

**Comment and Response Document on
The Sherwin-Williams Company's Variance
Request for Interior Wiping Stains**

The Pennsylvania Department of Environmental Protection (Department) published notice of the public comment period and public hearings for the Application for a Proposed Revision to the State Implementation Plan (SIP) for Architectural and Industrial Maintenance (AIM) Coatings and The Sherwin-Williams Company Variance Request for Interior Wiping Stains in the *Pennsylvania Bulletin* on May 15, 2004 (34 *Pa. B.* 2643). The Department held two public hearings on the proposal at the following Regional Offices of the Department:

June 14, 2004 Southeast Regional Office
Schuylkill River Conference Room
2 East Main Street
Norristown, PA 19401

June 17, 2004 Southcentral Regional Office
Susquehanna River Conference Room
909 Elmerton Avenue
Harrisburg, PA 17110

The public comment period for the proposed revision to the State Implementation Plan and the Sherwin-Williams Company Variance Request for Interior Wiping Stains closed on July 15, 2004. There was no oral testimony offered during the public hearings. Written comments received during the public comment period are summarized in this comment and response document. The identity of each commentator is indicated by the assigned number(s) in parentheses after each comment.

This is a list of corporations, organizations and interested individuals from whom the Department received comments regarding the above referenced application for a variance and proposed revision to the SIP during the public comment period.

- 1. Ronald W. Stannard, P.E.
Chief, Stationary Source Planning Section
Division of Air Resources
Bureau of Air Quality Planning
New York State Department of Environmental Conservation
2nd Floor, 625 Broadway
Albany, New York 12233-3251**

- 2. Gene M. Pettingill
State of Delaware
Department of Natural Resources & Environmental Control
Division of Air & Waste Management
715 Grantham Lane
New Castle, DE 19720**

- 3. Judith Rand
Environmental Engineer
Air Quality Management
Bureau of Air Quality Planning
New Jersey Department of Environmental Protection
P.O. Box 418
Trenton, New Jersey 08625-0418**

Comment 1. The application for a variance submitted by Sherwin-Williams fails to demonstrate that it is technologically infeasible to comply with the requirements of 25 Pa. Code Section 130.603(a). One way to determine technological feasibility is to consider whether there are any manufacturers who have proven capable of producing complying formulations which have a quality comparable to the higher volatile organic compound (VOC) content product offered under the earlier AIM rules. In their June 2000 Staff Report, the California Air Resources Board (CARB) determined that the 250 gram per liter VOC limit for stains was technologically and commercially feasible. They also determined that compliant products were being marketed at that time. Therefore, the Sherwin-Williams' application for a variance fails to meet the criteria specified in Section 130.306(c)(1) and provides neither a legal nor a rational public policy justification for granting the request. (1 and 2)

Response: The Department agrees that there are manufacturers that produce interior wood wiping stains formulated to comply with the volatile organic compound (VOC) content limit for stains specified in Table 1 in 25 Pa. Code Section 130.603. Among the interior wiping stains manufactured to meet the limits are: Vista Paint's WN11 Interior Wiping Stain and UGL's ZAR Wood Stain, formulated at less than 250 grams of VOC per liter. Although there may be other manufacturers that produce complying interior wiping stain formulations, the issue is whether Sherwin-Williams has demonstrated to the Department's satisfaction that it is technologically infeasible for Sherwin-Williams to comply.

Sherwin-Williams has not demonstrated to the Department's satisfaction that it is technologically infeasible for Sherwin-Williams to comply with the requirements of 25 Pa. Code § 130.603(a).

Sherwin-Williams indicated that it is technologically infeasible to formulate certain interior wiping stains to comply with the VOC content limits of 25 Pa. Code § 130.603(a) "...without substantially increasing toxicity or fire hazard, or jeopardizing the performance criteria which make these products feasible for application to large surfaces (e.g., floors, paneling, etc.) or fine wood surfaces that will not be subsequently top coated with a clear finish." These are the principal factors upon which Sherwin-Williams relies in claiming technological infeasibility.

Sherwin-Williams has not demonstrated to the Department's satisfaction that reformulation of interior wiping stains to compliance levels will result in products with increased toxicity or fire hazard.

Sherwin-Williams cites "lapping" and "grain raising" as the adverse performance impacts that would result in large area wiping stain applications from Sherwin-Williams' reformulation of interior wiping stains to water-based formulations. Sherwin-Williams cites rapid drying of complying stains as a factor that results in "lapping" when stains are applied on large areas such as floors. Sherwin-Williams further indicates that "grain raising" is an unacceptable effect of the use of complying interior wiping stain formulations.

Sherwin-Williams has not demonstrated to the Department's satisfaction that Sherwin-Williams stains reformulated to compliance levels are unsatisfactory due to "lapping". While Sherwin-Williams questions whether "lapping" can be avoided by multiple applicators working in close harmony, Sherwin-Williams' submittals actually describe how this can be done. Sherwin-Williams indicates that contractors should not be required to hire additional staff based on the nature of the coating being applied on a given job. The real issue appears to be not one of feasibility of formulating complying interior wiping stains, but the possible increased effort and cost to apply complying formulations to large areas.

Sherwin-Williams has not demonstrated to the Department's satisfaction that "grain-raising" is an insurmountable performance issue related to the use of complying interior wiping stain formulations. Various sources acknowledge that "grain raising" can occur with water-based stain formulations, but that there are techniques to mitigate the effect if it does occur. Sherwin-Williams indicates, in product information available on the Minwax website, with respect to its water-based *Minwax Accents* © water-based stain: "To remove any grain raising, after staining apply a clear finish, let dry, then sand lightly with fine sandpaper before applying a final clear coat." (A copy of the *Minwax Accents*© web page is attached.) Although "grain raising" may occur with the use of water-based stains, Sherwin-Williams provides recommendations for addressing the concern.

Comment 2. The application for a variance submitted by Sherwin-Williams fails to demonstrate that the public interest in issuing the variance outweighs the public interest in avoiding increased emission of air contaminants. Therefore the Sherwin-Williams' application for a variance fails to meet the criteria specified in Section 130.306(c)(2) and provides neither a legal nor a rational public policy justification for granting the request.
(1)

Response: The Department has determined that the Sherwin-Williams application for a variance does not demonstrate to the Department's satisfaction that the public interest in issuing the variance outweighs the public interest in avoiding the increased emissions of air contaminants that would result if the variance were issued.

Sherwin-Williams cited aesthetic and economic interests of appearance, ease of use, increased labor time and increased labor costs, as well as potential increased use of clear topcoat, as the principal "public interest" issues related to the request for a variance. Sherwin-Williams indicated that custom wood flooring contractors demand quality wiping stains so as not to jeopardize jobs by a switch to pre-finished wood flooring. Sherwin-Williams indicated that the concerns about the use of complying water-based formulations relate primarily to large area interior wiping stains used on floors, as well as to stains used on items that are not finished with a topcoat. This is only a segment of interior wiping stain usage.

In correspondence dated April 26, 2005, Sherwin-Williams requested a compliance date of December 31, 2007. Sherwin-Williams indicated that the public interest would be

better served by allowing noncomplying stains to be sold at the expense of increased levels of VOC emissions during the requested variance period extending until December 31, 2007.

Sherwin-Williams indicated that the use of noncomplying interior wiping stains may, in some cases, eliminate the need for clear coating of finished woodwork, providing some level of avoided emissions. Sherwin-Williams has not demonstrated to the Department's satisfaction that use of complying interior wiping stain formulations will result in increased use of clear finishes, nor in an increase in emissions. Sherwin-Williams has not demonstrated to the Department's satisfaction that the public interest in issuing the variance would outweigh the health-based public interest in avoiding increased emissions of air contaminants that would result from issuing the variance.

The reduction of volatile organic compound (VOC) emissions from architectural and industrial maintenance (AIM) coatings is a part of the Commonwealth's program to address unhealthful ozone air quality in the Commonwealth. Granting the variance will authorize higher levels of VOC emissions from AIM coatings than if the variance is not granted. In nonattainment areas of the Commonwealth, these additional VOC emissions will contribute to the formation of continued ozone levels in excess of the federal health-related National Ambient Air Quality Standard (NAAQS) for ozone. Levels of ozone in excess of the NAAQS would be injurious to the public health.

Comment 3. The application for a variance submitted by Sherwin-Williams fails to demonstrate that the applicant's compliance plan will achieve compliance as expeditiously as possible. Therefore, the Sherwin-Williams' application for a variance fails to meet the criteria specified in Section 130.306(c)(3) and provides neither a legal nor a rational public policy justification for granting the request. (1 and 2)

Response: Sherwin-Williams indicated in its original variance request that it was not known when a suitable interior wiping stain formulation would be identified. Sherwin-Williams requested that a variance initially be granted for five years. The March 16, 2004 revised variance request indicated that research and development efforts "are directed towards a targeted January 1, 2010 compliance goal." In recent correspondence dated April 26, 2005, Sherwin-Williams requested a compliance date of December 31, 2007.

Sherwin-Williams provided only limited information regarding the scope of their efforts. Sherwin-Williams indicated that the company's research program is focused on alternative formulations, including use of exempt solvents and high solids formulations. Sherwin-Williams submitted additional information, which Sherwin-Williams requested that the Department treat as confidential business information. However, the information provided was insufficient for the Department to evaluate whether or not the compliance program could reasonably be implemented or would achieve compliance as expeditiously as possible.

Because the information provided to the Department by Sherwin-Williams fails to demonstrate to the Department's satisfaction that it is technologically infeasible for Sherwin-Williams to comply with the requirements of §130.603(a), fails to demonstrate to the Department's satisfaction that the public interest in issuing the variance would outweigh the public interest in avoiding increased emissions of air contaminants that would result from issuing the variance, and fails to demonstrate to the Department's satisfaction that the compliance program proposed by the applicant could reasonably be implemented and would achieve compliance as expeditiously as possible.

Comment 4. Sherwin-Williams has not provided the Department with information and data that support the Sherwin-Williams claim that "research to date has demonstrated that waterborne stains, while suitable for many applications, cannot achieve the handling, appearance and performance criteria for the applications in question." Further, none of this "research" has ever appeared on an administrative record regarding architectural and industrial maintenance coating regulations. (1)

Response: The Department agrees that the applicant has not demonstrated to the Department's satisfaction that complying stains cannot achieve characteristics asserted by the applicant to be necessary.

Comment 6. Contrary to what Sherwin-Williams proffers, ample evidence exists to demonstrate that quality wiping stains which do not exhibit problems of lapping and grain raising are both feasible and widely available. (1 and 2)

Response: Sherwin-Williams has not demonstrated to the Department's satisfaction that Sherwin-Williams stains reformulated to compliance levels are unsatisfactory due to "lapping". While Sherwin-Williams questions whether "lapping" can be avoided by multiple applicators working in close harmony, Sherwin-Williams' submittals actually describe how this can be done. Sherwin-Williams indicates that contractors should not be required to hire additional staff based on the nature of the coating being applied on a given job. The real issue appears to be not one of feasibility of formulating complying interior wiping stains, but the possible increased effort to apply complying formulations to large areas.

Sherwin-Williams has not demonstrated to the Department's satisfaction that "grain-raising" is an insurmountable performance issue related to the use of complying interior wiping stain formulations. Various sources acknowledge that "grain raising" can occur with water-based stain formulations, but that there are techniques to mitigate the effect if it does occur. Sherwin-Williams indicates, in product information available on the Minwax website, with respect to its water-based *Minwax Accents* © water-based stain: "To remove any grain raising, after staining apply a clear finish, let dry, then lightly sand with fine sandpaper before

applying a final clear coat.” (A copy of the *Minwax Accents*© web page is attached.) Although “grain raising” may occur with the use of water-based stains, Sherwin-Williams provides recommendations for addressing the concern.

Comment 7. That a manufacturer has not developed the necessary technology to comply with the rule should not result in granting that manufacturer a variance to continue to produce non-compliant products. (1 and 2)

Response: The Department agrees that a manufacturer’s failure to have developed the manufacturer’s own specific complying technology should not be grounds for obtaining a variance. Section 130.606(c)(1) specifies that the Department will not grant a variance unless the applicant demonstrates in writing to the Department’s satisfaction that it is technologically infeasible for the applicant to comply with the requirements of Section 130.603(a).

Sherwin-Williams has not demonstrated to the Department’s satisfaction that it is technologically infeasible for the Sherwin-Williams to comply with the requirements of § 130.603(a).

Comment 8. Sherwin-Williams fails to present a cogent argument that the public interest would be served by granting the variance request. (1)

Response: The Department agrees that Sherwin-Williams has failed to demonstrate to the Department’s satisfaction that the public interest in issuing the variance for interior wiping stains would outweigh the public interest in avoiding increased emissions of air contaminants that would result from issuing the variance.

Comment 9. Sherwin-Williams’ argument that “Consumers and professional contractors demand quality wood finishes with even color and no lap marks, streaks, or grain raising (where grain raising is an issue)” and Sherwin-Williams’ assertion that contractors demand quality wiping stains so as to not jeopardize their business do not provide a compelling case that the public interest would be better served by allowing these products to be sold at the expense of increased air pollution. (1)

Response: The Department agrees that Sherwin-Williams has not demonstrated to the Department’s satisfaction that the public interest in issuing the variance for interior wiping stains would outweigh the public interest in avoiding increased emissions of air contaminants that would result from issuing the variance.

Comment 10. Sherwin-Williams’ statement in its Variance Application that “...it is not known at this time when a suitable formulation will be identified; and, thus, it is

not possible to propose a definitive compliance date”, provides no assurance that it will ever comply with the VOC content limits in the AIM rule. (1)

Response: Sherwin-Williams indicated in its original variance request that it was not known when a suitable interior wiping stain formulation would be identified. Sherwin-Williams requested that a variance initially be granted for five years. The March 16, 2004 revised variance request indicated that research and development efforts “are directed towards a targeted January 1, 2010 compliance goal.” Subsequently, in correspondence dated April 26, 2005, Sherwin-Williams requested a compliance date of December 31, 2007.

Sherwin-Williams provided only limited information regarding the scope of their efforts. Sherwin-Williams indicated that the company’s research program is focused on alternative formulations, including use of exempt solvents and high solids formulations. Sherwin-Williams submitted additional information, which Sherwin-Williams requested that the Department treat as confidential business information. However, the information provided was insufficient for the Department to evaluate whether or not the compliance program could reasonably be implemented or would achieve compliance as expeditiously as possible.

Comment 11. Sherwin-Williams’ application does not meet the legal standard for granting a variance and must be denied. (1)

Response: The Department agrees. Section 130.606 (c) of 25 Pa. Code Chapter 130 specifies that:

The Department will not grant a variance unless the applicant demonstrates in writing the following to the Department’s satisfaction that:

(1) It is technologically infeasible for the applicant to comply with the requirements of § 130.603(a).

(2) The public interest in issuing the variance would outweigh the public interest in avoiding increased emissions of air contaminants that would result from issuing the variance.

(3) The compliance program proposed by the applicant can reasonably be implemented and will achieve compliance as expeditiously as possible.

Based on review and consideration of available information, the Department has determined that the application for a variance submitted by Sherwin-Williams does not meet the requirements of Section 130.606(c) (1), (2) or (3).

Comment 12. Based on research conducted by the California Air Resource Board, the limit for interior wiping stains in Section 130.603 is technologically feasible, and the Department should not grant the variance from the VOC content limits requested by Sherwin-Williams. (3)

Response: The Department has confirmed that the CARB studies have shown that interior wiping stains that meet the VOC content limits in Section 130.603 are commercially available. The Department denies the variance on the grounds that the application for a variance submitted by Sherwin-Williams does not meet the requirements of Section 130.606(c) (1), (2) or (3).

Comment 13. The NJDEP respectfully recommends that the Pennsylvania Department of Environmental Protection not grant the above referenced variance and that if the Pennsylvania Department of Environmental Protection does grant this variance to Sherwin Williams, that the variance expiration date should allow a shorter timeframe variance than five years in order to allow a re-evaluation of technological advances prior to January 1, 2010. (3)

Response: Based on the administrative record, the Department has determined that the variance should not be granted.

Attachment