

ILLINOIS POLLUTION CONTROL BOARD  
February 19, 1998

MINNESOTA MINING AND	)	
MANUFACTURING COMPANY,	)	
	)	
Petitioner,	)	
	)	
v.	)	PCB 95-90
	)	(Variance - Air)
ILLINOIS ENVIRONMENTAL	)	
PROTECTION AGENCY,	)	
	)	
Respondent.	)	

OPINION AND ORDER OF THE BOARD (by M. McFawn):

Before the Board is the "Petition for Declaration of Compliance or in the Alternative, for Variance" filed by Minnesota Mining and Manufacturing Company (3M). After reviewing the petition and the evidence submitted at hearing, the Board grants 3M a variance from 35 Ill. Adm. Code 218.Subpart QQ, subject to the conditions set forth below. The Board notes that 3M withdrew its request for a compliance declaration at the hearing. Tr. at 18.

PROCEDURAL HISTORY

3M filed its original petition on March 10, 1995. In its petition 3M sought a declaration that it was in unquestioned compliance with 35 Ill. Adm. Code 218.204 or, in the alternative, a variance from the requirements of 35 Ill. Adm. Code 218.Subpart QQ, from March 15, 1995, to March 15, 1997. The Board received one objection to the granting of the variance, from Patrick Rogers, township supervisor for Lyons Township.

The petition concerned regulation of air emissions from 3M's adhesive and saturant compounding operation at its plant in Bedford Park, Illinois. 3M and the Illinois Environmental Protection Agency (Agency) attempted to resolve the regulatory status of 3M's compounding operations at the plant through 3M's participation in the federal "Regulatory Reinvention (XL) Pilot Project" (Project XL). In 1995, 3M was accepted into the federal Project XL program, to develop and implement innovative environmental programs at the facility. 3M met several times with representatives of the Agency, the U.S. Environmental Protection Agency (USEPA), and other stakeholders to develop its Project XL agreement. Ultimately, 3M found that USEPA did not interpret the Project XL objectives consistently with 3M's understanding of the program when it submitted its proposal; 3M subsequently withdrew from the Project XL program. Pet. Ex. 1 at 3.

On March 12, 1997, 3M filed an "Amendment to Petition for Declaration of Compliance or in the Alternative, for Variance," by which it extended the term of the requested variance to March 15, 1999. On July 1, 1997, 3M filed a "Second Amendment to

Petition for Declaration of Compliance or, in the Alternative, for Variance” (2nd Am. Pet.), updating the original petition with new information.

3M requested a hearing in its petition. A hearing was held before Board Hearing Officer Deborah Feinen on December 5, 1997. At the hearing, 3M entered into evidence a letter from Mr. Rogers, as well as State Representative Eileen Lyons and State Senator Christine Radogno, supporting the grant of the requested variance to 3M. Res. Ex. 1.

### BACKGROUND

3M operates a plant in Bedford Park, Illinois, where it manufactures pressure sensitive tape. 3M manufactures over 70 different tape products and uses over 100 distinct coatings at the plant. Pet. Ex. 1 at 1.

The first step in the coating process at Bedford Park is the production of adhesives and saturants in the compounding area. The compounding area is composed of several rooms containing seven blenders and three moguls. The product produced in the moguls and blenders is not the final product applied to the substrates eventually coated; the product has an active ingredient added in separate mixers and churns just before application to substrates. Tr. at 9-10. Thereafter, the product is applied on the coating lines of the plant. Pet. Ex. 1 at 5.

All of the adhesives and saturants produced by 3M at the Bedford Park plant are used on-site. Pet. Ex. 1 at 5. Most manufacturing facilities engaged in coating, however, obtain their coatings from off-site and only perform the final steps needed to prepare the coatings for application. The manufacturing of coatings generally occurs at other facilities that specialize in producing certain types of coatings. Tr. at 10. These other facilities are regulated as manufacturers of coatings under Subpart QQ rather than applicators of coatings under Subpart F or Subpart PP of Section 218. Tr. at 11, 12.

### STATUTORY AND REGULATORY FRAMEWORK

#### Jurisdiction and Authority

The Board's jurisdiction and authority in this matter arise from the Environmental Protection Act (Act), 415 ILCS 5 (1996). In determining whether a variance is to be granted, the Act requires the Board to decide if a petitioner has presented adequate proof that immediate compliance with the Board regulations at issue would impose an arbitrary or unreasonable hardship. 415 ILCS 5/35(a) (1998). Furthermore, the petitioner bears the burden of proving that its claimed hardship outweighs the public interest in attaining compliance with regulations designed to protect the public. Willowbrook Motel v. Pollution Control Board, 135 Ill.App.3d 343, 481 N.E.2d 1032 (1st Dist. 1977). Only by such a showing can the claimed hardship rise to the level of arbitrary or unreasonable hardship.

A further feature of a variance is that it is, by its very nature, is a temporary reprieve from compliance with the Act or Board regulations, and compliance is to be sought regardless of the hardship which eventual compliance presents an individual polluter. Monsanto Co. v.

Pollution Control Board, 67 Ill.2d 276, 287, 367, N.E.2d 684, 688 (1977). Accordingly, a variance petitioner is required, as a condition to grant of variance, to commit to a plan which is reasonably calculated to achieve compliance within the term of the variance, unless certain special circumstances exist.

Section 36(a) of the Act (415 ILCS 5/36(a) (1998)) provides that “[i]n granting a variance the Board may impose such conditions as the policies of this Act may require.” The Agency is charged, among other things, with the responsibility of investigating each variance petition and making a recommendation to the Board as to the disposition of the petition. 415 ILCS 5/37(a) (1998).

#### Standard from which Variance is Sought

3M seeks a variance from the requirements of 35 Ill. Adm. Code 218.940 through 218.946 (collectively, Subpart QQ). Subpart QQ imposes general emission requirements on manufacturing processes which are not subject to other specific provisions of Part 218. Certain sources are exempted from the operation of Subpart QQ (see 35 Ill. Adm. Code 218.940(g)), but none of these exceptions applies to 3M. The provision of Subpart QQ of greatest impact to 3M is Section 218.946, which provides:

Every owner or operator of a miscellaneous formulation manufacturing process emission unit subject to this Subpart shall comply with the requirements of subsection (a) or (b) below.

- a) Emission capture and control techniques which achieve an overall reduction in uncontrolled VOM emissions of at least 81 percent from each emission unit, or
- b) An equivalent alternative control plan which has been approved by the Agency and the USEPA in a federally enforceable permit or as a SIP revision.

3M and the Agency are negotiating an Environmental Management System (EMS) agreement, which pursuant to Section 52.3-3 of the Act (415 ILCS 5.52.3-3 (1998)) would supersede any inconsistent regulations. (The EMS agreement is discussed in more detail below under “Compliance Plan.”) 3M seeks a variance to avoid noncompliance until the EMS agreement has been finalized.

#### Applicability of Subpart QQ

The Agency takes the position that 3M’s compounding operation is separate from its coating operation: the compounding operations are the formation, rather than application, of coatings. In its initial petition, 3M took the position that the compounding operation should be regulated as part of the coating operation (*i.e.*, under Subpart F of Section 218 rather than Subpart QQ). This position was the basis of 3M’s request for a declaration that it was in

unquestioned compliance with Section 218.204. At the hearing, the parties stated that they had agreed to proceed with the request for variance, and that 3M was no longer seeking the declaration of compliance with Section 218.204. Tr. at 18. Based on the testimony of Christopher Romaine, a Unit Manager for the Agency, the Board finds that the coating and compounding operations, although related and located at the same facility, are separate for the purposes of regulation under Part 218. Accordingly, the Board concludes that Subpart QQ applies to 3M's compounding operation.

### COMPLIANCE PLAN

As a means of compliance, 3M intends to enter into an EMS agreement with the Agency. EMS agreements are authorized as part of a program created under Section 52.3-1 of the Act (415 ILCS 5/52.3-1 (1998)). The program is described in Section 52.3-1(b), which provides in part:

It is the purpose of this Section to create a voluntary pilot program by which the Agency may enter into Environmental Management System Agreements with persons regulated under this Act to implement innovative environmental measures not otherwise recognized or allowed under existing laws and regulations of this State if those measures:

1. achieve emissions reductions or reductions in discharges of wastes beyond the otherwise applicable statutory and regulatory requirements through pollution prevention or other suitable means; or
2. achieve real environmental risk reduction or foster environmental compliance by other persons regulated under this Act in a manner that is clearly superior to the existing regulatory system.

Section 52.3-2(a) of the Act (415 ILCS 5/52.3-2(a) (1998)) authorizes the Agency to enter into EMS agreements even if terms of the agreement would be inconsistent with other applicable State statutes or regulations. Under Section 52.3-3(a) of the Act (415 ILCS 5/52.3-3(a) (1998)), inconsistent statutes or regulations do not apply during the term of the EMS agreement.

Under the strategy proposed by 3M for its EMS agreement, 3M would provide overall reductions equal to 100% of volatile organic material (VOM) emissions from its compounding operations. Tr. 15. (Total emission from compounding operation moguls and blenders are only approximately 2% of total facility emissions, and total facility emissions are already substantially below regulatory limits. Pet. Ex. 1 at 7.) This would enable 3M to more effectively use resources that it would otherwise have expended for a control system for the compounding operation. For instance, 3M would be able to reduce VOM emissions elsewhere

at the facility much more productively by further controlling VOM emissions from the coating lines, which generate the overwhelming majority of the plant's emissions. Tr. at 15.

### PAST EMISSION REDUCTION EFFORTS

3M describes the Bedford Park plant as a "model for achieving superior environmental performance." 2nd Am. Pet. at 3. The Bedford Park plant has been the site of a number of emissions-reduction initiatives by 3M. In 1991, 3M accepted a voluntary limit on VOM emissions from its control line of 4,500 tons per year (TPY). The corresponding reductions (2,885 tons) were returned to the State for air quality improvement. In 1994, 3M voluntarily reduced its VOM emissions limit to 4,000 TPY, and donated 500 tons of emission reduction credits to the State and the City of Chicago for air quality improvement and economic development purposes. Also in 1994, 3M received a permit for construction of a new coating line, the 6G line. 3M offset the emissions from the new line by overcontrolling emissions from two other lines. 3M's current plant-wide VOM emission cap is 3,822 TPY. Pet. Ex. 1 at 1-2.

To date, 3M has already reduced the VOM emissions from its compounding operations substantially. This reduction was a result of various process improvements, including the replacement of blender tops, the installation of a system to air convey solids to the blenders and moguls, and the installation of new reflux condensers on each of the blenders. By 1995, improvements to 3M's compounding operations had reduced emissions from blenders and moguls by nearly 81% from 1988 levels. This reduction is comparable to the reduction intended by Subpart QQ. Pet. Ex. 1 at 5.

### HARDSHIP

The Agency's concern is the loss of VOM into the workrooms in which the moguls and blenders are located, which occurs when the units are charged with raw materials. The VOM emissions resulting from the charging of raw materials are mixed with and dispersed in the room ventilation air and discharged as part of the room ventilation system. Tr. at 9-10. Total air flow necessary to capture all emissions from the rooms where compounding blenders and moguls are located is in excess of 30,000 cfm. 3M cannot reasonably duct the amount of air flow from the compounding area to one of the existing oxidizers at the facility; to further control emissions from this area, 3M would most likely need to duct the entire airflow from the compounding facilities to an entirely new control device. The duct work necessary to vent these rooms to the control device would be expensive and time-consuming to construct. Pet. Ex. 1 at 7-8.

Although 3M has not provided actual costs to control emissions from the compounding operations, the Agency agrees that controls would be costly, involving either a permanent system of partial capture on the individual compounding operations or total enclosure for the rooms in which the compounding operations are located, where such systems were not

contemplated in the original design of these areas and cannot now be readily accommodated.<sup>1</sup> Neither of these options, the Agency agrees, is practical. (The Agency has expressed confidence that the cost of a control system would exceed what the Board has previously considered reasonable. Tr. at 14.) Thus, if required to comply with Subpart QQ, 3M could be forced to dramatically reduce production of adhesives and saturants at the plant, which could potentially paralyze 3M's operations at the plant, since the compounding operations are the first step in plant operations.

### ENVIRONMENTAL IMPACT

As is noted above, the Bedford Park plant is already well under emissions limits, and under the described EMS agreement total emissions will be further reduced. Already, 3M has agreed to accept a plant-wide emissions cap of 2,790 TPY under its operating permit for the new 6G coating line. This represents a reduction of 1,032 TPY; 200 TPY of this reduction is not being reallocated elsewhere, but is being retired to improve air quality. 3M and the Agency have agreed that 3M's baseline under the Emission Reduction Market System (ERMS) program will be further reduced because the emissions from the plant's mixers and churns will not be included in calculating emissions from its coating line. Thus, 3M's seasonal allotment under ERMS for 1999 and thereafter will be approximately 1,023 tons. These voluntary reductions in 3M's baseline will achieve environmental results superior to strict compliance with Subpart QQ.

### CONSISTENCY WITH FEDERAL LAW

Under Section 35 of the Act, the Board can grant variances only if they are consistent with the federal Clean Air Act (P.L. 95-95, as amended). Because the plant is located in a severe ozone nonattainment area, a variance from the requirements of Subpart QQ will be subject to separate USEPA approval. Assuming such approval, the Board is unaware of any other federal law which would prohibit the granting of the requested variance.

### RETROACTIVE RELIEF

3M seeks a variance from March 15, 1995, to March 15, 1999, *i.e.*, a retroactive variance. Although the Board does not generally grant variances retroactively, retroactive variances have been granted upon specific justification. Deere & Company v. IEPA (September 8, 1988), PCB 88-22. The Board has stated that the reasoning behind the general policy is to discourage untimely filed petitions for variance, *i.e.*, variances filed after the start of the claimed arbitrary or unreasonable hardship creating the desire for a retroactive start, and because the failure to request relief in a timely manner is a self-imposed hardship. See

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<sup>1</sup> 3M estimates that a control device necessary to handle the intermittent operations and this amount of air flow would require an initial capital cost in excess of \$1,000,000. In addition, operating costs would also be excessive since most of the time a very low amount of VOM would be conveyed to the oxidizer. Pet. Ex. 1 at 8.

Fedders-USA v. IEPA (April 6, 1989), PCB 86-47; DMI, Inc. v. IEPA (February 23, 1987), PCB 88-132; and American National Can Company v. IEPA (August 31, 1989), PCB 88-203.

In this case, the petition for variance was filed prior to the rules from which a variance was sought becoming effective. The long duration of this petition is due to the extensive negotiations surrounding 3M's participation in the federal XL Program and its proposed EMS agreement with the Agency. The Board does not believe that these circumstances are in the nature of a "self-imposed hardship." The Board finds that granting of retroactive relief in this case will not violate the policies behind the Board's disfavor of retroactive variances. The Board will therefore grant 3M's variance for the requested period.

### CONCLUSION

The Board finds that 3M will suffer a substantial hardship if forced to comply with the provisions of Subpart QQ. The Board also finds, in light of the total emission reductions proposed for the Bedford Park plant, that the hardship outweighs the public's interest in enforcement of the requirements of Subpart QQ. The Board further finds that 3M's compliance plan is reasonably calculated to achieve compliance within the term of the requested variance. The Board accordingly grants 3M a variance from the requirements of Subpart QQ. A condition of this variance will be 3M's acceptance of limits on VOM emissions and seasonal allotments under ERMS of 2,455 TPY and 1,023 tons, respectively. This condition, to which 3M has agreed, will ensure that there is no adverse effect on the environment as a result of the variance.

The term of the variance will be from March 15, 1995, to March 15, 1999. The Agency included in its proposed language an alternative termination date of "the date the Illinois EPA and 3M enter into an 'Environmental Management Systems Agreement' under Section 52.3 of the Act[.]" Under Section 52.3-3(a) of the Act, any regulations inconsistent with an EMS agreement do not apply during the term of the agreement. Thus, this alternative termination date is superfluous. This opinion constitutes the Board's findings of fact and conclusions of law in this matter.

### ORDER

3M is granted a variance from the requirements of 35 Ill. Adm. Code 218.Subpart QQ for the compounding operations at its Bedford Park plant from March 15, 1995, to March 15, 1999. 3M must accept limitations on emissions of VOM and seasonal allotment under the ERMS program of 2,455 TPY and 1,023 tons per season, respectively.

If 3M chooses to accept this variance subject to the above order, then within 45 days of the date of this order 3M must execute and forward to:

Laurel Kroack  
Illinois Environmental Protection Agency  
Division of Legal Counsel  
1021 North Grand Ave., East  
Springfield, IL 62702

a certificate of acceptance and agreement to be bound to all terms and conditions of the granted variance. Such acceptance must be signed by an officer of 3M, duly authorized to bind 3M to all of the terms and conditions of the final Board order in this matter. The 45-day period will be held in abeyance during any period that this matter is appealed. Failure to execute and forward the certificate within 45 days renders this variance void and of no force and effect as a shield against enforcement of rules from which the Board has granted relief. The form of the Certificate of Acceptance should be substantially similar to the following:

CERTIFICATE OF ACCEPTANCE

Minnesota Mining and Manufacturing Company hereby accepts and agrees to be bound by all the terms and conditions of the order of the Pollution Control Board adopted on February 19, 1998, in PCB 95-90.

MINNESOTA MINING AND  
MAUFACTURING COMPANY

By: \_\_\_\_\_  
Authorized Agent

\_\_\_\_\_  
Title

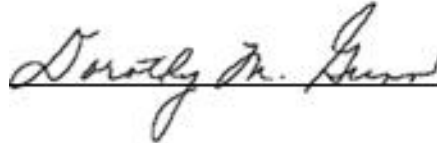
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Date

IT IS SO ORDERED.

Section 41 of the Environmental Protection Act (415 ILCS 5/41 (1996)) provides for the appeal of final Board orders to the Illinois Appellate Court within 35 days of service of this order. Illinois Supreme Court Rule 335 establishes such filing requirements. See 145 Ill. 2d R. 335; see also 35 Ill. Adm. Code 101.246, Motions for Reconsideration.



I, Dorothy M. Gunn, Clerk of the Illinois Pollution Control Board, hereby certify that the above opinion and order was adopted on the 19th day of February 1998, by a vote of 6-0.

A handwritten signature in cursive script, reading "Dorothy M. Gunn", written over a horizontal line.

Dorothy M. Gunn, Clerk  
Illinois Pollution Control Board