendments and new provisions for N.J.A.C. 7:27- 23.5 based on the OTC model rule. Existing paragraph (a)1 requires the coating label to contain the manufacturer's recommendations for thinning, which do not exceed the applicable VOC content standards. This subsection is proposed to be relocated with minor clarification amendments to new paragraph (b)1. The statement in the existing paragraph that the coating will not exceed its applicable standard after thinning has been relocated to N.J.A.C. 7:27-23.3 (e) in the Standards section. Existing paragraph (a)2 requires that the VOC content be displayed on the coating label. This subsection is proposed to be relocated with amendments to new paragraph (b)2. For coatings manufactured after January 1, 2005, VOC content can no longer be displayed in pounds per gallon, it shall be displayed in grams per liter. In addition, it is no longer required that the VOC content be prominent and in print to be no smaller than 0.08 inches, in order to be consistent with the OTC model rule, however, it is the anticipation of the Department that the VOC content will not be smaller than 0.08 inches. Existing subsection (b) requires the coating label to contain either the date of manufacture or a date code representing the date of manufacture. This subsection is proposed to be relocated with minor amendments to new subsection (a)1. The information will no longer be sent to the Enforcement Element. The requirements for submittal are included in N.J.A.C. 7:27-23.6(c). Existing subsection (c) allows terms other than VOC to be used to describe volatile organic content on the label. This

subsection will be deleted because this is not permitted by the OTC model rule or the existing Federal rule.

New labeling requirements are proposed to be added to subsection (b) based on the OTC model rule. New paragraph (b)3 includes labeling requirements for industrial maintenance coatings, effective with the effective date of the rule, which are consistent with the Federal rule. New paragraphs (b)4 through 8 include new labeling requirements, which are not operative until January 1, 2005, for clear brushing lacquers, rust preventative coatings, specialty primer, sealer and undercoaters, quick dry enamels and high gloss coatings.

New subsection (c) provides that, for coatings manufactured on or after January 1, 2005, the manufacturer of a coating which is "formulated and recommended" for a specific use as specified in its definition, shall display such recommendations on the coating container's label.

Existing subsection (d) contains an exemption for coatings registered under the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA). This subsection is proposed to be amended so that after January 1, 2005 this exemption will no longer be applicable, to be consistent with the OTC model rule.

**N.J.A.C. 7:27-23.6 Administrative and reporting requirements**

The Department is proposing amendments and new subsections for N.J.A.C. 7:27-23.6. The existing section heading is proposed to be changed from "Administrative requirements" to "Administrative and reporting requirements." Existing subsection (a) requires shipping documentation for products sold in New Jersey to contain a statement that such products are in

compliance with this subchapter. This subsection will be amended to require distributors and retailers to maintain the documentation, instead of the person receiving the product in order to clarify that the average consumer is not required to maintain the documentation. Existing subsection (b) contains recordkeeping requirements for chemically formulated consumer products. This subsection will be deleted from this subchapter, as it is no longer applicable to the subchapter. Consumer products are regulated under N.J.A.C. 7:27-24. This subsection will be moved to N.J.A.C. 7:27-24 in a separate rulemaking.

A new subsection (b) will be added. This new subsection will contain a portion of the existing requirement from N.J.A.C. 7:27-23.3(d)1 with amendments. The existing subsection requires documentation to be provided to the Department, upon request, that indicates the final destination of coating shipments for products intended to be sold for use outside of New Jersey. This portion of the existing subsection will be relocated with amendments to new subsection (b). In addition to the existing requirement, the new subsection will require documentation to be maintained for five years.

A new subsection (c) will be added. This new subsection will contain a portion of the existing requirement from N.J.A.C. 7:27-23.5(b) with amendments. The existing provision requires a date code explanation to be sent to the Department's enforcement division. The new provision will require that the date code explanations must be submitted electronically to the Department. The Department will develop guidance on reporting and make it available to interested parties via the world wide web. It is the intention of the Department that this information be submitted either by email or on computer disk or CD rom. It also states that any information submitted under this section will not be considered confidential by the department.

It is the Department's intention that if a manufacturer believes there is something in the date code explanation related to something other than the date of manufacture that the manufacturer believes to be confidential, than the manufacturer should modify the explanation prior to submitting it to the Department so that the date code explanation only includes non-confidential date code information.

New subsection (d) will be added, which contains a list of manufacturer and product information that is required to be submitted to the Department by a manufacturer, upon request, within 90 days of such request. Three of the items that may be requested are: the actual and regulatory VOC content in grams per liter; the actual and regulatory VOC content in grams per liter after recommended thinning; and the percent by volume solids. These items are defined in the CARB Architectural Coatings Survey Results Final Report, September 1999, or subsequent surveys, which is incorporated by reference and which can be found by accessing the CARB website. The CARB survey is a survey of nationwide coating manufacturers which asked the manufacturers to provide information similar to the information in new subsection (d) (product category, VOC content, etc….).

New subsection (e) will be added, which requires manufacturers to keep records of the information requested in subsection (d) for a minimum of five years. New subsection (f) will be added, which requires manufacturers to keep records which demonstrate compliance with the subchapter for a minimum of five years. New subsection (g) will be added, which requires manufacturers to submit to the Department results of laboratory testing, upon request of the Department. New subsection (h) will be added, which requires that a person who sells a product must identify to the Department the distributor or company from whom the product was obtained

upon request of the Department. New section (i) will be added, which references the confidentiality claim requirements located in N.J.A.C. 7:27-1.6.

**N.J.A.C. 7:27-23.7 Inspections**

In existing subsection (c), the term "indirect consumer" is proposed to be replaced with "any person who applies coatings for compensation" to be consistent with the rule language added to other sections in the subchapter.

**N.J.A.C. 7:27-23.8 Penalties for failure to comply**

The Department is proposing to add a new section N.J.A.C. 7:27-23.8 which will set the penalties for non-compliance with any of the provisions of this subchapter. New subsection (a) will reference the applicable penalties at N.J.A.C. 7:27A-3 for failure to comply. New subsection (b) is proposed to be added to indicate how the Department may address when a product fails to comply with the applicable VOC content limit required in the subchapter. New subsection (b) authorizes the Department to issue an order requiring a manufacturer to do any or all of the following: demonstrate that the product does comply; or demonstrate that the test results for that specific unit are not representative of the entire batch, or entire product line of the unit; or recall the product and remove the product from sale in New Jersey. The subsection also authorizes the Department to issue an order requiring the distributor or supplier to assist in a recall or prohibiting the sale of the product in New Jersey until the manufacturer makes a demonstration that the product meets the applicable VOC content requirements.

**N.J.A.C. 7:27A-3.10 Civil administrative penalties for violation of rules adopted pursuant to the Act**

Existing N.J.A.C. 7:27A-3.10(m)23 is proposed to be amended to reflect the proposed amendments to N.J.A.C. 7:27-23. The existing penalties for N.J.A.C. 7:27-23.4(a) are proposed to be deleted from this paragraph. Consumer products are regulated under N.J.A.C. 7:27-24. These penalties, with amendments, will be moved to N.J.A.C. 7:27A-3.10(m)24 in a separate rulemaking with amendments.

New penalties are proposed to be added for proposed N.J.A.C. 7:27-23.3(d), (e) and (f), 23.4(f) and (g), 23.5, 23.6(a), (b), (c), (d), (e), (f) and (g), 23.7; and 23.8(b). The penalties for labeling requirements in N.J.A.C. 7:27-23.5 and shipping documentation requirements in N.J.A.C. 7:27-23.6(a) have been lowered to be consistent with similar penalties in other Department rules.

## Social Impact

The proposed amendments and new rules will have positive social impact on the general public. VOCs present in the atmosphere are a precursor to the formation of troposheric (ground-level) ozone. Adoption of the new control measures contained within this proposal would aid the State in attaining and maintaining the NAAQS for ozone by reducing VOC emissions.

The general public will benefit from the proposed amendments and new rules because ground level ozone is a health concern in New Jersey. Ground level ozone is breathed by people and animals and comes into contact with crops and other vegetation, as well as man-made structures and surfaces. This exposure can cause a variety of adverse effects. Ozone, a known respiratory irritant, has severe and debilitating effects on lung capacity and can have detrimental effects on respiration. Even at low levels, ozone can cause average humans to experience

breathing difficulty, chest pains, coughing and irritation to the nose, throat and eyes. For individuals who already experience respiratory problems or who are predisposed to respiratory ailments, these symptoms can become much more severe, forcing those individuals to alter their lifestyles to avoid unnecessary exposure. In addition, chronic ozone exposure studies performed on laboratory animals indicate that long-term exposure to ozone affects lung physiology and morphology. These studies suggest that humans exposed to ozone for prolonged periods of time can experience chronic respiratory injuries resulting in premature or accelerated aging of human lung tissue.

Breathing elevated levels of ground-level ozone can:

- Decrease lung function, primarily in children active outdoors;
- Increase respiratory symptoms, such as coughing and chest pain upon inhalation, particularly in highly sensitive individuals;
- Increase hospital admissions and emergency room visits for respiratory causes among children and adults with pre-existing respiratory diseases, such as asthma;
- Cause inflammation of the lungs;
- Cause possible long-term damage to the lungs; and
- Promote allergic reactions (62 Fed. Reg. 60317, (November 7, 1997).

In addition to its health effects, ground-level ozone interferes with the ability of various plants to produce and store nutrients (A USEPA Fact Sheet on the New 8-Hour Ozone and Fine (2.5 microns) Particulate Matter Health Standards, July 1997). This causes the plants to become more susceptible to disease, insects, other pollutants and harsh weather. This impacts annual crop production throughout the United States, resulting in significant losses, and injures native

vegetation and ecosystems. Ground-level ozone also damages certain man-made materials, such as textile fibers, dyes, and paints.

In addition, some VOCs are associated with the formation of PM 2.5 (fine particulate matter of 2.5 microns or less equivalent aerodynamic diameter), either through condensation of the VOCs or complex reactions of VOCs with other compounds in the atmosphere. These fine particulates are known as secondary organic aerosols. Initial monitoring data indicates that these organics, which include secondary organic compounds, can be a significant component of total fine particulates, particularly in urban areas (Amar, Praveen, NESCAUM's Progress Report on Determination of Fine Particles Concentrations and Chemical Composition in the Northeastern US, 1995 and NESCAUM, Regional Haze and Visibility in the Northeast and Mis-Atlantic States, draft report, November 30, 2000).

Fine particulates have been associated with a number of adverse health effects including, premature mortality, aggravation of respiratory and cardiovascular disease, changes in lung function and increased respiratory symptoms, changes to lung tissues and structure, and altered respiratory defense mechanisms (USEPA, National Ambient Air Quality Standards for Particulate Matter, proposed rule, 61 Fed. Reg., 65638, December 13, 1996). Therefore, to the extent that VOC emissions are lowered, there can be a beneficial impact in terms of mitigating the adverse health impacts from fine particulates as well.

In addition, lowering the VOC content in architectural coatings is also expected to lead to a reduction of hazardous air pollutants (HAPs) (substances listed in 1990 CAAA Title III, Sec. 112(b)) and toxic substances (substances listed in N.J.A.C. 7:27-17). HAPs are substances that

cause serious health and environmental effects. Health effects include cancer, birth defects, nervous system problems and death due to massive accidental releases (USEPA Plain English Guide to the Clean Air Act, April 1993). Many of the VOCs used in architectural coatings are HAPs also, such as hexane, methyl ethyl ketone, toluene, ethylbenzene, xylenes, ethylene glycol, glycol ethers and benzene. Benzene is also classified as a toxic substance (substances listed in N.J.A.C. 7:27-17) and is a human carcinogen.

It is expected that in order to achieve VOC emission reductions required by this proposal, some manufacturers will have to reformulate their products with a lower VOC content. It is also expected that when these products are reformulated some of their attributes may change. Such products, however, will still need to perform the same function. As discussed in the Economic Impact below, the estimated cost increases per product for the average homeowner are not anticipated to be significant, however, there is a possibility that the manufacturers will pass the increased cost of production onto their consumers.

## Economic Impact

The analysis and discussion herein is based on the economic analyses performed by the California Air Resources Board (CARB) for their proposed architectural coatings suggested control measures (CARB SCM). The CARB economic analysis can be found in the CARB Staff Report for the Proposed Suggested Control Measure for Architectural Coatings, June 6, 2000. The CARB report may be downloaded from CARB's website at http://www.arb.ca.gov/coatings/arch/sreport/sreport.htm. The Department believes that architectural coating sales in California are comparable to those in the northeast, proportioned by population, for the purposes of conducting this economic analysis. In addition, many

manufacturers market coatings nationally, and 10 manufacturers account for approximately 75 to 80 percent of the sales volume nationally. In conducting their architectural coating survey CARB contacted 700 coating manufacturers (this includes manufacturers of coatings other than architectural coatings) nationwide requesting product and sales information. Furthermore, the OTC performed an architectural coating survey which indicated that coatings which are currently sold and are compliant with the proposed VOC limits exist in the northeast comparable to in California. The OTC architectural coatings survey can be found in a report prepared by E.H. Pechan and Associates titled "Control Measure Development Support Analysis of Ozone Transport Commission Model Rules" dated March 31, 2001. This report may be downloaded from the Department's website at www.dep.state.nj/dep/aqm/aqmhome4.htm

Relying on CARB's analyses provides an overall conservative approach because the Department has assumed that manufacturers will incur all the non-recurring costs assumed by CARB for its analyses. This assumption is conservative because in reality for national manufacturers some of the reformulation costs will only be incurred once to implement California's regulation and will not need to be incurred again to comply with New Jersey proposed amendments. In addition, manufacturers will have to reformulate for the other states in the northeast region adopting the OTC model rule.

The economic impact analysis accounts for a difference in the industrial maintenance coating limit between the CARB SCM and the New Jersey proposal. In the CARB SCM, the industrial maintenance coating limit of 340 grams per liter is offered as a variance option to the 250 grams per liter limit based on temperature conditions. In the OTC model rule and in the New Jersey proposal, the limit of 340 grams per liter was used as the only limit, based on

temperature conditions in the northeast. The calculations presented in this analysis have been modified to account for the higher limit. At the request of the OTC workgroup, representatives from CARB re-calculated cost effectiveness and cost per gallon for the OTC model rule, the results of which are discussed below.

**Potential Business Impact**

The amendments for architectural coatings would primarily impact manufacturers of architectural coatings (including any person who hires another person to manufacture a coating for them). In order to comply with the amendments, manufacturers may have to reformulate some of their products to meet the rule requirements or refrain from selling them in New Jersey for use in New Jersey. Distributors and suppliers will need to ensure proper distribution of products to the appropriate states. Also potentially affected are businesses that supply ingredients and equipment to these manufacturers. Also potentially affected are painting contractors.

According to the 1998-1999 Rauch Guide to the US Paint Industry, there are approximately 40 architectural coating manufacturers located in New Jersey and approximately 26 of these manufacturers have 100 or less employees. According to the National Paint and Coatings Association (NPCA) website (http://www.paint.org/index.htm), there are approximately 700 manufacturers, suppliers and distributors in the paint and coatings industry nationwide, with approximately $16.6 billion in annual sales in 1998. Of that total sales, architectural coatings accounted for approximately 38 percent ($6.3 billion) and special purpose coatings accounted for approximately 21 percent ($3.5 billion). The remaining 41 percent is made up of original equipment manufacturer product coatings. According to the 1997 Economic

Census for Paint and Coating Manufacturing, there are approximately 53,091 employees in the paint and coatings industry in the US. Of this total, approximately 2,207 are in New Jersey and approximately 1,193 are production workers.

In conducting their architectural coating survey, CARB contacted 700 coating manufacturers (this includes manufacturers of coatings other than architectural coatings) nationwide requesting product and sales information. CARB received 340 responses with product information, and 25 responses included estimated cost impacts to comply with the CARB SCM. According to CARB, architectural coatings generated about $7 billion in national sales in 1997, of which an estimated $870 million was in California. The bulk of this sales volume was generated by a few companies; 10 manufacturers account for approximately 75 to 80 percent of the volume. Adjusting CARB's estimates for population, architectural coatings are estimated to have generated approximately $219 million in sales in New Jersey in 1997.

CARB estimated that the architectural coatings companies sold an estimated total of about 48.2 million gallons of paint and coatings in California outside the South Coast Air Quality Management District (SCAQMD) in 1996. Adjusting CARB's estimate for population, approximately 29 million gallons of paint were sold in New Jersey in 1996.

The CARB business impacts analysis assumes the scenario in which all costs incurred to meet the proposal are absorbed by the manufacturers. First, total annual costs were calculated. Annual costs include annualized (over a five year project horizon) nonrecurring costs (for example, total research and development, product and consumer testing, equipment purchases/modifications, one-time distributional/marketing changes, etc.) and annual recurring

costs (for example, increases or decreases in raw material costs, labeling, packaging, record keeping & reporting, etc.). The projected annual costs then became the inputs for determining the three main outputs of the economic analysis: the potential business impacts, the potential consumer impacts and the estimated cost-effectiveness.

Then projected annual costs were divided by annual gallons of architectural coatings sold to result in a producer cost per gallon. The results of these calculations are shown in Table 1.

**Table 1: Estimated Producer Cost Per-Gallon for Architectural Coatings Based on Proposed Amendments to NJAC 7:27- 23** [1, 2]

| Coating Category | Estimated Producer Cost Per Gallon [3] (dollars per gallon) |
|---|---|
| Flats | ($0.04) |
| Industrial Maintenance | $4.19 |
| Lacquer | $4.00 |
| Multicolor | $2.74 |
| Non-flat (low & medium-gloss) | $0.93 |
| Primers, Sealers, Undercoaters (PSU) | $4.78 |
| Quick Dry Enamel | $6.02 |
| Quick Dry PSU | ($0.35) |
| Stains | $1.70 |
| Swimming Pool Repair | $2.65 |
| WaterProofing Sealers | ($0.40) |
| **OVERALL RESULTS** | $1.02 [4] |

**Notes:**

1. Table source: CARB Staff Report for the Proposed Suggested Control Measure for Architectural Coatings, June 6, 2000. The table has been modified by CARB for the OTC model rule (and New Jersey rule) to account for a limit of 340 g/l for industrial maintenance.
2. Values in "( )" are negative (indicates potential cost savings).
3. Producer cost per gallon assuming total annual costs were spread out over total annual non-compliant gallons.
4. Overall cost per gallon equals total annual costs divided by total non-SCAQMD, noncompliant gallons.

Then CARB conducted a three year average return on equity (ROE) analysis on three sample businesses of different sizes, small, medium and large. ROE is calculated by dividing the net profit by the net worth. Compliance cost was estimated for each business in the analysis and adjusted for Federal and State taxes. The adjusted cost was then subtracted from net profit data. The analysis found that the estimated overall change in ROE ranges from negligible to a decline in ROE of about two percent, with an average change in ROE of about one percent. A decrease of 10 percent in ROE is used by CARB as a threshold to indicate a potentially significant impact on profitability. According to CARB this threshold is consistent with the thresholds used by the USEPA and others (CARB Staff Report, June 6, 2000). Therefore, the CARB economic analysis concluded that most manufacturers of architectural coatings would be able to absorb the cost of the proposed amendments with no significant adverse economic impacts.

In addition, the estimated changes to ROE may be conservative for the following reasons. First, annualized costs of compliance were estimated using, in part, the current prices of raw materials. Raw material prices usually tend to fall as higher demand for these materials induces economy of scale production in the long run. Second, affected businesses may not absorb the costs of compliance, they may pass some or all of the costs on to consumers.

Companies that supply raw materials for existing noncompliant paints and coatings may experience a decline in demand for their products. On the other hand, those companies which supply resins, solvents, other chemicals and equipment for use in reformulating architectural

coatings could potentially benefit from the proposed amendments as they experience an increase in demand for their products.

Distributors will need to ensure proper distribution of products to the appropriate states. The Department does not anticipate any significant adverse economic impacts for distributors.

Persons who apply coatings for compensation, or painting contractors, must not purchase coatings from another state which has VOC content limits that exceed the proposed New Jersey VOC limits, and then apply them in New Jersey. In addition, they must follow the thinning instructions on the label, so as not to exceed the proposed VOC limits, and must keep containers closed when not in use. The Department does not anticipate any significant adverse economic impacts for painting contractors. Potential additional costs of the coatings used by contractors would be similar to the potential additional costs a consumer would experience as discussed below in "Potential Consumer Impact." As discussed below, the estimated potential average cost per gallon increase is $4.08 per gallon of coating, retail. In addition, the potential consumer impact analysis concluded that prices for general use flat and non-flat paints (eggshell, satin, semi-gloss, gloss), which account for about 60 percent of the sales volume of architectural coatings, are not expected to change significantly as a result of the proposed amendments.

**Potential Consumer Impact**

An estimated cost per gallon of coating that the manufacturers and retailers may pass on to the consumers by raising the price of coatings that need to be reformulated is discussed below. However, this estimate is conservative because the manufacturers may absorb some or all of the costs of compliance.

As shown in Table 1, the estimated producer (manufacturer) cost increase per gallon, based on the proposed New Jersey amendments, ranges from no cost to $6.02 per reformulated gallon, with an average of about $1.02 per gallon. Based on an assumed multiplier of four (that is, the distributor doubles the purchase price from the manufacturer, and the retailer doubles the purchase price from the distributor), this translates to approximately a $4.08 per gallon retail price increase, on average. With an average retail price ranging from about $18.50 to about $50 per gallon of noncompliant coating, the estimated average potential cost increase would equate to an eight percent to 22 percent retail price increase for reformulated coatings.

It was estimated by CARB that the majority of retail price increases, if any, would occur in the industrial maintenance and other commercial coating applications. However, the impact of the industrial maintenance coating limit will be less in New Jersey than in California due to the higher proposed VOC limit.

For ordinary household consumers, the projected impacts would most likely be less than the impacts discussed above. This is because household consumers primarily buy flat and non-flat coatings (such as household wall paint). General use flat and non-flat (eggshell, satin, semi-gloss, gloss) coatings account for about 60 percent of the sales volume of architectural coatings. The analysis projected no price increase for flat paints and a maximum potential price increase of $3.72 for non-flat paints. Prices for flat and non-flat paints are not expected to change significantly as a result of the proposed amendments. The reformulation of these categories of coatings do not impose a significant technical challenge to the paint and coating manufacturers as shown by the number of products that currently exist in the market that comply with the proposed VOC limits. In addition, consumers who do not wish to purchase the

reformulated coatings may still be able to buy coatings that currently exist in the market that comply with the proposed VOC limits. The competition from these existing compliant coatings will likely constrain any price increases for the reformulated coatings. Thus, for most household consumers who purchase coatings such as flat and non-flat wall paint, the proposed amendments should not have a significant impact on the prices such consumers encounter.

According to the CARB analysis, currently, there are no noticeable differences between the market prices for compliant and noncompliant products in California. Given the availability of good substitute products, it appears unlikely that affected businesses will pass on the cost increases to consumers, at least in the short run. In the long run, however, if businesses are unable to bring down their costs of doing business, they may pass their cost increases on to consumers.

**Cost Effectiveness**

The cost-effectiveness of a proposed limit is generally defined as the ratio of total dollars to be spent to comply with the limit (as an annual cost) to the mass reduction of the pollutant(s) to be achieved by complying with that limit (in annual pounds or tons). The cost-effectiveness is presented to show the proposal's cost-efficiency in reducing a pound of VOC.

As shown in Table 2, the estimated cost effectiveness of the proposed amendments for each product category ranges from no cost (net savings) to approximately $7.65 per pound of VOC reduced, with an average for all of the categories analyzed of $2.79 per pound of VOC reduced or $5,580 per ton of VOC reduced.

| **Table 2: Estimated Cost-Effectiveness for Architectural Coatings Based on Proposed Amendments to NJAC 7:27- 23** [1, 2] | |
|---|---|
| **Coating Category** | **Estimated Cost-Effectiveness** [3] **(dollars per pound VOC reduced)** |
| Flats | ($0.30) |
| Industrial Maintenance | $6.07 |
| Lacquer | $1.59 |
| Multicolor | $2.83 |
| Non-flat (low & medium-gloss) | $4.37 |
| Primers, Sealers, Undercoaters (PSU) | $7.65 |
| Quick Dry Enamel | $3.97 |
| Quick Dry PSU | ($0.25) |
| Stains | $2.14 |
| Swimming Pool Repair | $0.83 |
| WaterProofing Sealers | ($0.50) |
| **OVERALL RESULTS** | $2.79 [4] |

**Notes:**

1. Table source: CARB Staff Report for the Proposed Suggested Control Measure for Architectural Coatings, June 6, 2000. The table has been modified by CARB for the OTC model rule (and New Jersey rule) to account for a limit of 340 g/l for industrial maintenance.
2. Values in "( )" are negative (indicates potential cost savings).
3. Using 20 percent resin price increase assumption
4. Total annual costs divided by total annual emission reductions

The cost-effectiveness estimates in Table 2 assume a 20 percent increase in resin prices. CARB also calculated cost effectiveness with three other assumed resin prices which are 1) baseline or existing price, 2) a 10 percent increase and 3) a 50 percent increase. The CARB cost-effectiveness results ranged from $2.72 per pound of VOC reduced at baseline conditions to $3.88 per pound of VOC reduced with a 50 percent increase in resin price. These cost-effectiveness results are conservative for New Jersey and would be expected to be slightly lower for these proposed amendments due to the higher limit for industrial maintenance coatings in these amendments.

## Cost to the Department

Additional Department resources may be needed to implement the proposed amendments and new rules. Resources will be needed to organize the date code information submitted to the Department by the manufacturers and to continue to evaluate CARB research and technology reviews. Resources will also be needed to enforce the rule.

Additional information regarding the economic impact analysis can be found in either a report titled "Estimated VOC Emission Reductions and Economic Impact Analysis for Proposed Amendments to Architectural Coatings" prepared by the Department or in the CARB Staff Report for the Proposed Suggested Control Measure for Architectural Coatings, June 6, 2000. The Department's report may be downloaded from the Department's website at www.dep.state.nj/dep/aqm/aqmhome4.htm, or obtained by telephoning (609) 633-0530. The CARB report may be downloaded from CARB's website at http://www.arb.ca.gov/coatings/arch/sreport/sreport.htm.

## Environmental Impact

The Department expects the proposed amendments and new rules to have a significant and positive environmental impact. The primary environmental benefit will be a reduction in the emission of VOCs, which are precursor emissions that lead to the formation of tropospheric (ground level) ozone. As discussed earlier, ground level ozone is breathed by people and animals and comes into contact with crops and other vegetation, as well as man-made structures and surfaces. This exposure can cause a variety of adverse effects.

The amendments and new rules are also expected to reduce emissions of hazardous air pollutants (HAPs) (substances listed in 1990 Clean Air Act Title III, Sec. 112(b)) and toxic substances (substances listed in NJAC 7:27-17) such as hexane, methyl ethyl ketone, toluene,

ethylbenzene, xylenes, ethylene glycol, glycol ethers and benzene. In addition, the amendments and new rules will reduce $PM_{2.5}$ (fine particulate matter of 2.5 microns or less equivalent aerodynamic diameter), some of which is created from VOC emissions.

In the New Jersey 1996 Emission Inventory, volatile organic compound (VOC) emissions from architectural coatings were estimated to be approximately 87 tons per day, on a typical summer day. These emissions are from the following four inventory categories: architectural surface coatings, traffic paints, high performance maintenance coatings, and other special purpose coatings. (The VOC emissions estimates for these categories are based on USEPA guidance, USEPA, EIIP, Volume III, Chapter 3, "Architectural Surface Coatings," November 1995.) These emissions represent approximately nine percent of the total man-made VOC emissions in the inventory. For additional details on the derivation of these estimates see the "NJDEP State Implementation Plan Revision for the Attainment and Maintenance of the Ozone National Ambient Air Quality Standard, 1996 Actual Emission Inventory and Rate of Progress Plans for 2002, 2005 and 2007," dated March 31, 2001.

It is estimated that the proposed amendments will achieve a 31 percent reduction of the architectural coatings VOC emissions inventory, beyond the reduction achieved by New Jersey's existing architectural coating rules (and the USEPA National rule, which is generally equivalent in emission reductions to the existing New Jersey rule). As part of the regional effort to obtain additional emission reductions required to achieve the one-hour ozone standard, the OTC commissioned a study to quantify the emission reduction benefits of the six OTC rules being prepared for use on a regional basis (Pechan Control Measure Development Support Analysis of Ozone Transport Commission Model Rules, February 5, 2001). As shown in the regional study,

the architectural coatings rule is estimated to result in a reduction of VOC emissions of approximately 25 tons per day in New Jersey in 2005.

Additional details on how these estimates were derived are set forth in two reports titled "Estimated VOC Emission Reductions and Economic Impact Analysis for Proposed Amendments to Architectural Coatings" prepared by the NJDEP and "Control Measure Development Support Analysis of Ozone Transport Commission Model Rules" prepared by E.H. Pechan and Associates. These reports may be downloaded from the Department's website at www.dep.state.nj/dep/aqm/aqmhome4.htm, or obtained by telephoning (609) 633-0530. The Pechan report also shows the potential regional impact of the VOC reductions from the OTC model rule for other states in the ozone transport region.

## Federal Standards Analysis

Executive Order No. 27 (1994) and N.J.S.A. 52:14B-1 et seq. (P.L. 1995, c. 65) require State agencies that adopt, readopt or amend State regulations which exceed any Federal standards or requirements to include in the rulemaking document a Federal Standard Analysis.

The Department has performed a comparison of the proposed amendments to N.J.A.C. 7:27-23, Prevention of Air Pollution from Architectural Coatings and Consumer Products, to analogous Federal regulations, namely, 40 CFR § § 59.100 to 59.413, National Volatile Organic Compound Emission Standards for Consumer and Commercial Products. These Federal regulations have been promulgated pursuant to the Federal Clean Air Act and set forth the substantive Federal standards. Based on it's its review of these Federal regulations, the

Department has determined that the proposed amendments are more stringent than these Federal Standards.

**Policy Discussion**

The new rule and amendments are needed to fulfill a requirement, imposed by USEPA pursuant to the Federal Clean Air Act, 42 U.S.C. § § 7401 et seq., that New Jersey adopt sufficient control measures to address additional VOC (ozone precursor) emission reductions identified by USEPA as being needed for New Jersey to attain the one-hour ozone standard by the mandated attainment dates of 2005 for the New Jersey portion of the Philadelphia non-attainment area and 2007 for the New Jersey portion of the New York non-attainment area. Therefore, proposal of these new rules and amendments is necessary for the state to comply with Federal requirements.

One of the options that the USEPA offered New Jersey, and several other states, in addressing the additional emission reductions was that the state work through the Ozone Transport Region (OTR) to develop a regional strategy regarding the measures necessary to meet the additional reductions identified. OTR states were required to submit a State Implementation Plan (SIP) revision which identified the control measures to be adopted to address the emission reduction shortfall by October 31, 2001. New Jersey complied with this requirement.

New Jersey worked with the Ozone Transport Commission (OTC) and other jurisdictions in the OTR to develop a set of control measures to meet the additional emission reduction requirements by the mandated attainment dates. The architectural coatings rule is one of the control measures identified by the OTC group. The control measures were selected based on

their inventory emissions, potential emission reductions, technological feasibility of the proposal and timeliness of potential implementation. No other measures were found by the OTC that could substitute for those identified above and still meet the emission shortfall requirement. The VOC emission reductions from the architectural coating rule is the largest of the five VOC OTC rules, with approximately 41 percent of the total VOC emission reductions expected from the five VOC rules.

**Cost Benefit Analysis**

The amendments for architectural coatings would primarily impact manufacturers of architectural coatings including any person who hires another person to manufacture a coating for them. In order to comply with the rule, manufacturers may have to reformulate some of their products to meet the rule requirements or refrain from selling them in New Jersey for use in New Jersey. Distributors and suppliers will need to ensure proper distribution of products to the appropriate states. Also potentially affected are businesses that supply ingredients and equipment to these manufacturers, painting contractors and consumers.

As discussed in more detail in the Economic Impact above, the estimated producer (manufacturer) cost increase per gallon, based on the proposed New Jersey amendments, ranges from no cost to $6.02 per reformulated gallon, with an average of about $1.02 per gallon. The economic analysis concluded that most manufacturers of architectural coatings would be able to absorb the cost of the proposed amendments with no significant adverse economic impacts. The manufacturer may or may not choose to pass these costs on to the consumer. Based on an assumed multiplier of four (i.e.,the distributor doubles the purchase price from the manufacturer, and the retailer doubles the purchase price from the distributor), this translates to approximately

a $4.08 per gallon retail price increase, on average, if the costs were passed on to the consumer. With an average retail price ranging from about $18.50 to about $50 per gallon of non-compliant coating, the estimated average potential cost increase could equate to an 8 percent to 22 percent retail price increase for reformulated coatings.

Companies that supply raw materials for existing non-compliant paints and coatings may experience a decline in demand for their products. On the other hand, those companies which supply resins, solvents, other chemicals and equipment for use in reformulating architectural coatings could potentially benefit from the proposed amendments as they experience an increase in demand for their products.

Distributors will need to ensure proper distribution of products to the appropriate states. The Department does not anticipate any significant adverse economic impacts for distributors. Persons who apply coatings for compensation, or painting contractors, must not purchase coatings from another state which has VOC content limits that exceed the proposed New Jersey VOC limits, and then apply them in New Jersey. In addition, they must follow the thinning instructions on the label, so as not to exceed the proposed VOC limits, and must keep containers closed when not in use. The Department does not anticipate any significant adverse economic impacts for painting contractors. Potential additional costs of the coatings used by contractors would be similar to the potential additional costs a consumer would experience. As discussed above, the estimated potential average cost per gallon increase is $4.08 per gallon of coating, retail. In addition, the potential consumer impact analysis concluded that prices for general use flat and non-flat paints (eggshell, satin, semi-gloss, gloss), which account for about 60 percent of

the sales volume of architectural coatings, are not expected to change significantly as a result of the proposed amendments.

The Department anticipates the benefits of the proposed rule to be an increase in the quality of life and protection of human health, the environment and agriculture. The Department expects the proposed amendments to have a significant and positive environmental impact. The primary environmental benefit will be a reduction in the emission of VOCs, which are precursor emissions that lead to the formation of tropospheric (ground level) ozone. As discussed earlier, ground level ozone is breathed by people and animals and comes into contact with crops and other vegetation, as well as man-made structures and surfaces. This exposure can cause a variety of adverse effects. The rule is also expected to reduce emissions of hazardous air pollutants and toxic substances. In addition, the rule will reduce particulate matter of 2.5 microns or less equivalent aerodynamic diameter, some of which is created from VOC emissions. It is estimated that the proposed amendments will achieve a 31 percent reduction of the architectural coatings VOC emissions inventory, or approximately 25 tons per day in New Jersey in 2005.

As discussed in the Economic Impact above, the estimated cost effectiveness of the proposed amendments for each product category ranges from no cost (net savings) to approximately $7.65 per pound of VOC reduced, with an average for all of the categories analyzed of $2.79 per pound of VOC reduced or $5,580 per ton of VOC reduced.

In addition to the environmental and health benefits, economic benefits, which are difficult to quantify, may also be realized. Owners and employees of businesses will enjoy the environmental, health, and other social benefits of the new amendments. A reduction in air

pollution will lead to healthier and more productive workers. The Department is proposing this rule to meet USEPA requirements. Failure to achieve these reductions could subject New Jersey to economic sanctions, which would adversely affect all businesses and taxpayers in the State.

**Conclusion**

In proposing these amendments, the Department has balanced the need to protect the environment and the public health and to comply with the USEPA requirements, against any economic impacts of the rule. Based on the research and survey's done by CARB, the Department has determined that these amendments are achievable under current technology and are cost effective. The Department has determined that establishing these proposed amendments, even though more stringent than the Federal rule, are essential in order to meet the ozone precursor emission reduction requirements by the required attainment dates, and to protect the environment and the public health.

**Jobs Impact**

The Economic Impact above concluded that most manufacturers of architectural coatings would be able to absorb the cost of compliance with the proposed amendments and new rules with no significant adverse economic impacts. Additionally, manufacturers may choose to pass on the cost of compliance to the consumer, either partially or wholly. Based on this conclusion, the Department does not anticipate these proposed amendments and new rules to have a significant negative impact on employment and jobs in New Jersey. In some cases additional jobs may be created in the process of reformulating new products for sale in New Jersey.

The VOC limits in the proposed amendments will primarily impact architectural coating manufacturers (including any person who hires another person to manufacture a coating for them for compensation). However, it is recognized that other industries could also be impacted to a lesser amount which is difficult to quantify. These industries include distributors, "upstream" suppliers, who supply resins, containers, solvents, and other chemicals used in architectural coatings, and businesses that use architectural coatings. Also potentially affected are painting contractors.

Distributors and suppliers will need to ensure proper distribution of products to the appropriate states. Companies that supply raw materials for existing noncompliant paints and coatings may experience a decline in demand for their products. On the other hand, those companies which supply resins, solvents, other chemicals and equipment for use in reformulating architectural coatings could potentially benefit from the proposed amendments as they experience an increase in demand for their products. Therefore, while some individual businesses may be affected adversely, the proposed amendments may provide business opportunities for existing businesses or result in the creation of new businesses, which may result in the creation of additional jobs.

As discussed in the Economic Impact above, the Department does not anticipate any significant adverse economic impacts for painting contractors. Therefore, the Department does not anticipate these proposed amendments and new rules to have a significant adverse impact on employment and jobs in New Jersey related to painting contractors.

Additional Department resources may be needed to implement the proposed amendments and new rules. Resources will be needed to organize the date code information submitted to the Department by the manufacturers and to continue to evaluate CARB research and technology reviews. Resources will also be needed to enforce the rules.

## Agriculture Industry Impact

Pursuant to P.L. 1998, c. 48, adopted on July 2, 1998, the Department has evaluated the proposed amendments to determine their nature and extent on the agriculture industry.

The Department expects the proposed amendments to have a positive impact on the State's agriculture industry. The primary environmental benefit will be a reduction in VOCs, which are precursor emissions that lead to the formation of tropospheric (ground level) ozone. As discussed in the Social Impact above, ground level ozone is breathed by or comes in contact with crops and other vegetation as well as people and animals.

In addition to its health effects, ground-level ozone interferes with various plants' ability to produce and store nutrients (A USEPA Fact sheet on the New 8-Hour Ozone and Fine (2.5 microns) Particulate Matter Health Standards, July 1997). This causes the plants to become more susceptible to disease, insects, other pollutants and harsh weather. This impacts annual crop production throughout the United States, resulting in significant losses, and injures native vegetation and ecosystems.

The proposed amendments and new rules will have a positive environmental impact by reducing emissions of VOC, thereby reducing the formation of ground level ozone. The

reduction of VOCs as a result of the amendments and new rules will result in a positive impact on the agricultural industry.

## Regulatory Flexibility Analysis

As required by the New Jersey Regulatory Flexibility Act, N.J.S.A. 52:14B-16 et seq., the Department has evaluated the reporting, recordkeeping, and other compliance requirements that the proposed amendments would impose upon small businesses. The Regulatory Flexibility Act defines the term "small business" as "any business which is a resident in this State, independently owned and operated and not dominant in its field, and which employs fewer than 100 fulltime employees." Based upon this definition, the Department does expect that small businesses will be subjected to additional requirements by the proposed amendments.

The amendments for architectural coatings would primarily impact manufacturers of architectural coatings (including any person who hires another person to manufacture a coating for them). In order to comply with the amendments, manufacturers may have to reformulate some of their products to meet the rule requirements or refrain from selling them in New Jersey for use in New Jersey. Distributors and suppliers will need to ensure proper distribution of products to the appropriate states. Also potentially affected are businesses that supply ingredients and equipment to these manufacturers. Also potentially affected are painting contractors.

According to the 1998-1999 Rauch Guide to the U.S. Paint Industry, there are approximately 40 architectural coating manufacturers located in New Jersey and approximately 26 of these manufacturers have 100 or fewer employees. The proposed amendments may affect

these small business manufacturers, depending on the products they manufacture and the size of the containers. Manufacturers may have to reformulate products or refrain from selling their products in New Jersey.

The Department does not anticipate that small businesses will need to employ professional services in order to comply with the administrative requirements of the proposed rule. The labeling, administrative and recordkeeping requirements are not significantly different than the existing rule. There may be some businesses that need to employ a consultant to assist in the reformulation of products, or obtain additional employees to assist in the reformulation of products.

As discussed in more detail in the Economic Impact analysis, the estimated producer (manufacturer) cost increase per gallon, based on the proposed New Jersey amendments, ranges from no cost to $6.02 per reformulated gallon, with an average of about $1.02 per gallon. The economic analysis concluded that most manufacturers of architectural coatings would be able to absorb the cost of the proposed amendments with no significant adverse economic impacts. In addition, the manufacturer may or may not choose to pass these costs on to the consumer.

Companies that supply raw materials for existing non-compliant paints and coatings may experience a decline in demand for their products. On the other hand, those companies which supply resins, solvents, other chemicals and equipment for use in reformulating architectural coatings could potentially benefit from the proposed amendments as they experience an increase in demand for their products.

Distributors will need to ensure proper distribution of products to the appropriate states. The Department does not anticipate any significant adverse economic impacts for distributors. Persons who apply coatings for compensation, or painting contractors, must not purchase coatings from another state which has VOC content limits that exceed the proposed New Jersey VOC limits, and then apply them in New Jersey. In addition, they must follow the thinning instructions on the label, so as not to exceed the proposed VOC limits, and must keep containers closed when not in use. The Department does not anticipate any significant adverse economic impacts for painting contractors. Potential additional costs of the coatings used by contractors would be similar to the potential additional costs a consumer would experience. As discussed in the Economic Impact above, the estimated potential average cost per gallon increase is $4.08 per gallon of coating, retail. In addition, the potential consumer impact analysis concluded that prices for general use flat and non-flat paints (eggshell, satin, semi-gloss, gloss), which account for about 60 percent of the sales volume of architectural coatings, are not expected to change significantly as a result of the proposed amendments.

There are numerous flexibility options in the proposed amendments. The operative date for compliance with the proposed VOC limits is January 1, 2005. This future operative date gives industry time to reformulate products to comply with the rules. The operative date in the proposed amendments is two years after the operative date for the VOC limits in the CARB SCM, of January 1, 2003. The operative date in the proposed amendments is two and one half years after the operative date for similar VOC limits in the California South Coast Air Quality Management District architectural rules. Therefore, manufacturers that sell products nationally will have already reformulated to be compliant in California.

The proposed amendments do not apply to aerosol coating products or any architectural coating that is sold in a container with a volume of one liter or less. In addition, an exception for the thinning of lacquers is included in the rules, to avoid blushing of the finish during days with relative humidity greater than 70 percent and temperatures below 65 degrees Fahrenheit. To reduce burdensome labeling requirements, the proposed rulemaking does not require the inclusion of the products manufacture date on the product label. Rather, a date code, which is generally used by industry is proposed as acceptable.

The OTC rule development workgroup, of which New Jersey was a part, added flexibility to the CARB SCM rule to ease the burden on business. Specifically, six specialty categories which are included in the National rule, that are not included in the CARB SCM, have been added to the proposed amendments. These categories allow a higher VOC limit for coatings that meet the coating category definition. The sell through provision in the CARB SCM has been modified so that any product manufactured before the operative date of the proposed limits can be sold, with no deadline for sell through. The higher industrial maintenance coating limit of 340 grams per liter in the CARB SCM has been chosen to allow more flexibility in the use of these products and when they are applied. To reduce burdensome reporting requirements, reporting is not required on a periodic basis, but rather, is required only upon request by the Department.

The Department has added a provision to the rules that helps protect painting contractors from violation of the rules without their knowledge, as long as the coating is purchased within or delivered to the State of New Jersey or within a state that has identical or more stringent VOC content limits. The intent of this provision is that, although persons should not knowingly go to

another state to purchase non-compliant paints, they should not be the responsible party if a non-compliant paint was purchased within a complying state.

In proposing these amendments, the Department has balanced the need to protect the environment and the public health and to comply with the USEPA against any economic impacts of the rule upon businesses. No further exemption from coverage can be provided to small businesses, if the full effect of these amendments is to be achieved. Owners and employees of small businesses will enjoy the environmental, health, and other social benefits of the new amendments. Furthermore, securing the VOC emission reductions that would be realized through the new amendments is required by the EPA pursuant to the Federal Clean Air Act. Failure to achieve these reductions could subject New Jersey to economic sanctions, which would adversely affect all businesses in the State including small businesses. The Department has determined that to exempt small businesses from any requirements or to reduce any requirements would compromise the goals of the rule and the emission reductions needed to reach attainment of the ozone standards.

## Smart Growth Impact

Executive Order No. 4 (2002) requires State agencies which adopt, amend or repeal State regulations to include in the rulemaking document a Smart Growth Impact statement that describes the impact of the proposed amendments and new rules on the achievement of smart growth and implementation of the State Development and Redevelopment Plan (State Plan). The proposed amendments and new rules in the State's Prevention of Air Pollution from Architectural Coatings rules do not relate to the State's official land use and development policies in a way that would either encourage or discourage any development or redevelopment

in this State contrary to the guiding principles of the State Plan. As a result, the Department does not expect this rulemaking to have an impact on the State's achievement of smart growth.

**Full text** of the proposal follows (additions indicated in boldface **thus**; deletions indicated in brackets [thus]):

**CHAPTER 27**

**AIR POLLUTION CONTROL**

**SUBCHAPTER 23 PREVENTION OF AIR POLLUTION FROM ARCHITECTURAL COATINGS [AND CONSUMER PRODUCTS]**

**7:27-23.1 Applicability**

(a) This subchapter prescribes the rules of the Department for limiting the VOC content of**, and using,** architectural coatings **[**and consumer products. The following sections shall govern the content of architectural coatings and consumer products used and provided for use in the State and the method to be followed by manufacturers, distributors, and retailers to assure these standards are met**]**.

(b) As set forth at N.J.A.C. 7:27-17.4(c), this subchapter's requirements for the implementation of control measures, including, but not limited to, requirements for the installation and use of control apparatus, or the use of compliant coatings, shall apply with full force to Group II **Toxic Substances (**TXS**) [**until the Department amends this rule in response to EPA rulemaking or otherwise**]**.

**(c) Except as provided in (d) and (e) below, this subchapter is applicable to any person who:**

**1. Manufactures, blends, repackages, supplies or distributes an architectural coating for sale within the State of New Jersey;**

**2. Sells or offers for sale an architectural coating within the State of New Jersey; and**

**3. Applies an architectural coating for compensation within the State of New Jersey.**

**(d) The provisions of this subchapter shall not apply to**:

**1. An architectural coating that is sold or manufactured for use outside of the State of New Jersey or for shipment to other manufacturers for reformulation or repackaging, provided that documentation indicating the final destination of such architectural coating shall be made available to representatives of the Department upon request;**

**2. An aerosol coating product; or**

**3. An architectural coating that is sold in a container with a volume of one liter (1.057 quart) or less.**

**(e) The provisions of N.J.A.C. 7:27-23.3(a) shall not apply to any person who applies an architectural coating for compensation within the State of New Jersey provided that either (e)1 or (e) 2 below is met:**

**1. The architectural coating was purchased from a location within the State of New Jersey or within a state, as identified at (f) below, that has an architectural coating rule with maximum allowable VOC content limits identical with or more stringent than New Jersey; or**

**2. The coating was purchased and delivered by the manufacturer or distributor to a location in the State of New Jersey or to a state, as identified at (f) below, that has an architectural coating rule with maximum allowable VOC content limits identical with or more stringent than New Jersey. For a coating sold in this manner, it is the responsibility of the seller to ensure compliance with these rules.**

**(f) The Department shall publish in the New Jersey Register a notice of administrative change revising the list of states below when any state promulgates maximum allowable VOC content limits for architectural coatings that are identical with or more stringent than the VOC content limits set forth in this subchapter. This list is for informational purposes only. The most current list of states can be obtained from the Department's Office of Air Quality Management at 401 East State Street, 7th floor, P.O. Box 418, Trenton, New Jersey 08625-0418:**

**1. Delaware.**

**7:27-23.2 Definitions**

The following words and terms, when used in this subchapter, have the following meanings, unless the context clearly indicates otherwise.

**[**"Air freshener" means any product available to a direct consumer which is marketed for the purpose of masking odors, providing a scent, or deodorizing, including, but not limited to, sprays, wicks, powders, and crystals. This does not include products for use on the human body.**]**

"All other architectural coatings" means any **architectural** coating which does not meet any **of the** other architectural coating definition**s contained within this section.**

**"Adhesive" means a chemical substance that is applied for the purpose of bonding two surfaces together other than by mechanical means.**

**"Aerosol coating product" means a pressurized coating product containing pigments or resins that dispenses product ingredients by means of a propellant, and is packaged in a disposable can for hand-held application, or for use in specialized equipment for ground traffic/marking applications.**

**"Antenna coating" means a coating formulated and recommended exclusively for application to equipment and associated structural appurtenances that are used to receive or transmit electromagnetic signals.**

**"Antifouling coating" means a coating formulated and recommended for application to submerged stationary structures and their appurtenances to prevent or reduce the attachment of marine or freshwater biological organisms. To qualify as an antifouling coating, the coating must be registered as an antifouling coating under the Federal Insecticide, Fungicide and Rodenticide Act, 7 U.S.C. § § 136 et seq.**

**"Appurtenance" means an 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 **[**surface coating formulation applied and dried at ambient conditions, and used to coat all or parts of stationary structures and their appurtenances, such as buildings, bridges, the interior or exterior of houses, and other items such as signs, curbs and pavements.**]** **coating to be applied at the site of installation to the following: stationary structures or their appurtenances, portable buildings, pavements, or curbs. This term does not include adhesives and coatings applied in shop applications or to non-stationary structures such as airplanes, ships, boats, railcars, and automobiles.**

. . .

**"BAAQMD" means the Bay Area Air Quality Management District, one of 35 air pollution control agencies in California, which regulate air quality in California by jurisdiction of the district, and are overseen by the California Air Resouces Board (CARB).**

**"Bitumens" means black or brown materials including, but not limited to, asphalt, tar, pitch, and asphaltite that are soluble in carbon disulfide, consist mainly of hydrocarbons, and are obtained from natural deposits or as residues from the distillation of crude petroleum or coal.**

"Bituminous coating" or "bituminous sealer" means a coating material, consisting mainly of hydrocarbons and soluble in carbon disulfide, **[**which**]** **that** is obtained from natural deposits or as residue from the distillation of crude petroleum oils or of low grades of coal.

**"Bituminous roof coating" means a coating that incorporates bitumens and that is formulated and recommended exclusively for roofing.**

**"Bituminous roof primer" means a primer that incorporates bitumens and that is formulated and recommended exclusively for roofing.**

"Bond breaker" means **[**any coating whose sole purpose, when applied between layers of concrete, is to prevent the freshly poured top layer of concrete from bonding to the substrate on which it is poured.**]** **a coating that is formulated and recommended for application between layers of concrete to prevent a freshly poured top layer of concrete from bonding to the layer over which it is poured.**

**"CARB" means the California Air Resouces Board, which oversees all air pollution control efforts in California, including the activities of 35 independent local air districts. California state law vests CARB with direct authority to regulate pollution from motor vehicles, fuels, and consumer products.**

**"CARB SCM" means the California Air Resources Board Suggested Control Measure for Architectural Coatings, adopted June 22, 2000.**

**"CARB survey" means the California Air Resources Board's 1998 Architectural Coatings Survey Results Final Report, dated September 1999, or any subsequent CARB survey, which is incorporated by reference herein. A copy of this survey can be found on the CARB website at http://www.arb.ca.gov.**

**"Calcimine recoater" means a flat solvent-borne coating formulated and recommended on its label specifically for recoating calcimine painted ceilings and other calcimine painted substrates.**

**"Coating" means a material applied onto or impregnated into a substrate for protective, decorative, or functional purposes. Such materials include, but are not limited to, paints, varnishes, sealers, and stains.**

**"Colorant" means a concentrated pigment dispersion in water, solvent, and/or binder that is added to an architectural coating after packaging in sale units to produce the desired color.**

"Concrete curing compound" means **[**any**]** **a** coating **[**whose sole purpose is to retard the evaporation of water from the surface of freshly cast concrete, thereby strengthening it.**]** **formulated and recommended for application to freshly poured concrete to retard the evaporation of water.**

**"Concrete surface retarder" means a mixture of retarding ingredients such as extender pigments, primary pigments, resin, and solvent that interact chemically with the cement to prevent hardening on the surface where the retarder is applied, allowing the retarded mix of cement and sand at the surface to be washed away to create an exposed aggregate finish.**

**[**"Consumer insecticide" means those insecticide formulations available to a direct consumer which are not classified as restricted-use pesticides under the provisions of N.J.A.C. 7:30-2 of the New Jersey Pesticide Control Code and which are liquids marketed in containers of one gallon (3.79 liters) or less, or which are marketed in pressurized containers of four pounds (1.8 kilograms) or less net weight.

"Consumer product" means any of the wide variety of household products such as architectural coatings, toiletries, and cleaning agents, used by a direct or indirect consumer and available in retail markets, and includes, but is not limited to, personal products, pesticides, automotive products, cleaners, air fresheners, and food products.**]**

**"Conversion varnish" means a clear acid curing coating with an alkyd or other resin blended with amino resins and supplied as a single component or two-component**

**product. Conversion varnishes produce a hard, durable, clear finish designed for professional application to wood flooring. The film formation is the result of an acid-catalyzed condensation reaction, affecting a transetherification at the reactive ethers of the amino resins.**

**[**"Defoliant" means any substance or mixture of substances intended to cause the leaves or foliage to drop from a plant, with or without causing abscission.**]**

. . .

**[**"Desiccant" means any substance or mixture of substances intended for artificially accelerating the drying of plant tissue.

"Direct consumer" means an individual who utilizes a consumer product in the satisfaction of his or her personal wants.**]**

**"Distributor" means a person to whom a product is sold or supplied for the purpose of resale or distribution in commerce, except that manufacturers, retailers, and consumers are not distributors.**

"Dry fog coating" means **[**any spray coating which is formulated so that overspray droplets dry before falling on floors and other surfaces.**]** **a coating formulated and recommended only for spray application such that overspray droplets dry before subsequent contact with incidental surfaces in the vicinity of the surface coating activity.**

. . .

**"Exempt compound" means a compound excluded under the definition of volatile organic compound (VOC) within this subchapter.**

**"Faux finishing coating" means a coating formulated and recommended 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.**

**"Fire-resistive coating" means an opaque coating formulated and recommended to protect the structural integrity, by increasing the fire endurance of interior or exterior steel and other structural materials, that has been fire tested and rated by a testing agency and approved by building code officials for use in bringing assemblies of structural materials into compliance with Federal, state, and local building code requirements. The fire-resistive coating and the testing agency must be approved by building code officials. The fire-resistive coating shall be tested in accordance with ASTM Designation E 119-00a, including any subsequent revisions, which is incorporated by reference at N.J.A.C. 7:27-23.4(e)2.**

"Fire retardant coating" means **[**any coating which is designed to retard fire and which will reduce the rate of flame spread on the surface of a substrate to which the coating has been applied, resist ignition when exposed to high temperatures, or insulate the substrate to which such a coating has been applied and thus prolong the time required to reach ignition temperature.**]** **a coating labeled and formulated to retard ignition and flame spread, that has**

**been fire tested and rated by a testing agency and approved by building code officials for use in bringing building and construction materials into compliance with federal, state, and local building code requirements. The fire-retardant coating and the testing agency must be approved by building code officials. The fire-retardant coating shall be tested in accordance with ASTM Designation E 84-01, including any subsequent revisions, which is incorporated by reference at N.J.A.C. 7:27-23.4(e)1.**

"Flat **[**architectural**]** coating" means **[**any**]** **a** coating **[**which**]** **that is not defined under any other definition in this subchapter and that** registers a gloss of 15 or less on a glossmeter held at an 85 degree angle to the coated surface or less than five on a glossmeter held at a 60 degree angle, **according to ASTM Designation D 523-89 (1999), including any subsequent revisions, which is incorporated by reference at N.J.A.C. 7:27-23.4(e)3.** **[**or which is labeled as a flat coating.**]**

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

**"Flow coating" means a coating that is used by electric power companies or their subcontractors to maintain the protective coating systems present on utility transformer units.**

**"Form-release compound" means a coating formulated and recommended for**

**application to a concrete form to prevent the freshly poured concrete from bonding to the form. The form may consist of wood, metal, or some material other than concrete.**

**"Formulation data" means a list of the materials used to create a coating based on information from the coating manufacturer, rather than on information from a coating test method used after the product is manufactured. Manufacturer's formulation data may include, but is not limited to, information on density, VOC content, and coating solids content.**

. . .

"High **[**heat resistant**]** **temperature** coating" means **[**any coating formulated specifically for use in high temperature applications. These coatings are designed to withstand temperatures in excess of 400 degrees Fahrenheit.**]** **a high performance coating formulated and recommended for application to substrates exposed continuously or intermittently to temperatures above 204 degrees Centigrade (400 degrees Fahrenheit).**

**"Impacted immersion coating" means a high performance maintenance coating formulated and recommended for application to steel structures subject to immersion in turbulent, debris-laden water. These coatings are specifically resistant to high energy impact damage caused by floating ice or debris.**

**[**"Indirect consumer" means a person who utilizes a consumer product in providing a service to others.**]**

**"Industrial maintenance coating" means a high performance architectural coating, including primers, sealers, undercoaters, intermediate coats, and topcoats, formulated for application to substrates exposed to one or more of the following extreme environmental conditions and labeled as specified in N.J.A.C. 7:27-23.5(b)3:**

**1. Immersion in water, wastewater, or chemical solutions (aqueous and non-aqueous solutions), or chronic exposures of interior surfaces to moisture condensation;**

**2. Acute or chronic exposure to corrosive, caustic, or acidic agents, or to chemicals, chemical fumes, or chemical mixtures or solutions;**

**3. Repeated exposure to temperatures above 121 degrees Centigrade (250 degrees Fahrenheit);**

**4. Repeated (frequent) heavy abrasion, including mechanical wear and repeated (frequent) scrubbing with industrial solvents, cleansers, or scouring agents; and/or**

**5. Exterior exposure of metal structures and structural components.**

**[**"Industrial maintenance primer" means any coating which is intended to be applied to the surface of a substrate, prior to the application of an industrial maintenance topcoat, to provide a firm bond between the substrate and subsequent coatings.

"Industrial maintenance topcoat" means any high performance coating which is formulated for the purpose of protecting against heavy abrasion or water immersion, or providing resistance to chemicals, corrosion, temperature extremes, electric potential, or solvents.

"Insect" means any of the numerous small invertebrate animals generally having the body more or less obviously segmented, for the most part belonging to the class insecta, comprising six-legged, usually winged forms, as, for example, beetles, bugs, bees and flies, and to other allied classes of arthropods whose members are wingless and usually have more than six legs, as, for example, spiders, mites, ticks, centipedes and wood lice.

"Insecticide" means any substance or mixture of substances labeled, designed, or intended for use in preventing, destroying, repelling, or mitigating any insect, and includes, but is not limited to, ant and roach killers, room and outdoor foggers, flea and tick sprays, and personal and area insect repellants.**]**

"Label" means anything functioning as a means of identification, such as any paper, plastic or printed inscription, placed on the container **[**provided to direct or indirect consumers**]** **of a product**.

"Lacquer" means a clear or **[**pigmented coating formulated with nitrocellulose or synthetic resins which dries by evaporation without chemical reaction and provides a quick drying, solid protective film.**]** **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.**

**"Lacquer, clear brushing" means a clear wood finish, excluding clear lacquer sanding sealers, that is formulated with nitrocellulose or synthetic resins to dry by solvent evaporation without chemical reaction and to provide a solid, protective film; intended exclusively for application by brush; and labeled as specified in N.J.A.C. 7:27-23.5(b)4.**

**"Low solids coating" means a coating containing 0.12 kilogram or less of solids per liter (one pound or less of solids per gallon) of coating material.**

**"Magnesite cement coating" means a coating formulated and recommended for application to magnesite cement decking to protect the magnesite cement substrate from erosion by water.**

**"Manufacturer" means a person who manufactures, imports, assembles, processes, produces, packages, repackages, or relabels a product. Manufacturer also includes any person for whom the product is manufactured, or by whom the product is distributed, if that person is identified as such on the product label. Manufacturer also includes any person that hires another person to manufacture a product for compensation.**

**"Manufacturers maximum recommendation" means the maximum recommendation for thinning that is indicated on the label or lid of the coating container.**

"Mastic texture coating" means **[**any**]** **a** coating, except waterproof mastic coatings, **[**which**]** **that** is formulated **and recommended** to cover holes and minor cracks and to conceal surface irregularities, **and is applied in a single coat of at least 10 mils (0.010 inch) dry film thickness.**

"Metallic pigmented coating" means **[**any coating which is formulated with a minimum of 0.4 pounds per gallon (0.05 kilograms per liter) of metallic pigment.**]** **a coating containing at least 48 grams of elemental metallic pigment per liter of coating as applied (0.4 pounds per gallon), when tested in accordance with SCAQMD Method 318-95, including any subsequent revisions, which is incorporated by reference at N.J.A.C. 7:27-23.4(d)4.**

"Multicolored coating" means **[**any**]** **a** coating **[**which**]** **that** exhibits more than one color when applied in a single coat and **[**which**]** **that** is packaged in a single container.

"Non-flat **[**architectural**]** coating" means a coating **[**which**]** **that is not defined under any other definition in this subchapter that** registers a gloss of 15 or greater on a glossmeter held at an 85 degree angle to the coated surface or five or greater on a glossmeter held at a 60 degree angle, **according to ASTM Designation D 523-89 (1999), including any subsequent revisions, which is incorporated by reference at N.J.A.C. 7:27-23.4(d)3.**

**"Non-flat high gloss coating" means a non-flat coating that registers a gloss of 70 or above on a 60 degree meter according to ASTM Designation D 523-89 (1999), including any subsequent revisions, which is incorporated by reference at N.J.A.C. 7:27-24.4(e)3.**

**"Non-industrial use" means any use of architectural coatings except in the construction or maintenance of any of the following: facilities used in the manufacturing of goods and commodities; transportation infrastructure, including highways, bridges, airports and railroads; facilities used in mining activities, including petroleum extraction; and utilities infrastructure, including power generation and distribution systems, and water treatment and distribution systems.**

**[**"Normal environmental conditions" means temperatures above 50 degrees Fahrenheit (14 degrees Centigrade).**]**

**"Nuclear coating" means a protective coating formulated and recommended to seal porous surfaces such as steel (or concrete) that otherwise would be subject to intrusion by radioactive materials. These coatings must be resistant to long-term (service life) cumulative radiation exposure (ASTM Method D 4082–02, Standard Test Method for Effects of Gamma Radiation on Coatings for Use in Light-Water Nuclear Power Plants, including any subsequent revisions, which is incorporated by reference at N.J.A.C. 7:27-23.4(e)8); relatively easy to decontaminate; and resistant to various chemicals to which the coatings are likely to be exposed (ASTM Method D 3912–95 (2001), Standard Test Method for Chemical Resistance of Coatings Used in Light-Water Nuclear Power Plants, including any subsequent revisions, which is incorporated by reference at N.J.A.C. 7:27-23.4(e)9).**

**[**"Opaque stain" means any stain not classified as a semitransparent stain.**]**

. . .

**[**"Pest" means any insect, rodent, nematode, fungus, weed, or any other form of terrestrial or aquatic plant or animal life, or virus, bacteria, or other micro-organism (except viruses, bacterial or other micro-organisms on or in living man or other animals) which is injurious to health or the environment.

"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" shall not include any substance or mixture of substances which the EPA does not consider to be a pesticide.

"Plant regulator" means any substance or mixture of substances, intended through physiological action, for accelerating or retarding the rate of growth or rate of maturation, or for otherwise altering the behavior of ornamental or crop plants or the produce thereof, but shall not include substances to the extent that they are intended as plant nutrients, trace elements, nutritional chemicals, plant inoculants, and soil amendments.**]**

**“Post-consumer coating” means a finished coating that would have been disposed of, having completed its usefulness to a consumer, and does not include manufacturing wastes.**

**“Pre-treatment wash primer” means a primer that contains a minimum of 0.5 percent acid, by weight, when tested in accordance with ASTM Designation D 1613-02, including any subsequent revisions, which is incorporated by reference at N.J.A.C. 7:27-**

**23.4(e)5, that is formulated and recommended for application directly to bare metal surfaces to provide corrosion resistance and to promote adhesion of subsequent topcoats.**

**[**"Primer, sealer, and undercoater" means any coating which is intended to be applied to the surface of a substrate to perform one or more of the following functions: provide a firm bond between the substrate and subsequent coats; protect porous substrates; prevent subsequent coatings from being absorbed by the substrate; prevent harm to subsequent coatings by materials in the substrate; provide a smooth surface for subsequent coats; seal fire, smoke, or water damage; neutralize odors; block stains; block efflorescence; condition chalky surfaces; or coat acoustical materials without affecting their acoustical properties.**]**

**"Primer" means a coating formulated and recommended for application to a substrate to provide a firm bond between the substrate and subsequent coats.**

**"Quick-dry enamel" means a non-flat coating that is labeled as specified in N.J.A.C. 7:27-23.5(b)7 and that is formulated to have the following characteristics:**

**1. It is capable of being applied directly from the container under normal conditions with ambient temperatures between 16 and 27 degrees Centigrade (60 and 80 degrees Fahrenheit);**

**2. When tested in accordance with ASTM Designation D 1640-95 (1999), including any subsequent revisions, which is incorporated by reference at N.J.A.C. 7:27-23.4(e)6, it sets to touch in two hours or less, is tack free in four**

**hours or less, and dries hard in eight hours or less by the mechanical test method; and**

**3. Has a dried film gloss of 70 or above on a 60 degree meter, in accordance with ASTM Designation D 523-89(1999), including any subsequent revisions, which is incorporated by reference at N.J.A.C. 7:27-23.4(e)3.**

"Quick-dry primer, sealer, and undercoater" means **[**any primer, sealer or undercoater which is intended to be applied to the surface of a substrate to perform one or more of the following functions: provide a firm bond between the substrate and subsequent coats; seal fire, smoke, or water damage; block stains; or condition porous surfaces; and which dries to touch within one-half hour and can be recoated in two hours, as determined by ASTM-D-1640, or other method approved by the Department based on a study of comparability data.**]** **a primer, sealer, or undercoater that is dry to the touch in 30 minutes and can be re-coated in two hours when tested in accordance with ASTM Designation D 1640-95 (1999), including any subsequent revisions, which is incorporated by reference at N.J.A.C. 7:27-23.4(e)6.**

**"Recommended" means, for coatings manufactured before January 1, 2005, recommended by the manufacturer either on the container label, in literature describing the product or on the manufacturer's website, and for coatings manufactured on or after January 1, 2005, recommended by the manufacturer on the coating container's label only.**

**"Recycled coating" means an architectural coating formulated such that not less than 50 percent of the total weight consists of secondary and post-consumer coating, with not less than 10 percent of the total weight consisting of post-consumer coating.**

**"Residence" means an area where people reside, dwell or lodge, including, but not limited to, single and multiple family dwellings, condominiums, townhomes, mobile homes, apartment complexes, motels, and hotels.**

**"Retailer" means any person who owns, leases, operates, controls, or supervises a retail outlet.**

**"Retail outlet" means any establishment at which products are sold, supplied, or offered for sale directly to consumers.**

"Roof coating" means **[**any coating which is formulated for the sole purpose of preventing penetration of the substrate by water, including but not limited to, bituminous roof and waterproof mastic coatings.**]** **a non-bituminous coating formulated and recommended exclusively for application to roofs for the primary purpose of preventing penetration of the substrate by water or reflecting heat and ultraviolet radiation. Metallic pigmented roof coatings, that meet the definition of metallic pigmented coatings, shall not be considered roof coatings, but shall be considered metallic pigmented coatings.**

**[**"Room fogger" means any pressurized consumer insecticide used in a room empty of occupants in order to mitigate infestations of insects such as fleas or cockroaches.**]**

**"Rust preventive coating" means a coating formulated exclusively for non-industrial use to prevent the corrosion of metal surfaces and labeled as specified in N.J.A.C. 7:27-23.5(b)5. The coating may be used for industrial use, if the coating complies with the industrial maintenance coating VOC limit specified at N.J.A.C. 7:27-23.3(i) Table 1.**

**"Sanding sealer" means a clear or semi-transparent wood coating formulated and recommended 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, shall not be considered a sanding sealer, but shall be considered a lacquer.**

**"SCAQMD" means the South Coast Air Quality Management District, one of 35 air pollution control agencies in California, which regulate air quality in California by jurisdiction of the district, and are overseen by the California Air Resouces Board (CARB).**

**"Sealer" means a coating formulated and recommended for application to a substrate for one or more of the following purposes: to prevent subsequent coatings from being absorbed by the substrate, or to prevent harm to subsequent coatings by materials in the substrate.**

**""Secondary coating (rework)" means a finished coating or a fragment of a finished coating from a manufacturing process that cannot be sold for the intended purpose and would otherwise be disposed of as a manufacturing waste.**

**[**"Semitransparent stain" means any coating which is formulated to change the color of a surface but not conceal or change the texture of the surface.**]**

"Shellac" means **[**any**]** **a** clear or pigmented coating formulated solely with the resinous secretions of the lac beetle (laccifier lacca), thinned with alcohol, and dried by evaporation without a chemical reaction.

**"Shop application" means application of a coating to a product or a component of a product in or on the premises of a factory or a shop as part of a manufacturing, production, or repairing process (for example, original equipment manufacturing coatings).**

"Sign paint **or graphic arts coating**" means **[**any coating which is marketed solely for the application to indoor or outdoor signs, including lettering enamels, poster colors, and bulletin colors.**]** **a coating formulated and recommended for hand-application by artists, using brush or roller techniques, to indoor and outdoor signs (excluding structural components) and murals including letter enamels, poster colors, copy blockers, and bulletin enamels.**

**"Specialty primer, sealer, and undercoater" means a coating that is formulated for application to a substrate to seal fire, smoke or water damage; to condition excessively chalky surfaces; or to block stains, and is labeled as specified in N.J.A.C. 7:27-23.5(b)6. An excessively chalky surface is one that is defined as having a chalk rating of four or less as**

**determined by ASTM Designation D 4214-98, including any subsequent revisions, which is incorporated by reference at N.J.A.C. 7:27-23.4(d)7.**

**"Stain" means a clear, semi-transparent, or opaque coating formulated to change the color of a surface, but not conceal the grain pattern or texture.**

"Substrate" means **[**any**]** **a** material to which an architectural coating is applied.

"Swimming pool coating" means **[**any coating used on the interior surface of swimming pools which is specifically formulated to resist swimming pool chemicals.**]** **a coating formulated and recommended to coat the interior of swimming pools and to resist swimming pool chemicals.**

**"Swimming pool repair and maintenance coating" means a rubber-based coating formulated and recommended to be used over existing rubber-based coatings for the repair and maintenance of swimming pools.**

**"Temperature-indicator safety coating" means a coating formulated and recommended as a color-changing indicator coating for the purpose of monitoring the temperature and safety of a substrate, underlying piping, or underlying equipment, and for application to substrates exposed continuously or intermittently to temperatures above 204 degrees Centigrade (400 degrees Fahrenheit).**

**"Thermoplastic rubber coating and mastic"means a coating or mastic formulated and recommended for application to roofing or other structural surfaces, and that incorporates no less than 40 percent by weight of thermoplastic rubbers in the total resin solids and may also contain other ingredients including, but not limited to, fillers, pigments, and modifying resins.**

"Tile-like glaze coating" means **[**any**]** **a** coating **[**which**]** **that** is formulated to provide a tough, extra durable coating system, applied as a continuous (seamless) high-build film, and **[**which**]** **that** cures to a hard glaze finish.

**"Tint base" means an architectural coating to which colorant is added after packaging in sale units to produce a desired color.**

"Toxic substance" or "TXS" means a substance listed in Table 1 of N.J.A.C. 7:27-17**[**; that is, Benzene (Benzol), Carbon tetrachloride (Tetrachloromethane), Chloroform (Trichloromethane), Dioxane (1,4-Diethylene dioxide), Ethylene dibromide (1,2-Dibromoethane), Ethylene dichloride (1,2-Dichloroethane), 1,1,2,2-Tetrachloroethane (sym Tetrachloroethane), Tetrachloroethylene (Perchloroethylene), 1,1,2-Trichloroethane (Vinyl trichloride), Trichloroethylene (Trichloroethane), Methylene chloride (Dichloromethane), and 1,1,1-Trichloroethane (Methyl Chloroform)**]**.

"Traffic **marking** coating" means **[**any**]** **a** coating formulated **and recommended for marking and striping** **[**to be applied to public**]** streets, highways, or other surfaces, including, but not limited to, curbs, berms, driveways, **sidewalks, airport runways** and parking lots.

**"Undercoater" means a coating formulated and recommended to provide a smooth surface for subsequent coatings.**

"Varnish" means **[**any clear or pigmented coating formulated with various resins to dry by chemical reaction on exposure to air and intended to provide a durable transparent or translucent solid protective film.**] a clear or semi-transparent wood coating, excluding lacquers and shellacs, formulated to dry, by chemical reaction, on exposure to air. Varnishes may contain small amounts of pigment to color a surface, or to control the final sheen or gloss of the finish.**

. . .

**"VOC content" means the weight of VOC per volume of coating, calculated according to the procedures specified in N.J.A.C. 7:27-23.4.**

"Waterproof mastic coating" means **[**any**] a** weatherproof or waterproof coating formulated to cover holes and minor cracks and to conceal surface irregularities **[**and which**]** **that** is applied in thicknesses of at least 15 mils.

**"Waterproofing concrete/masonry sealer" means a clear or pigmented film-forming coating that is formulated and recommended for sealing concrete and masonry to provide resistance against water, alkalis, acids, ultraviolet light, and staining.**

"Waterproofing sealer" means **[**any coating formulated for the sole purpose of protecting porous substrates by preventing the penetration of water.**] a coating formulated and recommended for application to a porous substrate for the primary purpose of preventing the penetration of water.**

"Wood preservative coating" means **[**any coating which is formulated for the purpose of protecting exposed wood from decay or insect attack by the addition of a wood preservative product registered by the EPA.**] a coating formulated and recommended to protect exposed wood from decay or insect attack, that is registered under the Federal Insecticide, Fungicide, and Rodenticide Act, 7 U.S.C. § § 136 et seq.**

**7:27-23.3 [Architectural coatings] Standards**

**[**(a) [No person shall sell, offer for sale, hold for sale, provide, apply, or manufacture for sale within New Jersey any architectural coating manufactured after January 1, 1990, for Group I coatings and after February 28, 1990, for Group II coatings which contains more than the applicable VOC content limit per volume of coating, excluding water and any colorant added to tint bases, as allowed in Table 1 in (f) below.

(b) Effective February 28, 1993, no person shall sell, offer for sale, provide or hold for sale within New Jersey any architectural coating which contains more than the applicable VOC content limit per volume of coating, excluding water and any colorant added to tint bases, as allowed in Table 1 in (f) below.

(c) For a specific architectural coating to which more than one VOC content limit in Table 1 is applicable, or for any architectural coating which has anywhere on the coating container, on any sticker or label affixed thereto, or in any sales or advertising literature, any indication that more than one VOC content limit in Table 1 is applicable, the most stringent limit is applicable.

(d) The provisions of (a), (b) and (c) above shall not apply to architectural coatings sold in:

1. New Jersey for shipment and use outside of the State. Documentation indicating the final destination of coating shipments shall be made available to representatives of the Department upon request.

2. Containers with a capacity of less than one quart (0.95 liter).

(e) Compliance with this section shall be determined using the following test methods: ASTM D-3960; ASTM D-1475-60; ASTM D-3792-79; ASTM D-2698-73; ASTM D-2369-81; ASTM D-4017-81; ASTM D-95-83; any other method approved by the Department.**]**

**(a) Except as provided in N.J.A.C. 7:27-23.1(d) and (e) and (b), (c) and (h) below, no person shall manufacture, blend, repackage, supply or distribute for sale within the State of New Jersey; sell or offer for sale within the State of New Jersey; or apply for compensation within the State of New Jersey, any architectural coating**

**manufactured after the operative date in (i) Table 1 below, and containing a VOC content in excess of the corresponding limit specified in (i) Table 1, below.**

**(b) If anywhere on the container of an architectural coating, or on any label or sticker affixed to the container, or in any sales, advertising, or technical literature supplied by a manufacturer or anyone acting on their behalf, any representation is made that indicates that the coating meets the definition of or is recommended for use for more than one of the coating categories listed in (i) Table 1 below, then the most restrictive applicable VOC content limit shall apply. This provision does not apply to the following coating categories:**

**1. Antenna coating;**

**2. Antifouling coating;**

**3. Bituminous roof primer;**

**4. Calcimine recoater;**

**5. Concrete surface retarder;**

**6. Conversion varnish;**

**7. Fire-retardant coating;**

**8. Flow coating;**

**9. High-temperature coating;**

**10. Impacted Immersion coating;**

**11. Industrial maintenance coating;**

**12. Lacquer coating (including lacquer sanding sealer);**

**13. Low-solids coating;**

**14. Metallic pigmented coating;**

**15. Nuclear coating;**

**16. Pretreatment wash primer;**

**17. Shellac;**

**18. Specialty primer, sealer, and undercoater;**

**19. Temperature-indicator safety coating;**

**20. Thermoplastic rubber coating and mastic ; and**

**21. Wood preservative coating.**

**(c) With the exception of any coating that does not display on its label the date of manufacture or date code as required by N.J.A.C. 7:27-23.5(a), any coating manufactured prior to the operative date of the VOC limit specified for that coating in (i) Table 1 below, that complied with the VOC content limits in effect at the time of its manufacture, may be:**

**1. Sold, supplied, or offered for sale before or after that specified operative date; or**

**2. Applied at any time before or after that specified operative date.**

**(d) All containers used in the direct application of an architectural coating by pouring, siphoning, brushing, rolling, padding, ragging, or other means, shall be closed when not in use. These containers shall include, but are not limited to, drums, buckets,**

**cans, pails or trays. Containers of VOC-containing materials used for thinning and cleanup shall also be closed when not in use.**

**(e) No person, who applies an architectural coating for compensation, shall apply an architectural coating that has been thinned to the extent that it exceeds the applicable VOC limit specified in (i) Table 1 below.**

**(f) No person, who applies an architectural coating for compensation, shall apply a rust preventive coating for industrial use, unless such rust preventive coating complies with the industrial maintenance coating VOC limit specified in (i) Table 1, below, regardless of the date of manufacture.**

**(g) For any coating that cannot be classified under any of the specialty coating categories listed in (i) Table 1 below, the VOC content limit shall be determined by classifying the coating as a flat coating or a non-flat coating, based on its gloss, as defined in N.J.A.C. 7:27-23.2. The corresponding VOC content limit shall then apply.**

**(h) Not withstanding the provisions of (a) above, a person may add up to 10 percent by volume of VOC to a lacquer and then apply that lacquer, to avoid blushing of the finish, provided that:**

**1. The relative humidity at the time of application is greater than 70 percent;**

**2. The temperature at the time of application is below 65 degrees Fahrenheit;**

**3. The coating contains acetone; and**

**4. The coating contains no more than 550 grams of VOC per liter of coating, less water and exempt compounds, prior to the addition of VOC.**

**[**(f)**]** **(i)** Table 1 contains the VOC content limits for architectural coatings:

**Table 1**
**VOC Content Limits for Architectural Coatings**

| **[**Type of Architectural**]** **Coating Category** | **[**Maximum Allowable**]** VOC Content[1] **[**Per Volume of Coating Excluding Water**]** | | |
|---|---|---|---|
| | **State Limit Operative Date 2/28/90-12/31/04** [2] | | **State Limit Operative Date 1/1/05** |
| | Pounds **VOC** per gallon [3] | [Kilograms ]**Grams VOC** per liter | **Grams VOC per liter** |
| **[**Group I | | | |
| Bituminous pavement sealer | 0.8 | 0.1 | |
| Bond breaker | 5 | 0.6 | |
| Concrete curing compound | 2.9 | 0.35 | |
| Dry fog coating | 3.3 | 0.4 | |
| Industrial maintenance primer or topcoat | 3.8 | 0.45 | |
| Mastic texture coating | 1.7 | 0.2 | |
| Metallic pigmented coating | 4.2 | 0.5 | |
| Non-flat architectural coating | 3.2 | 0.38 | |
| Primer, sealer, and undercoater | 2.9 | 0.35 | |
| Roof coating | 2.5 | 0.3 | |
| Swimming pool coating | 5 | 0.6 | |
| Traffic coating | 2.1 | 0.25 | |
| Waterproof mastic coating | 2.5 | 0.3 | |
| Wood preservative coating | 4.6 | 0.55 | |
| Group II | | | |
| Fire retardant coating | | | |
| opaque | 4.2 | 0.5 | |
| all others | 7.1 | 0.85 | |
| Flat architectural coating | 2.1 | 0.25 | |
| High heat resistant coating | 5.4 | 0.65 | |
| Lacquer | 5.7 | 0.68 | |
| Multicolored coating | 5 | 0.6 | |
| Quick-dry primer, sealer, undercoater | 4.2 | 0.5 | |
| Shellac | | | |
| clear | 6.1 | 0.73 | |
| pigmented | 4.6 | 0.55 | |
| Sign paint | 3.8 | 0.45 | |
| Stain | | | |

**Table 1**
**VOC Content Limits for Architectural Coatings**

| [Type of Architectural] **Coating Category** | [Maximum Allowable] VOC Content[1] [Per Volume of Coating Excluding Water] | | |
|---|---|---|---|
| | **State Limit Operative Date 2/28/90-12/31/04** [2] | | **State Limit Operative Date 1/1/05** |
| | Pounds **VOC** per gallon [3] | [Kilograms ]**Grams VOC** per liter | **Grams VOC per liter** |
| semitransparent | 4.6 | 0.55 | |
| opaque | 2.9 | 0.35 | |
| Tile-like glaze coating | 4.6 | 0.55 | |
| Varnish | 3.8 | 0.45 | |
| Waterproofing sealer | 5 | 0.6 | |
| All other architectural coatings | 2.1 | 0.25] | |
| **Antenna coating** | | | **530** |
| **Anti-fouling coating** | | | **400** |
| **Bituminous pavement sealer** | **0.8** | **100** | **100** |
| **Bituminous roof coating** | | | **300** |
| **Bituminous roof primer** | | | **350** |
| **Bond breaker** | **5.0** | **600** | **350** |
| **Calcimine recoater** | | | **475** |
| **Concrete curing compounds** | **2.9** | **350** | **350** |
| **Concrete surface retarder** | | | **780** |
| **Conversion varnish** | | | **725** |
| **Dry fog coating** | **3.3** | **400** | **400** |
| **Faux finishing coating** | | | **350** |
| **Fire-resistive coating** | | | **350** |
| **Fire-retardant coating** | | | |
| **clear** | | | **650** |
| **opaque** | **4.2** | **500** | **350** |
| **all others** | **7.1** | **850** | **NA1** |
| **Flat coating** | **2.1** | **250** | **100** |
| **Floor coating** | | | **250** |
| **Flow coating** | | | **420** |
| **Form release compound** | | | **250** |
| **High temperature coating** | **5.4** | **650** | **420** |
| **Impacted immersion coating** | | | **780** |
| **Industrial maintenance coating** | **3.8** | **450** | **340** |
| **Lacquer, clear brushing** | **5.7** | **680** | **680** |
| **Lacquer (including lacquer sanding sealer)** | | | **550** |
| **Low solids coating** | | | **120** |
| **Magnesite cement coating** | | | **450** |
| **Mastic texture coatings** | **1.7** | **200** | **300** |
| **Metallic pigmented coatings** | **4.2** | **500** | **500** |
| **Multi-colored coating** | **5.0** | **600** | **250** |
| **Nonflat coating:** | **3.2** | **380** | **150** |
| **Nonflat high gloss coating** | | | **250** |
| **Nuclear coating** | | | **450** |

**Table 1**
**VOC Content Limits for Architectural Coatings**

| [Type of Architectural] **Coating Category** | [Maximum Allowable] VOC Content[1] [Per Volume of Coating Excluding Water] | | |
|---|---|---|---|
| | **State Limit Operative Date 2/28/90-12/31/04** [2] | | **State Limit Operative Date 1/1/05** |
| | Pounds **VOC** per gallon [3] | [Kilograms ]**Grams VOC** per liter | **Grams VOC per liter** |
| **Pretreatment wash primer** | | | **420** |
| **Primer, Sealer, and Undercoater** | **2.9** | **350** | **200** |
| **Quick-dry enamel** | | | **250** |
| **Quick-dry Primer, Sealer, Undercoater** | **4.2** | **500** | **200** |
| **Recycled Coating** | | | **250** |
| **Roof coating** | **2.5** | **300** | **250** |
| **Rust preventative coating** | | | **400** |
| **Sanding sealer (other than lacquer sanding sealer)** | | | **350** |
| **Shellac** | | | |
| **clear** | **6.1** | **730** | **730** |
| **[pigmented] opaque** | **4.6** | **550** | **550** |
| **Sign paint (Graphic arts coating)** | **3.8** | **450** | **500** |
| **Specialty Primer, Sealer, and Undercoater** | | | **350** |
| **Stain** | | | **250** |
| **semitransparent** | **4.6** | **550** | **NA2** |
| **opaque** | **2.9** | **350** | **NA2** |
| **Swimming pool coating** | **5.0** | **600** | **340** |
| **Swimming pool repair and maintenance coating** | | | **340** |
| **Temperature-indicator safety coating** | | | **550** |
| **Thermoplastic rubber coating and mastic** | | | **550** |
| **Tile-like glaze coating** | **4.6** | **550** | **550** |
| **Traffic marking coating** | **2.1** | **250** | **150** |
| **Varnish** | **3.8** | **450** | **350** |
| **Waterproofing sealer** | **5.0** | **600** | **250** |
| **Waterproofing concrete/masonry sealer** | | | **400** |
| **Waterproof mastic coating** | **2.5** | **300** | **NA3** |
| **Wood preservative coating** | **4.6** | **550** | **350** |
| **All other architectural coatings** | **2.1** | **250** | **NA4** |
| | | | |

**Notes:**

**1. Limits are expressed in grams of VOC per liter or pounds of VOC per gallon of coating thinned to the manufacturer's maximum recommendation, excluding the volume of water, exempt compounds, or colorant added to tint bases. "Manufacturers maximum recommendation" means the maximum recommendation for thinning that is indicated on the label or lid of the coating container.**

**2. On or after January 1, 2005, the state limits operative February 28, 1990 will no longer be applicable.**

| **Table 1**<br>**VOC Content Limits for Architectural Coatings** | | | |
|---|---|---|---|
| **[**Type of Architectural**] Coating Category** | **[**Maximum Allowable**]** VOC Content[1] **[**Per Volume of Coating Excluding Water**]** | | |
| | **State Limit Operative Date 2/28/90-12/31/04** [2] | | **State Limit Operative Date 1/1/05** |
| | Pounds **VOC** per gallon [3] | [Kilograms ]**Grams VOC** per liter | **Grams VOC per liter** |
| **3. Conversion factor: one pound VOC per gallon (U.S.) = 119.95 grams per liter.** | | | |
| **NA1. The fire retardant "all others" category shall be "not applicable" and is being replaced with the "clear" category.** | | | |
| **NA2. The "semi-transparent" and "opaque" stain categories shall be "not applicable" and are being replaced with one category "Stains."** | | | |
| **NA3. The "Waterproof mastic coating" category shall be "not applicable" and is being replaced with the "Mastic texture coating" category.** | | | |
| **NA4. The "All other architectural coating" category shall be "not applicable" and is being replaced with N.J.A.C. 7:27- 23.3(g).** | | | |

7:27-23.4 **[**(Reserved)**]** **Compliance provisions and test methods**

**(a) For the purpose of determining compliance with the VOC content limits contained in N.J.A.C. 7:27-23.3(i) Table 1, the VOC content of a coating shall be determined by using the following procedures. The VOC content of a tint base shall be determined prior to the addition of any colorant which is added after packaging in sale units by a person other than the manufacturer.**

**1. For all coatings, with the exception of low solids coatings, the VOC content in grams of VOC per liter of coating, thinned to the manufacturer's maximum recommendation, excluding the volume of water and exempt compounds, shall be determined as follows:**

**VOC Content = (Ws - Ww - Wec)/(Vm - Vw - Vec)**

**Where:**

**VOC content = grams of VOC per liter of coating**

**Ws = weight of volatiles, in grams**

**Ww = weight of water, in grams**

**Wec = weight of exempt compounds, in grams**

**Vm = volume of coating, in liters**

**Vw = volume of water, in liters**

**Vec = volume of exempt compounds, in liters**

**2. For low solids (LS) coatings, the VOC content in units of grams of VOC per liter of coating, thinned to the manufacturer's maximum recommendation, including the volume of water and exempt compounds, shall be determined as follows:**

**VOC Content (LS) = (Ws - Ww - Wec)/Vm**

**Where:**

**VOC Content (LS) = grams of VOC per liter of low solids coating**

**Ws = weight of volatile, in grams**

**Ww = weight of water, in grams**

**Wec = weight of exempt compounds, in grams**

**Vm = volume of coating, in liters**

**(b) Except as provided at (c) and (d) below, the test methods at (b)1 through 5 below and the information specified at (b)6 below, shall, as applicable, be used to determine the physical properties of a coating in order to perform the calculations in (a) above:**

**1. The VOC content shall be determined using either:**

**i. The EPA Method 24, as set forth in Appendix A of 40 Code of Federal Regulations (CFR) Part 60, "Determination of Volatile Matter Content, Water Content, Density, Volume Solids, and Weight Solids of Surface Coatings," including any subsequent revisions thereto, which are incorporated herein by reference; or**

**ii. The SCAQMD Method 304-91 (Revised February 1996), "Determination of Volatile Organic Compounds (VOC) in Various Materials," SCAQMD "Laboratory Methods of Analysis for Enforcement Samples," including any subsequent revisions thereto, which are incorporated herein by reference;**

**2. The exempt compounds content shall be determined using SCAQMD Method 303-91 (Revised August 1996), "Determination of Exempt Compounds," SCAQMD "Laboratory Methods of Analysis for Enforcement**

**Samples," including any subsequent revisions thereto, which are incorporated herein by reference (see N.J.A.C. 7:27-23.2, the definition for volatile organic compound for a list of the exempt (excluded) compounds to be used in the test method);**

**3. The exempt compound content of compounds that are cyclic, branched, or linear completely methylated siloxanes shall be determined using BAAQMD Method 43, "Determination of Volatile Methylsiloxanes in Solvent-Based Coatings, Inks, and Related Materials," BAAQMD Manual of Procedures, Volume III, adopted November 6, 1996, including any subsequent revisions thereto, which are incorporated herein by reference (see N.J.A.C. 7:27-23.2, the definition for volatile organic compound for a list of the exempt (excluded) compounds to be used in the test method);**

**4. The exempt compound content of parachlorobenzotrifluoride shall be determined using BAAQMD Method 41, "Determination of Volatile Organic Compounds in Solvent-Based Coatings and Related Materials Containing Parachlorobenzotrifluoride," BAAQMD Manual of Procedures, Volume III, adopted December 20, 1995, including any subsequent revisions thereto, which are incorporated herein by reference (see N.J.A.C. 7:27-23.2, the definition for volatile organic compound for a list of the exempt compounds to be used in the test method);**

**5. Analysis of methacrylate multi-component coatings used as traffic marking coatings shall be conducted according to a modification of EPA Method 24, 40 CFR 59, subpart D, Appendix A "Determination of Volatile Matter Content of Methacrylate Multi component Coatings Used as Traffic Marking Coatings," (September 11, 1998), including any subsequent revisions thereto, which are incorporated herein by reference. This method shall not be used for methacrylate multi component coatings used for purposes other than as traffic marking coatings or for other classes of multi component coatings; or**

**6. In addition to or instead of any of the test methods at (b)1 through 5 above, formulation data or any other reasonable means for predicting that the coating has been formulated as intended (for example, quality assurance checks, recordkeeping).**

**(c) In addition to the test methods provided in (b) above, other test methods which have been demonstrated to the Department's satisfaction to provide results that are acceptable for purposes of determining compliance may be used upon receipt of written approval from the Department, after the Department has obtained approval from the EPA.**

**(d) If there are any inconsistencies between the results of an EPA Method 24 test and any other means for determining VOC content, the EPA Method 24 results will govern, except when an alternative method is approved as specified in (c) above.**

**(e) The following test methods shall be used to test a coating, subject to the provisions of this subchapter, to determine its applicable coating category pursuant to the definitions in N.J.A.C. 7:27-23.2:**

**1. The flame spread index of a fire-retardant coating shall be determined using the ASTM Designation E 84-01, "Standard Test Method for Surface Burning Characteristics of Building Materials," including any subsequent revisions thereto, which are incorporated herein by reference (see N.J.A.C. 7:27-23.2, the definition of fire-retardant coating);**

**2. The fire-resistance rating of a fire-resistive coating shall be determined by ASTM designation E 119-00a, "Standard Test Methods for Fire Tests of Building Construction Materials," including any subsequent revisions thereto, which are incorporated herein by reference (see N.J.A.C. 7:27-23.2, the definition of fire-resistive coating);**

**3. The gloss of a coating shall be determined using ASTM Designation D 523-89 (1999), "Standard Test Method for Specular Gloss," including any subsequent revisions thereto, which are incorporated herein by reference (see N.J.A.C. 7:27-23.2, the definitions of flat coating, non-flat coating, non-flat - high-gloss coating, and quick dry enamel);**

**4. The metallic content of a coating shall be determined using SCAQMD Method 318-95, "Determination of Weight Percent Elemental Metal in**

**Coatings by X-Ray Diffraction," SCAQMD "Laboratory Methods of Analysis for Enforcement Samples," including any subsequent revisions thereto, which are incorporated herein by reference (see N.J.A.C. 7:27-23.2, the definition of metallic pigmented coating);**

**5. The acid content of a coating shall be determined using ASTM Designation D 1613-02, "Standard Test Method for Acidity in Volatile Solvents and Chemical Intermediates Used in Paint, Varnish, Lacquer and Related Products," including any subsequent revisions thereto, which are incorporated herein by reference (see N.J.A.C. 7:27-23.2, the definition of pre-treatment wash primer);**

**6. The set-to-touch, dry-hard, dry-to-touch and dry-to-recoat times of a coating shall be determined using ASTM Designation D 1640-95 (1999), "Standard Methods for Drying, Curing, or Film Formation of Organic Coatings at Room Temperature," including any subsequent revisions thereto, which are incorporated herein by reference. The tack free time of a quick-dry enamel coating shall be determined using the Mechanical Test Method of ASTM Designation D 1640-95 (1999) (see N.J.A.C. 7:27-23.2, the definitions of quick dry enamel and quick-dry primer, sealer, and undercoater).**

**7. The chalkiness of a surface shall be determined using ASTM Designation D 4214-98, "Standard Test Methods for Evaluating the Degree of Chalking of Exterior Paint Films," including any subsequent revisions thereto, which are**

**incorporated herein by reference (see N.J.A.C. 7:27-23.2, the definition of specialty primer, sealer, and undercoater);**

**8. The resistance to long-term cumulative radiation exposure of a coating shall be determined using ASTM Designation D-4082-02, "Standard Test Method for Effects of Gamma Radiation on Coatings for Use in Light-Water Nuclear Power Plants," including any subsequent revisions thereto, which are incorporated herein by reference (see N.J.A.C. 7:27-23.2, the definition of nuclear coating); and**

**9. The resistance to various chemicals to which the coatings are likely to be exposed in nuclear power plants shall be determined using ASTM Method D 3912–95 (2001), "Standard Test Method for Chemical Resistance of Coatings Used in Light-Water Nu-clear Power Plants ," including any subsequent revisions thereto, which are incorporated herein by reference (see N.J.A.C. 7:27-23.2, the definition of nuclear coating).**

**(f) Upon the request of the Department, any manufacturer of a coating that is subject to the requirements of this subchapter shall test any of its coatings that are sold, offered for sale, held for sale, distributed, supplied, or manufactured for sale in New Jersey to determine the VOC content of the coating. Such testing shall be performed utilizing the methods in N.J.A.C. 7:27-23.4.**

**(g) Upon the request of the Department, any manufacturer of a coating that is subject to the requirements of this subchapter shall provide to the Department product samples that are duplicates of samples tested in accordance with (f) above.**

**(h) Test methods can be obtained as follows:**

**1. ASTM test methods can be purchased from American Society for Testing and Materials, 100 Barr Harbor Drive, West Conshohocken, Pennsylvania 19428-2959. Telephone (610) 832-9585. Fax (610) 832-9555 or can be purchased from the ASTM website at http:// www.ASTM.org.**

**2. SCAQMD test methods can be purchased from the South Coast Air Quality Management District, 21865 East Copley Drive, Diamond Bar, California 91765-0934. Telephone (909) 396-2162;**

**3. BAAQMD test methods described can be purchased from the Bay Area Air Quality Management District, 939 Ellis Street, San Francisco, California 94109. Telephone (415) 749-4900; and**

**4. EPA Test Method 24, which is located in 40 CFR, Chapter I, Part 60, Appendix A-7, can be downloaded from the following website: http://www.access.gpo.gov/nara/cfr/cfrhtml_00/Title_40/40cfr60a_00.html.**

7:27-23.5 Labeling requirements

**[**(a) For architectural coatings subject to the requirements of N.J.A.C. 7:27-23.3, the following shall apply:

1. The label on any side of the container except the bottom shall carry a statement of the manufacturer's recommendation regarding thinning of the coating. The statement shall either specify that the coating is to be applied under normal environmental conditions without thinning, or limit thinning required for normal environmental conditions such that after thinning the coating will not exceed its applicable standard as given in Table 1 at N.J.A.C. 7:27-23.3(f).

2. The label on any side of the container except the bottom shall include a statement which specifies the maximum pounds of VOC in a gallon of architectural coating as produced by that manufacturer, excluding water and any colorant added to tint bases and after any recommended thinning. For architectural coatings manufactured after August 9, 1991, this statement shall be prominent and in print no smaller than 0.08 inches (two millimeters or eight point) in size.

(b) For all consumer products subject to (a) above, the label shall display the date on which the contents were manufactured or a code indicating the date of manufacture. The manufacturer shall supply an explanation of any code used to the Assistant Director, Enforcement Element, Division of Environmental Quality, PO Box 027, Trenton, New Jersey, 08625-0027, by February 28, 1990, and thereafter, 30 days prior to the use of any new or altered code.

(c) For labeling purposes only, terms other than VOC may be used provided that the volatile organic content level cited on the label is an accurate reflection of the VOC content of the coating, as defined in this subchapter.**]**

**(a) The manufacturer of an architectural coating subject to this subchapter shall display on the coating container's label, bottom or lid, the date the coating was manufactured, or a date code representing the date of manufacture. If the manufacturer uses a date code for any coating, the manufacturer shall file an explanation of each code in accordance with N.J.A.C. 7:27-23.6(c).**

**(b) The manufacturer of an architectural coating subject to this subchapter shall display the following information on the coating container label or lid:**

**1. A statement of the manufacturer's recommendation regarding thinning of the coating, except that:**

**i. This requirement does not apply to the thinning of architectural coatings with water; and**

**ii. If thinning of the coating prior to use is not necessary, the recommendation must specify that the coating is to be applied without thinning;**

**2. The maximum or the actual VOC content of the coating in accordance with N.J.A.C. 7:27-23.4, which includes the manufacturer's maximum recommendation for thinning, shall be provided as follows:**

**i. For a coating manufactured prior to January 1, 2005, the VOC content shall be displayed in grams of VOC per liter of coating or pounds of VOC per gallon of coating; and**

**ii. For a coating manufactured on or after January 1, 2005, the VOC content shall be displayed in grams of VOC per liter of coating;**

**3. For an industrial maintenance coating, one or more of the following statements:**

**i. "For industrial use only";**

**ii. "For professional use only"; and/or**

**iii. "Not for residential use" or "Not intended for residential use";**

**4. For clear brushing lacquers manufactured on and after January 1, 2005, the statements "For brush application only" and "This product must not be thinned or sprayed" shall be prominently displayed;**

**5. For rust preventative coatings manufactured on and after January 1, 2005, the statement "For metal substrates only" shall be prominently displayed;**

**6. For a specialty primer, sealer, or undercoater manufactured on and after January 1, 2005, one or more of the following statements shall be prominently displayed:**

**i. "For blocking stains";**

**ii. "For fire-damaged substrates";**

**iii. "For smoke-damaged substrates";**

**iv. "For water-damaged substrates"; and/or**

**v. "For excessively chalky substrates";**

**7. For a quick dry enamel manufactured on or after January 1, 2005, the following:**

**i. The statement "Quick dry" shall be prominently displayed; and**

**ii. A statement of the time it takes for the enamel to dry hard; and**

**8. For a non-flat high gloss coating manufactured on or after January 1, 2005, the statement "High gloss" shall be prominently displayed.**

**(c) For a coating manufactured on or after January 1, 2005, the manufacturer of an architectural coating, that is "formulated and recommended" for a specific use as specified in the definition of the particular architectural coating in N.J.A.C.7:27-23.2, shall display such recommended use on the coating container's label.**

(d) **[**The**]** **Prior to January 1, 2005 only, the** provisions of this subchapter shall not apply to any architectural coating registered under the Federal Insecticide, Fungicide, and Rodenticide Act, 7 U.S.C. **§ §** 136 et seq., provided **[**the**]** **that:**

**1.** **The** manufacturer has filed an application for any registration amendment necessary for compliance with this subchapter with EPA**[**.**]****;**

**2.** A copy of this application [shall be**]** **was** submitted by the manufacturer to the Assistant Director, Enforcement Element, Division of Environmental Quality, PO Box 027, Trenton, New Jersey 08625-0027 by August 31, 1990. **[**Those products for which an application for an amended registration has been submitted in a timely manner are exempt until such time as EPA has rendered a decision upon the amendment request.**]****;**

**3.** Within 30 calendar days of receipt of notice of EPA action on an amendment request, a copy of that notice **[**will be**]** **was** supplied to the Assistant Director, Enforcement Element, at the address specified above**[**.**]**; **and**

**4.** Within 180 calendar days of the receipt of an approval of any necessary change, the manufacturer **[**shall begin**]** **began** use of the complying product or label.

**7:27-23.6 Administrative and reporting requirements**

(a) Each manufacturer and distributor of an architectural coating subject to N.J.A.C. 7:27-23.3 shall include on the invoice, bill of lading, or other shipping document provided to the distributor or retailer receiving the product in New Jersey a statement indicating that the architectural coatings included on that shipping document and subject to N.J.A.C. 7:27-23.3, shipped by that manufacturer or distributor for sale in New Jersey, are in compliance with this subchapter. These documents shall be maintained by the manufacturer **[**and the person receiving them**]**, **distributor and/or retailer** for no less than five years and shall be made available **by the document recipient** to the Department **or its representatives** upon request.

**[**(b) Each manufacturer of a consumer product which contains greater than five percent by weight VOC having a vapor pressure or sum of partial pressures of organic substances of 0.02 pounds per square inch (1 millimeter of mercury), absolute or greater measured at standard conditions and is sold for use in New Jersey shall maintain calendar year records indicating the types of products containing greater than five percent by weight

VOC having a vapor pressure or sum of partial pressures of organic substances of 0.02 pounds per square inch (1 millimeter of mercury), absolute or greater measured at standard conditions produced by that manufacturer for sale in New Jersey, the number of units produced, the VOC content by weight per unit and percent weight, and the approximate number of units sold in New Jersey. Within a given product category variations of products that have VOC contents within a range of five percent by weight may be combined for the purpose of record keeping, provided the maximum weight percent and maximum weight per unit within the product category is recorded. Upon the request of the Department, the manufacturer shall submit, within 90 days of the request, a report on forms obtained from the Department about products sold in New Jersey containing greater than five percent by weight VOC. Records sufficient to provide the above information shall be maintained by each manufacturer for five years after each calendar year for which the data is collected.**]**

**(b)** **For a coating that is sold or manufactured in New Jersey for use outside of New Jersey, or for shipment to other manufacturers for reformulation or repackaging, documentation indicating the final destination of the coating shall be made available to the Department or its representatives upon request. These documents shall be maintained by the manufacturer, distributor and/or retailer for no less than five years and shall be made available by the document recipient to the Department or its representatives upon request.**

**(c) A manufacturer who uses a date code on the coating container, in lieu of using the date of manufacture on the container, shall submit a registration with the Department as follows:**

**1. The information shall be submitted electronically, unless:**

**i. Electronic submission would impose hardship on the manufacturer; and**

**ii. The Department approves a request from the manufacturer to submit the information on paper pursuant to (c)7 below;**

**2. The registration shall be submitted to the Department in accordance with guidance on the Department's website at http://www.state.nj.us/dep/baqp.**

**3. The registration shall be submitted in accordance with the following schedule:**

**i. For a coating sold in New Jersey prior to January 1, 2005, the registration shall be submitted on or after (the effective date of this rule) and prior to January 1, 2005; and**

**ii. For a coating sold in New Jersey on or after January 1, 2005, that was not sold in New Jersey prior to January 1, 2005, the registration shall be submitted prior to selling the coating in New Jersey;**

**4. A manufacturer who, after the submission of its registration, begins to manufacture a coating for sale in New Jersey which changes the original registration information, or if any of the information provided in the registration changes, shall submit a revised registration including the new information within 90 days of the change.**

**5. The information shall include the following:**

**i. The name of the manufacturer;**

**ii. The full mailing address of the manufacturer;**

**iii. The name, telephone number and email address of a contact person; and**

**iv. The date code explanation for each coating.**

**6. Notwithstanding (i) below, any information submitted as part of the registration pursuant to this subsection shall not be claimed to be**

**confidential, including under the procedures set forth at N.J.A.C. 7:27-1.6 through 1.29; and**

**7. A manufacturer who claims that electronic submission of its registration will impose a hardship shall submit a request to the Department to submit its registration on paper, rather than electronically, as follows:**

**i. The request shall include an explanation of the hardship that electronic submission would impose on the manufacturer;**

**ii. The Department shall not approve a manufacturer's request to submit its registration on paper unless the Department is satisfied that electronic submission would impose hardship on the manufacturer.**

**iii. The manufacturer shall submit the request to the Department at the following address:**

**Attn: Architectural Coating Registration**
**Bureau of Air Quality Planning**
**Department of Environmental Protection**
**P.O. Box 418**
**401 East State Street**
**Trenton, New Jersey 08625-0418**

**(d) Upon request, a manufacturer of an architectural coating shall submit to the Department a report concerning the coatings it sold in New Jersey which are subject to this subchapter. Such report shall be submitted within 90 days of the request. The request may include any or all of the following:**

**1. The name of the manufacturer;**

**2. The full mailing address of the manufacturer;**

**3. The name and telephone number of a contact person;**

**4. The name of each coating as described on its label;**

**5.. The category of each coating sold;**

**6. Whether the coating is marketed for interior or exterior purposes;**

**7. The color category of each coating (such as white, pastel, medium or deep base for flat and non-flat coatings, and clear, semi-transparent or opaque for stains and varnishes);**

**8. The number of gallons sold in containers greater than 1 liter;**

**9. The number of gallons sold in containers less than or equal to 1 liter;**

**10. A list of VOC's used in each coating;**

**11. A list of exempt compounds used in the coating; and**

**12. The following information (as defined in the CARB 1998 Architectural Coatings Survey Results Final Report, September 1999, or subsequent CARB surveys, which is incorporated by reference herein and which can be found by accessing the CARB website):**

**i. The actual and regulatory VOC content (as defined in the CARB survey) in grams per liter. If products less than or equal to one liter have a different VOC content, list them separately;**

**ii. The actual and regulatory VOC content in grams per liter after recommended thinning. If products sold in containers less than or equal to one liter have a different VOC content list them separately; and**

**iii. The percent by volume solids.**

**(e) Records sufficient to provide the information listed in (d) above shall be maintained by each manufacturer for a minimum of five years.**

**(f) Each manufacturer of a coating subject to a VOC content limit in this subchapter shall keep records demonstrating compliance with the applicable VOC content limit. Such records shall consist of the results of testing and/or calculations in accordance with N.J.A.C. 7:27-23.4. These records are required to be kept by the manufacturer for a period of at least five years. Such records shall be made available by the manufacturer to the Department or its representatives within 30 days of the Department's request.**

**(g) If the Department requests any manufacturer of an architectural coating to test any of its coatings that are sold, offered for sale, held for sale, distributed, supplied, or manufactured for sale in New Jersey to determine the VOC content of the coating,**

**the manufacturer shall submit the test report to the Department within 30 days of the receipt of the request from the Department.**

**(h) A person who holds for sale, offers for sale, or sells any coating subject to this subchapter shall, upon request, identify to the Department or its representatives, the distributor or company from whom the coating was obtained.**

**(i) Except as provided at (c)6 above, any person who is required to submit information to the Department pursuant to this subchapter may assert a confidentiality claim for that information in accordance with N.J.A.C. 7:27-1.6. The Department will process and evaluate confidentiality claims and treat information claimed to be confidential in accordance with N.J.A.C. 7:27-1.6 through 1.29.**

7:27-23.7 Inspections

(a)-(b) (No change.)

(c) Owners or operators, and any employees or representatives thereof, of any distribution facility, retail outlet or **[**indirect consumer**]** **any person who applies coatings for compensation** shall assist and shall not hinder or delay the Department and its representatives in the performance of all aspects of any inspection. Such assistance shall include providing any equipment necessary for access to all stock to allow the obtaining of samples by the Department to determine the nature and quantity of architectural coating being provided, stored, transported, exchanged in trade, sold, or offered for sale **[**by the indirect consumer or at the retail or distribution outlet**]**. In cases in which

sampling equipment necessary to conduct sampling at the facility or sampling facilities to determine the nature and quantity of architectural coating at the facility are available on site, these equipment or facilities shall be made available for Department use.

**7:27-23.8 Penalties for failure to comply**

**(a) Any person subject to this subchapter shall be responsible for ensuring compliance with all requirements of this subchapter. Failure to comply with any provision of this subchapter may subject the person to civil penalties in accordance with N.J.A.C. 7:27A-3 and applicable criminal penalties, including, but not limited to, those set forth at N.J.S.A. 26:2C-19(f)1 and 2.**

**(b) If a product that is subject to this subchapter is determined to fail to comply with the applicable VOC content requirements at N.J.A.C. 7:27-23.3, the Department may issue an order including any or all of the following:**

**1. Requiring the product's manufacturer to:**

**i. Demonstrate to the satisfaction of the Department that the product in fact complies with the applicable VOC content requirements at N.J.A.C. 7:27-23.3;**

**ii. Demonstrate to the satisfaction of the Department that the test results or calculations for that specific unit are not representative of the entire batch, or entire product line of that unit; and/or**

**iii. Within 30 days of the submission of the test report to the Department, recall its non-complying product from all retail outlets in New Jersey;**

**2. Requiring any distributor or supplier of the product to assist in a recall by taking back any of the product it has supplied to a retail outlet; and/or**

**3. Prohibiting the sale of the product in New Jersey until the manufacturer makes a demonstration, satisfactory to the Department, that the product to be sold will meet the applicable VOC content requirements at N.J.A.C. 7:27-23.3.**

**CHAPTER 27A**

**AIR ADMINISTRATIVE PROCEDURES AND PENALTIES**

**SUBCHAPTER 3 CIVIL ADMINISTRATIVE PENALTIES AND REQUESTS FOR ADJUDICATORY HEARINGS**

**7:27A-3.10 Civil administrative penalties for violation of rules adopted pursuant to the Act**

(a) - (l) (No change.)

(m) The violations of N.J.A.C. 7:27 and the civil administrative penalty amounts for each violation are as set forth in the following Civil Administrative Penalty Schedule. The numbers of the following subsections correspond to the numbers of the corresponding subchapter in N.J.A.C. 7:27. The rule summaries for the requirements set forth in the Civil Administrative Penalty Schedule in this subsection are provided for informational purposes only and have no legal effect.

**CIVIL ADMINISTRATIVE PENALTY SCHEDULE**

1. - 22. (No change.)

23. The violations of N.J.A.C. 7:27-23, **Prevention of Air Pollution from** Architectural Coatings, and the civil administrative penalty amounts for each violation are as set forth in the following table:

| Citation | First Offense | Second Offense | Third Offense | Fourth and Each Subsequent Offense |
|---|---|---|---|---|
| N.J.A.C. 7:27-23.3(a) **Standards** | | | | |
| CLASS: **Manufacturer, Distributor, Seller, Applier for Compensation** | | | | |
| Per Gallon or any part thereof: | | | | |
| 1. Less than 25 percent over the allowable standard | $300 | $600 | $1,500 | $4,500 |
| 2. From 25 through 50 percent over the allowable standard | $600 | $1,200 | $3,000 | $9,000 |
| 3. Greater than 50 percent over the allowable standard | $1,000 | $2,000 | $5,000 | $15,000 |

| **[Citation** | **First Offense** | **Second Offense** | **Third Offense** | **Fourth and Each Subsequent Offense** |
|---|---|---|---|---|
| N.J.A.C. 7:27-23.4(a) | | | | |
| CLASS | | | | |
| Per Unit--Eight pounds or any part thereof: | | | | |
| 1. Less than 25 percent over the allowable standard | $300 | $600 | $1,500 | $4,500 |
| 2. From 25 through 50 percent over the allowable standard | $600 | $1,200 | $3,000 | $9,000 |
| 3. Greater than 50 percent over the allowable standard | $1,000 | $2,000 | $5,000 | $15,000**]** |

| Citation | Class | First Offense | Second Offense | Third Offense | Fourth and Each Subsequent Offense |
|---|---|---|---|---|---|
| **N.J.A.C. 7:27-23.3(d) Painting Practices** | **Applier for Compensation** | **$500** | **$1,000** | **$2,500** | **$7,500** |
| **N.J.A.C. 7:27-23.3(e) Thinning** | **Applier for Compensation** | **$500** | **$1,000** | **$2,500** | **$7,500** |
| **N.J.A.C. 7:27-23.3(f) Rust Preventative Coatings** | **Applier for Compensation** | **$500** | **$1,000** | **$2,500** | **$7,500** |
| **N.J.A.C. 7:27-23.4(f) Request For Analysis** | **Manufacturer** | **$2,000** | **$4,000** | **$10,000** | **$30,000** |
| **N.J.A.C. 7:27-23.4(g) Duplicate Samples** | **Manufacturer** | **$2,000** | **$4,000** | **$10,000** | **$30,000** |
| N.J.A.C. 7:27-23.5 **Labeling** | Manufacturer | $[10,000] **2,000** | $[25,000] **4,000** | $[50,000] **10,000** | $[50,000] **30,000** |
| N.J.A.C. 7:27-23.6(a) **Shipping Documentation, In State** | Manufacturer**, Distributor, Seller** | $[10,000] **4,000** | $[25,000] **8,000** | $[50,000] **20,000** | $50,000 |
| **[**N.J.A.C. 7:27-23.6(b)**]** | **[**Distributor**]** | **[**$4,000**]** | **[**$8,000**]** | **[**$20,000**]** | **[**$50,000**]** |

| Citation | Class | First Offense | Second Offense | Third Offense | Fourth and Each Subsequent Offense |
|---|---|---|---|---|---|
| N.J.A.C. 7:27-23.6(b) Shipping Documentation, Out of State | Manufacturer, Distributor, Seller | $4,000 | $8,000 | $20,000 | $50,000 |
| N.J.A.C. 7:27-23.6(c) Date Code Registration | Manufacturer | $500 | $1,000 | $2,500 | $7,500 |
| N.J.A.C. 7:27-23.6(d) Product Reporting | Manufacturer | $4,000 | $8,000 | $20,000 | $50,000 |
| N.J.A.C. 7:27-23.6(e) & (f) Records | Manufacturer | $4,000 | $8,000 | $20,000 | $50,000 |
| N.J.A.C. 7:27-23.6(g) Testing Reporting | Manufacturer | $4,000 | $8,000 | $20,000 | $50,000 |
| N.J.A.C. 7:27-23.6(h) Distributor Identification | Manufacturer, Distributor, Seller, Applier for Compensation | $8,000 | $16,000 | $40,000 | $50,000 |
| N.J.A.C. 7:27-23.7 Inspections | Manufacturer, Distributor, Seller, Applier for Compensation | $10,000 | $25,000 | $50,000 | $50,000 |
| N.J.A.C. 7:27-23.8(b) Recall | Manufacturer, Distributor, Seller | $10,000 | $25,000 | $50,000 | $50,000 |

24. - 31. (No change.)

(n) - (p) (No change.)