

ILLINOIS POLLUTION CONTROL BOARD  
July 11, 1991

IN THE MATTER OF: )  
 )  
PETITION OF DMI, INC. FOR ) R91-9  
SITE-SPECIFIC AIR REGULATIONS ) (Site-Specific Rulemaking)  
35 ILL. ADM. CODE 215.215 )

PROPOSED RULE. FIRST NOTICE.

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

On February 4, 1991, DMI, Inc. (DMI), filed a proposal for a site-specific rulemaking pursuant to Section 27 of the Illinois Environmental Protection Act (Act) (Ill. Rev. Stat. 1989, ch. 111 1/2, par. 1027). The proposal would amend 35 Ill. Adm. Code 215 by adding a new Section 215.215. The new Section would set an emission rate for volatile organic material (VOM) emissions from the paint deck operations of DMI's Goodfield, Illinois plant.

On March 28, 1991, the Board determined that pursuant to Section 27 of the Act, an Economic Impact Study was not necessary for the proposal. The Board today acts to send this regulatory proposal to First Notice, without ruling on the merits of the proposal.

BACKGROUND

DMI is a farm implement manufacturer located in a largely rural area used almost exclusively for farming, near Goodfield, Woodford County, Illinois. (Pet. 4<sup>1</sup>). DMI has two separate permitted processes, the paint room and the paint deck. (Pet. 4). Only the emissions from the paint deck are subject to this rulemaking. Woodford County and the surrounding counties comprise an attainment area for ozone and, according to DMI, no exceedance of the ozone ambient air quality standards has been recorded at the closest monitor (Peoria) "in the past several years". (Pet. 4).

The paint deck operations at DMI consist of two processes. One process is for large pieces with smooth even surfaces which are painted in a spray booth with a hand held spray gun. This process "has proven highly successful, both pragmatically and environmentally, and the VOM content of the paint is compliant with" the rule of general applicability. (Pet. 5). The second process is for smaller intricate parts which cannot be painted with the hand held spray gun. Parts are dipped into a paint dip tank then moved by conveyor to a bake oven for drying. (Pet. 6). It is this process for which DMI seeks a site-specific rule.

<sup>1</sup> The Petition will be cited as (Pet. )

DISCUSSION

The rule of general applicability which DMI is seeking site-specific relief from is 35 Ill. Adm. Code 215.204(j)(3). Section 215.204(j)(3) sets emission limits for Miscellaneous Metal Parts and Products Coating. The limits set for "extreme performance coating" are 4.2 kg/l and 3.5 lb/gal. DMI is specifically asking that its VOM emissions rates be set at the following limits:

<u>Application</u>	VOM limit, lb/gal (less water) <u>Daily Average</u>	<u>Rolling 30-day average, lb/day</u>
Spray coat	3.5 (at spray gun)	
Dip top coat	4.2 (at time of addition to dip tank)	
Dip tank make-up solvent addition		61

(Pet. 8)

DMI stated that since solvent is continuously lost from the dip tank it is necessary to add make-up solvent to the tank in order to maintain viscosity. The rate of solvent loss depends on several factors including room temperature and rate of production, making prediction of solvent make-up is difficult, according to DMI. DMI is projecting a need based on records for the fourth quarter of 1990 for about 61 pounds per day on average. Thus, DMI requests a rolling 30 day average of 61 lb/day. (Pet. 9).

DMI is requesting relief which is similar to relief the Board has granted to John Deere Harvester located in Moline (see In the Matter of John Deere Harvester - Moline, R87-1, (November 3, 1988)) and Roadmaster (see In the Matter of the Site Specific Petition of Roadmaster, R88-19 (April 26, 1990)). (Pet. 7). DMI contrasts its request for relief from the rule of general applicability with the requests by both John Deere and Roadmaster. DMI states that its request calls for a lower emission rate than the other two requests; otherwise DMI is in the same position as those two companies. (Pet. 10).

DMI's effort to achieve compliance with the rule of general applicability date back to 1984, when DMI began to search for a system which would achieve compliance. (Pet. 5). In 1986, DMI set up a special management team to resolve the issue but was unable to find a solution to meet the December 31, 1987 compliance deadline. (Pet. 5). DMI sought and received a variance (PCB 88-132) to operate while a new system was installed. (Pet. 6). DMI

is currently seeking to extend its variance (PCB 90-227) until the site-specific relief is granted or until one year after site-specific relief is denied. (Pet. Ex. A p. 31).

The new system, which is still in use at the plant, was installed at a cost of \$225,000. DMI intended to use water-based paints in the system, which would have resulted in sufficiently low VOM emissions to achieve compliance. (Pet. 6). DMI did in fact use the water-based paints in the new system for around twenty months. However, the quality of the paint was below DMI's expectations. The paint showed "poor stability, failed to dry a proper hardness [sic], tended to separate, left white flecks or speckles in painted finishes, provided poor edge coverage which resulted in surface rust problems, failed to consistently meet thickness specifications, and formed fisheye patterns in the finished paint surface." (Pet. 6).

DMI and its paint supplier worked to try and solve the paint problems; however, on September 4, 1990, the paint supplier advised DMI that it had "exhausted all avenues available to find a solution". (Pet. 7). DMI then investigated alternative forms of compliance, including an afterburner system, but found the alternative methods were cost prohibitive. (Pet.7). DMI stated in its petition that:

One bid, for instance called for installation of 2000 SCFM Eisenmann unit at a cost of around \$300,000; amortized over ten years, such a system would cost DMI about \$65,000 per year, but would result in the elimination of only around 9.2 tons per year of VOM emission, resulting in a yearly cost per ton of emission. elimination of around \$7,065. (Pet. 7).

DMI contrasts the cost for it to achieve compliance with the estimate provided to the Board in the RACT II rulemaking (R80-5). In that rulemaking, the "Illinois Institute of Natural Resources stated that compliance with the rule in attainment areas would be around \$1,032 per ton of required reduction." (Pet. 9).

Pursuant to Section 27 of the Act the Board may adopt "regulations specific to individual persons or sites". In promulgating regulations under the Act, the Board shall take into consideration the physical conditions and character of the surrounding areas, the nature of existing air quality as well as the technical feasibility and economic reasonableness of reducing the pollution. DMI has presented information which indicates that the rule of general applicability is not economically reasonable for its facility as justification for a site-specific rule. In addition, DMI has presented evidence of its efforts to comply with the rule of general applicability as well as information on sites similarly situated to DMI. Therefore, the Board will proceed with

the language for a site-specific rule proposed by DMI with minor editing changes.

The Board notes that the language proposed by DMI is identical to the language contained in the Roadmaster site-specific regulation, except for the differing emission standards. Thus, the language in this proposal has already been reviewed by the Joint Committee on Administrative Rules.

The Board again notes that this action does not constitute the Board's adoption of a substantive position concerning the proposal.

#### ORDER

The Board direct the Clerk to cause First Notice publication in the Illinois Register of the following proposed rule:

#### Section 215.215 DMI Emissions Limitations

Notwithstanding the limitation of Section 215.204(j)(3), the DMI, Inc., Goodfield, Illinois plant shall not cause or permit the emission of volatile organic material from its existing paint deck operations, including overall emissions from its existing dip tank, spray gun and bake oven system, to exceed a daily average of 3.5 lb/gal for the spray coat application, 4.2 lb/gal for the dip top coat application, and a rolling 30-day average of 61 lb/day for the dip tank make-up solvent addition. DMI, Inc. shall fulfill all of the following conditions:


- (a) DMI, Inc. shall contact at least three (3) paint vendors each year in a continuing search for a compliant coating that it can successfully use in its existing paint deck operations, including any paint vendors suggested by the Agency in a writing delivered to DMI, Inc. by certified mail;
- (b) If any vendor provides DMI, Inc. with laboratory test results which demonstrate that DMI, Inc. may be able to use the vendor's paint in its existing paint deck operations as a substitute for the existing paint, DMI, Inc. will conduct production tests of that paint;
- (c) DMI, Inc. will submit a report to the Agency by March 1 of each year that includes a summary of its efforts during the preceding calendar year, as those efforts relate to DMI, Inc.'s compliance with the foregoing conditions contained in subsections (a) and (b), above;
- (d) If DMI, Inc. locates a compliant paint that it can successfully use in its existing paint deck operations,

and the net annual expense of using the compliant paint is not more than ten percent (10%) greater than the then current net annual expense incurred in the existing painting process, DMI, Inc., shall convert its present paint deck operations to the use of that paint within 180 days after the final successful testing of such a paint; and

- (e) This Section shall expire on January 1, 2000, at which time DMI, Inc. shall comply with the provisions that generally apply to VOM emissions.

IT IS SO ORDERED.

I, Dorothy M. Gunn, Clerk of the Illinois Pollution Control Board, do hereby certify that the above Opinion and Order was adopted on the 17<sup>th</sup> day of July, 1991, by a vote of 7-0.

  
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Dorothy M. Gunn, Clerk  
Illinois Pollution Control Board