

ILLINOIS POLLUTION CONTROL BOARD
September 5, 1996

THE SOLAR CORPORATION,)	
)	
Petitioner,)	
)	
v.)	PCB 96-239
)	(Variance - Air)
ILLINOIS ENVIRONMENTAL)	
PROTECTION AGENCY,)	
)	
Respondent.)	
)	

MARK LATHAM, GARDNER, CARTON & DOUGLAS, APPEARED ON BEHALF OF PETITIONER;

SHEILA G. KOLBE, ASSISTANT COUNSEL, APPEARED ON BEHALF OF RESPONDENT.

OPINION AND ORDER OF THE BOARD (by J. Theodore Meyer):

On May 22, 1996 The Solar Corporation (Solar) filed a petition for variance seeking relief from the reasonable available control technology (RACT) regulations that limit volatile organic material (VOM) emissions from automotive plastic parts coatings. Specifically, Solar requests relief from the requirement set forth at 35 Ill. Adm. Code 218.404(n)(1)(B)(i), as it applies to VOM emissions from Solar's facility located in Libertyville, Illinois. In its petition, Solar requested a hearing in this matter and one was held August 9, 1996 at Libertyville Village Hall before Hearing Officer June Edvenson.

On May 30, 1996 the Illinois Environmental Protection Agency (Agency) filed a motion for extension of time in which to file its recommendation which was granted by hearing officer order dated June 19, 1996. The Agency filed its recommendation on July 15, 1996 in which it supports a granting of the requested variance, subject to certain conditions. In addition, pursuant to Section 37(a) of the Illinois Environmental Protection Act (Act), the Agency sent notice of the petition for variance to State Senator Adeline Geo-Karis; State Representative Andrea Moore; Chairperson of the Lake County Board, Robert W. Depke; and State's Attorney for Lake County, Michael J. Waller. The Agency also placed legal notice of the petition for variance in a newspaper of general circulation in Lake County. (415 ILCS 5/37(a) (1994).) (Rec. at 2.)¹ The Agency received no written comments to these notifications prior to filing its recommendation.

At hearing, the Agency presented a motion to modify its proposed compliance plan and certification of the Agency recommendation instanter, which was duly filed on August 12, 1996. Upon learning from Solar of the prohibitive cost of the testing requirement set forth in its recommendation, the Agency determined that the VOM content of coatings can be verified by

¹ Solar's Petition will be cited as (Pet. at ___.) The Agency recommendation will be cited as (Rec. at ___), and the hearing transcript will be referred to as (Tr. at ___).

Material Safety Data Sheets (MSDS), provided that no additional solvent is used. The Board hereby grants the Agency's motion and accepts the modification to its recommendation.

The Board's responsibility in this matter arises from the Act which gives the Board the ability to grant variances from Board regulations whenever it is found that immediate compliance with the regulations would impose an arbitrary or unreasonable hardship upon the petitioner. (415 ILCS 5/35(a) (1994).) The Agency is required to appear at hearings on variance petitions, and is charged with the responsibility of investigating each variance petition and making a recommendation to the Board as to the disposition of the petition. (415 ILCS 5/4(f) and 5/37(a).)

For the following reasons the Board finds that Solar has presented adequate proof that immediate compliance with 35 Ill. Adm. Code 218.404(n)(1)(B)(i) would result in the imposition of an arbitrary or unreasonable hardship. Therefore, Solar's request for variance is granted, subject to the conditions set forth in the order below.

BACKGROUND

Solar owns and operates a 250,000 square foot plant located on 17 acres at 100 Solar Drive, Libertyville, Lake County, Illinois. Solar employs approximately 600 people for the manufacture of miscellaneous fabricated products, including custom-made painted plastics such as: injection molded decorative assemblies, seating trim components, speaker grilles and electronic subassemblies. (Pet. at 2, Rec. at 3.) Solar produces for original equipment manufacturers of automobiles, including General Motors. (Pet. at 2.)

Solar's paint requirements are driven by its customers, and each paint used must meet the rigid specifications and approval of the customer. In addition, each major product line is cyclical which results in wide swings in production and overlapping business cycles. A further challenge is that Solar is a "job shop", manufacturing products on an as-needed basis determined by the customer, without maintaining an inventory. To promptly respond to the demands of its customers, Solar must have flexible production capabilities to quickly re-tool on short notice. (Pet. at 3.)

To achieve maximum production flexibility, Solar employs a four-person work line, running approximately 67 production work lines during peak periods of operations. Its facility operates on a five-day work week, employing a three-shift basis for molding and assembly, and a two-shift basis for painting. Solar maintains a base of over 500 products, and can make 30 to 35 line changes on a typical day. (Pet. at 3.)

Paint is applied to plastic parts by use of spray guns located in three spray booths equipped with filters to control paint over-spray but with no control devices for VOM emissions. The only material used during the process are plastic parts, paint, and clean-up and reducing solvents. (Pet. at 3-4.) A majority of the paints needed to meet customer demands have been reformulated to water-based paints, and meet the applicable air-dried automotive interior color coating limitations set forth at 35 Ill. Adm. Code 218.204(n)(1)(B)(i). However, Solar's customers require the use of six paints not yet available in water-based versions. (*Id.* at 5.) As a result, Solar is requesting a variance to use approximately 154.25 gallons of solvent-based paint it purchased prior to the promulgation of the plastic parts coating rule. Each order is expected to require only 4.8 to 5.1 gallons of paint, and Solar is committed to limiting total VOM emissions associated with these

solvent-based paints to no more than 1,500 pounds, or 0.67 tons, during the life of the variance. (Id., Tr. at 12.) Solar anticipates far less emissions than that, since the reformulations of the paints is expected to be complete within the next year. In fact, since the filing of this petition, one paint has already been reformulated to water-based paint. (Tr. at 20.)

REGULATORY FRAMEWORK

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).) 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.

In addition, a variance, by its very nature, is a temporary reprieve from compliance with the Board's 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.

The instant variance request concerns the limitation of VOM emissions from automotive plastic parts coating operations found at 35 Ill. Adm. Code 218.204(n)(1)(B)(i) titled Subpart F: Coating Operations-Emission Limitations -- Plastic Parts Coating: Automotive/Transportation - Interiors-Air Dried-Color Coat. The limitation is set at 0.38 kg/l or (3.2) lb/gal.

COMPLIANCE PLAN

Past Compliance Efforts

Solar states that it has voluntarily designed and purchased new processes, products and equipment to reduce total VOM emissions at its Libertyville facility. It has worked closely with its paint supplier since 1991 to develop water-based alternatives to the paints demanded by its customers. (Tr. at 20-21.) In addition, Solar filed February 14, 1994 for an adjusted standard from the Miscellaneous Fabricated Product Manufacturing Processes set forth at 35 Ill. Adm. Code 218.920, which was granted on July 20, 1995. Solar also participated in rulemaking R94-21, In the Matter of 15% ROP Plan Control Measures for VOM Emissions -- Part IV, under which Section 218.204(n)(1)(B)(i) was adopted.

Compliance Alternatives

In order to achieve compliance with the Act and Board regulations, Solar reports that it hired a consultant to investigate the use of add-on controls to achieve a capture and control efficiency of 81%. (Pet. at 7.) The consultant studied carbon absorbers, thermal and catalytic afterburners, as well as condensers, and estimated that the cost to install capture and control equipment at the spray booths would be more than \$25,000 per ton. Solar states that the use of any add-on controls is economically unreasonable because it has reformulated 98% of its paints, and

only 154.25 gallons of non-compliant paint, purchased at approximately \$4,600, will be used. (Pet. at 7, Tr. at 8-9, 30-31.)

Solar also discussed with the Agency two existing alternative compliance options for plastic parts coatings. The first alternative, daily-weighted averaging, is outlined at 35 Ill. Adm. Code 218.205(g)(1). The parties agreed that daily-weighted averaging is not an appropriate option for Solar because the rule requires all numerical emission limitations to be the same, and Solar's coating lines apply multiple coatings of different coating categories. (Tr. at 8.) The second alternative, cross-line averaging, requires an operational change to pre-existing coating lines. Since Solar committed to reformulating its paints as a means to achieve compliance, the Agency states that requiring Solar to make an operational change for the five remaining non-compliant paints is not an effective or reasonable compliance alternative. (Rec. 9, Tr. at 8.) The Agency further explained that these options are not appropriate for Solar because Solar is seeking temporary, not permanent, relief. (Tr. at 8.)

Current and Future Compliance

Solar proposes to achieve compliance by continuing its history of voluntarily designing and purchasing new processes, products and equipment to reduce total VOM emissions at its Libertyville facility. Solar reports that it has, where feasible, replaced high VOM content adhesives and paints with lower VOM products or water-based products. (Pet. at 7.) Specifically, Solar has replaced approximately 98% of its paints to water-based products, and states that its paint supplier anticipates conversion of the remaining paints to be completed by the end of 1996. (*Id.* at 8.) Solar explains that the additional time requested in its petition for variance is needed for any unanticipated technical delays and to ensure that the water-based paints meet customer specifications. (*Id.*) At hearing, Solar stated it was confident that compliance with the coatings rule would be achieved prior to the Agency recommended variance termination date of May 22, 1997. (Tr. at 13, 20.)

During the term of its requested variance, Solar pledges to minimize the impact the variance would have on air quality by terminating use of VOM paints as soon as each water-based version becomes available. (Tr. at 24.) Solar anticipates that its use of VOM paints will decrease during the course of the requested variance, until only water-based products are employed. In addition, Solar will not purchase additional VOM-based paints; rather, it will only use the 154.25 gallons it has on hand. Solar also will keep records on the use of VOM-containing paints so that the one ton emissions limit is not exceeded. (Pet. at 8-9.) Finally, the Agency originally recommended that Solar conduct tests to verify VOM emissions during the term of the variance. (Rec. at 15.) However, Solar testified at hearing that, in consulting with New World Environmental Services, Inc., it discovered the cost of testing, \$4,900.00 to be excessive. (Tr. at 15-16, Pet. Exhibit #1.) As a result, the parties agreed to eliminate the testing requirement and instead require Solar to submit MSDS sheets and mathematical calculations of VOM emissions. (Tr. at 16.)

HARDSHIP

Solar claims that denial of its requested variance would constitute an arbitrary and unreasonable hardship because denial would preclude Solar from completing orders for its customers. An inability to fill orders would result in a loss of revenue from those orders, and

possibly result in a loss of future revenue if Solar's customers take their orders elsewhere. (Pet. at 9.)

The Agency agrees that denial of the requested variance would pose an arbitrary and unreasonable hardship. The Agency pointed out the stringent quality demands and rigorous approval criteria of Solar's customers to explain that Solar is limited to one paint supplier, and is dependent upon that supplier's paint reformulation abilities and schedule. One of the technical difficulties in reformulating interior automotive paints, the Agency explains, is that the color must match perfectly with the solvent base paint, and perform similarly. (Rec. at 8-9, Exhibit 2.) A further complication is that Solar cannot use existing compliance alternatives of daily-weighted averaging and cross-line averaging because its job-shop operations requires multiple parts changes and shift changes, and because Solar has not made any operational changes to its coating lines; rather, it has chosen to convert from solvent-based paints to water-based paints. (Rec. at 9.)

ENVIRONMENTAL IMPACT

Solar states that it will use only 154.25 gallons of the following in-stock non-compliant interior automotive coatings:

<u>Vendor No.</u>	<u>VOM Content (lbs/gal)</u>	<u>Gal. to Use</u>
1. 72271SF444	5.17	8.0
2. 72084SF444	5.19	15.0
3. 96072-W7E	4.86	20.0
4. 72081-B	5.04	80.0
5. 72234-W7E	4.85	20.0
6. 96000-W7E	4.87	11.25

(Pet. at 5.) Solar claims that if the variance is granted, it will emit less than one ton of VOM emissions over the period of the variance. Solar further asserts that the VOM emissions associated with the use of the non-compliant paint will not have a quantifiable impact on air quality in the Chicago severe ozone non-attainment area, where its facility is located. (Pet. at 6.)

The Agency disagrees, stating that Illinois cannot accept any setbacks in the effort to reduce VOM emissions as required by the Clean Air Act. (42 U.S.C. 7401 *et seq.*) To that end, the Agency is engaged in a massive effort to develop methods for reducing emissions in this area and to achieve attainment of the National Ambient Air Quality Standard (NAAQS) for ozone. Noting that during cold weather, VOM emissions have a minimal impact on ozone air quality, the Agency states that VOM emissions have a significant impact during the yearly ozone season of April through October. In addition, the Agency explains that the ozone problem in Chicago is largely attributable to numerous smaller sources that, when aggregated, add up to significant emissions. Therefore, the Agency explains, emissions from Solar's facility will contribute to total emissions in the Chicago severe ozone nonattainment area. (Rec. at 5.)

However, the Agency believes that the granting of the requested variance will not result in environmental or health effects substantially and significantly more adverse than the effects considered in the adoption of In the Matter of 15% ROP Plan Control Measures for VOM Emissions -- Part IV: Amendments to 35 Ill. Adm. Code Parts 211, 218 & 219 (April 20, 1995)

R94-21. Based on 1990 emissions inventory, the Agency stated at hearing that the total VOM emissions during each ozone season summer day are approximately 1,216 tons per day in the Chicago ozone non-attainment area. (Tr. at 34.) The actual increase in VOM emissions resulting from Solar's non-compliant paints will be less than 0.01 tons per day, which is less than 0.001% of total emissions in the Chicago ozone non-attainment area. (Id.) In addition, Solar is only seeking temporary relief from the emission limitations until the necessary non-compliant paints can be reformulated to water-based paints and become approved and available for use. (Rec. at 6.) Therefore, the Agency believes that the hardship resulting from a denial of the requested variance would outweigh any environmental or health impact. The Agency recommends that the requested variance be granted but only for one year, as opposed to the requested 18 months, so that emissions will not continue into the heart of the 1997 ozone season. (Pet. at 10-11, Tr. at 11.)

CONSISTENCY WITH FEDERAL LAW

The parties agree that granting the requested relief would not violate the Clean Air Act, as amended in 1990 (42 U.S.C. 7511a(b)(3)(B)(ii), and the regulations promulgated thereafter. The Agency reports that notice of Solar's petition for variance was published, and that the Board held a hearing in this matter on August 9, 1996. Therefore, the requirements for notice and opportunity for public participation were met. In addition, if the Board grants the requested variance, the Agency will submit it to the USEPA as a revision to the State Implementation Plan (SIP), thus satisfying the requirements of Section 110(a) of the Clean Air Act. The parties therefore contend that granting the requested relief would be consistent with federal law. (Pet. at 9, Rec. at 10.)

DISCUSSION

Based upon the record the Board finds that to require immediate compliance with the VOM limitations set forth at 35 Ill. Adm. Code 218.204(n)(1)(B)(i) would impose an arbitrary or unreasonable hardship on Solar. Solar has converted approximately 98% of its paints from solvent-based formulas to water-based formulas. The remaining solvent-based paints do not have water-based alternatives. Solar is requesting temporary relief from the automotive plastic parts coating rule to allow it to use 154.25 gallons of non-compliant paints until its paint supplier reformulates the paint, and its customers test and approve the water-based alternatives, a process which takes three to four months per color. (Tr. at 25-30.) Solar's customers have specific performance and color specifications for automotive interior paints, and Solar risks losing orders if it is denied this variance.

Solar agrees to limit VOM emissions to 0.67 ton during the term of its variance, and in fact anticipates emitting less since water-based versions presumably will become available during the variance. Solar will also send the Agency monthly reports of its daily usage, daily VOM content, MSDS sheets and correspondence from the paint supplier regarding progress of water-based reformulations. In addition, the Agency believes that the VOM emissions released from Solar's plant during the term of the variance will not result in environmental or health effects substantially and significantly more adverse than those considered in the adoption of emissions regulations in R94-21. Therefore, the Board finds that the hardship resulting from a denial of the requested variance outweighs any environmental impact from a grant of the variance.

The Board notes that, since the filing of this petition, Solar's paint supplier has reformulated one of the six paints included in the petition. Solar stated at hearing that once a

water-based version becomes available, the solvent-based paint is removed from operation, sealed in recovery drums and sent out for disposal by licensed waste haulers. (Tr. at 24.) Therefore, paint number 5, vendor number 72234-W7E, will not be included in this variance, and the total amount of non-compliant paints which Solar can use is limited to 134.25 gallons. In addition, the Board agrees with the parties that the term of this variance should end on May 22, 1997, prior to the onset of the 1997 Chicago ozone season. Finally, the Board will incorporate the parties' agreed change to the Agency recommendation which was introduced by motion at hearing. Specifically, in lieu of conducting expensive testing of its VOM emissions, Solar will be required to submit copies of MSDS sheets and a certification that no additional solvent or other VOM is added, or that if additional solvent is used, copies of calculations of solvents added and VOM content by batch.

This opinion constitutes the Board's findings of fact and conclusions of law.

ORDER

The Solar Corporation (Solar) is hereby granted a variance from 35 Ill. Adm. Code 218.204(n)(1)(B)(i) as that section applies to Solar's painting operations at its facility located at 100 Solar Drive, Libertyville, Lake County, Illinois. This variance is subject to the following conditions:

1. This variance shall terminate on the earlier of two dates: May 22, 1997 or when water-based interior automotive coatings are available and approved as substitutes for the coatings specified below.
2. Solar will use a total of approximately 134.25 gallons of the following in-stock, non-compliant interior automotive coatings:

<u>Vendor No.</u>	<u>VOM Content (lbs/gal)</u>	<u>Gal. to Use</u>
1. 72271SF444	5.17	8.0
2. 72084SF444	5.19	15.0
3. 96072-W7E	4.86	20.0
4. 72081-B	5.04	80.0
5. 96000-W7E	4.87	11.25

3. Solar shall send monthly status reports to the Agency to include the following information regarding the non-compliant interior automotive coatings:
 - a. Records of daily usage in lbs/gal for each non-compliant coating subject to this variance;
 - b. Records of daily VOM content in lbs/gal for each non-compliant coating subject to this variance;
 - c. Copies of MSDS sheets for non-compliant coatings used and a certification that no additional solvent or other VOM is added, or calculations of solvent added and other verifications of VOM content by batch;
 - d. Any non-compliant coatings that are the subject of this variance, for which approved water-based coatings have become available; and

- e. Any correspondence from the supplier or customer indicating pending delay in reformulating or approval of water-based versions of the coatings that are the subject of this variance.
- 4. Solar's use of non-compliant interior automotive coatings will be limited to the 134.25 gallons of solvent-based paints Solar has in stock. Solar will not be allowed to use any other non-compliant coatings under this variance.
- 5. Solar will be limited to a total of 0.67 tons of VOM emissions from these non-compliant coatings over a 12 month period beginning May 22, 1996.
- 6. Solar shall notify the Illinois Environmental Protection Agency (Agency) within 10 days after any non-compliant interior automotive coating subject to this variance is converted to a water-based coating and is approved and available to use.
- 7. All notifications to the Agency required hereunder shall be sent to:

Dave Kolaz, P.E.
Manager, Compliance & Systems Management Section
Division of Air Pollution Control
Illinois Environmental Protection Agency
P.O. Box 19276
Springfield, Illinois 62794-9276

IT IS SO ORDERED.

If Solar chooses to accept this variance subject to the above order, within forty-five days of the grant of the variance, Solar must execute and forward the attached certificate of acceptance and agreement to:

Sheila G. Kolbe
Division of Legal Counsel
Illinois Environmental Protection Agency
P.O. Box 19276
2200 Churchill Road
Springfield, Illinois 62794-9276

Once executed and received, that certificate of acceptance and agreement shall bind Solar to all terms and conditions of the granted variance. The 45-day period shall 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. The form of the certificate is as follows:

CERTIFICATION

I (We), _____, hereby accept and agree to be bound by all the terms of the Order of the Pollution Control Board in PCB 96-239 dated September 5, 1996.

Petitioner

Authorized Agent

Title

Date

Section 41 of the Environmental Protection Act (415 ILCS 5/41 (1994)) provides for the appeal of final Board orders within 35 days of the date of service of this order. The Rules of the Supreme Court of Illinois establish filing requirements. (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 ____ day of _____, 1996, by a vote of _____.

Dorothy M. Gunn, Clerk
Illinois Pollution Control Board