

**TEXAS NATURAL RESOURCE CONSERVATION COMMISSION
ALTERNATE CONTROL REQUIREMENTS**

TECHNICAL ANALYSIS

3M COMPANY

SUMMARY

After analysis of 3M Company's (3M) request for Alternate Control Requirements (ACR) concerning aerosol household adhesives, "90 High Strength Adhesive" and "Mopar Spray Adhesive" (the Products), the Engineering Services Section (ESS) has determined that the request meets the criteria set forth in Title 30, Texas Administrative Code, Chapter 115, §115.613(c) for approval of ACR. No comments were received during the public comment period or at the public hearing. The ESS recommends that the commission issue the attached order, which will allow the Products to be sold, supplied, offered for sale, distributed, and manufactured for use in Texas commencing on the date of the issuance of the order and continuing through June 30, 1997 while following a schedule to develop, test, and market reformulated compliant products.

BACKGROUND

3M currently sells two household aerosol adhesives in Texas, 90 High Strength Adhesive and Mopar Spray Adhesive, which do not meet the volatile organic compounds (VOC) limit of 75 percent by weight as specified in §115.612(a)(1).

3M has labeled the 90 High Strength Adhesive with an advisory since January 1995, stating that the product is not for sale to the consumers in Texas, but 3M has continued to sell the product to institutional and commercial customers. However, because of potential problems of controlling sales to household consumers, some multimarket sellers who serve both the consumer and the institutional and commercial markets in Texas have stopped selling 3M aerosol adhesive products, resulting in a loss of income to 3M. With regard to Mopar Spray Adhesive, originally 3M had interpreted both the California Air Resources Board (CARB) and the Texas Natural Resource Conservation Commission (commission) consumer products rules as not applicable to this product because of its exclusive use in the automotive repair industry. However, CARB recently ruled that Mopar Spray Adhesive should be considered a household consumer product, and the ESS concurs with this determination regarding the Texas rule. Therefore, 3M submitted an ACR request, which, if approved, will allow the Products to be sold in Texas.

ALTERNATE CONTROL REQUIREMENTS ANALYSIS

Section 115.613(c) provides that a person may petition the executive director for ACR if the VOC limit of the product cannot be met because of extraordinary reasons beyond the person's reasonable control. Section 115.613(3)(4) requires the executive director to consider health and property effects associated with product emissions, the product's social and economic value, the technical practicability and economic reasonableness of reducing the emissions resulting from the product, and the total emissions arising from use of the product.

3M requested ACR based on the grounds of unavailability of compliant aerosol adhesives for specific performance requirements, economic hardship resulting from withdrawal of non-compliant products from

the market, and minimal excess VOC emissions (that is, VOC reductions required by rule but not yet implemented).

The ESS has considered the following criteria during the review and analysis of the ACR pursuant to §115.613(c)(3).

(1) Health and Property Effects Associated with Products Emissions

The ESS believes that the Products, with excess VOC emissions of 0.07 ton per year, will not cause injury to any person who uses the Products or interfere with the public's health and physical property. The Products do not contain any material which is currently classified as hazardous, or which is likely to cause adverse health or property effects.

(2) Products' Social and Economic Value

3M has provided information that compliant aerosol adhesives on the market cannot meet the specific performance requirements for automobile applications, such as high strength, automobile headliner, and trim applications which the Products provide. The ESS believes that approval of the ACR will allow Texas consumers the opportunity to use the Products which meet their needs.

3M also provided information on the economic impact associated with the ACR approval. 3M could suffer economic impacts including loss of revenue, employee layoffs, and loss of brand equity. In addition, 3M could lose the opportunity to recover some of the research and development investment spent in reformulating the Products by selling the noncompliant Products still in retail stores. The ESS believes that approval of ACR will have an economic impact on 3M, Texas retailers, and distributors.

(3) Technical Practicability and Economic Reasonableness of Reducing the Emission Resulting from the Product

3M has reported that it spent 87,500 hours and \$4,750,000 nationwide over a five-year period in attempts to reformulate the adhesive products to meet VOC standards in Texas and other states. This reformulation effort was not successful because of technological problems. After acetone was exempted from the VOC definition in Chapter 115 on March 7, 1996, 3M found it feasible to incorporate acetone into current solvent-based aerosol adhesives to meet the 75 percent VOC limit. 3M has committed to introduce compliant products in the test market in Texas by January 1, 1997, and to cease selling noncompliant products by July 1, 1997.

(4) Total Emissions Arising from Use of the Product

The total statewide emissions arising from use of the Products are estimated at 0.82 tons per year. However, the total excess VOC emissions associated with the Products, resulting from approval of these ACR, are about 0.07 tons per year. The ESS believes that this amount of excess emissions is not detrimental to the air quality in Texas.

PUBLIC HEARING

A public hearing was held in Austin on November 15, 1996, at the commission Austin offices, pursuant to §115.613(c)(3). Written comments were accepted through November 18, 1996. No testimony was received at the public hearing or during public comment period.

ALTERNATE CONTROL REQUIREMENTS ORDER

The ESS recommends issuance of the attached order. The order will allow the Products to be sold, supplied, offered for sale, distributed, and manufactured for use in Texas commencing on the date of the issuance of the order and continuing through June 30, 1997, while following a schedule to develop, test, and market reformulated products which comply with the VOC limit in §115.612(a)(1). The ESS has developed the terms and conditions, which have been agreed on by 3M, regarding development and testing of reformulated products, removal of noncompliant products by June 30, 1997, introduction of compliant products by July 1, 1997, and a progress report, to ensure the enforcement of the order.

CONCLUSION

Section 115.613(c)(3) sets forth the criteria for approval of Alternate Control requirements. It is the ESS's opinion that 3M's efforts and expense to develop compliant products, in relationship to the magnitude of reduced emissions, meet the requirements in §115.613 for granting ACR. Should you have any questions regarding this analysis, please contact Jean Xu at 239-1823 or Richard Hughes at 239-1554.