



### BACKGROUND

Petitioner, King-Seely Thermos Company, is a manufacturer and distributor of barbecue grills, water coolers and drinking fountains. The facility for which variance is being sought is located two miles east of the City of Freeport, in Stephenson County, Illinois. The nearest residences are located approximately 1/4 mile away. Petitioner's facility employs up to 1000 people in 467,000 sq. ft. of manufacturing plant. The specific activity for which variance is requested is the painting of product lines. Petitioner currently operates 8 paint lines including 16 paint booths and 4 ovens. The current system utilizes a wet paint process whereby the transfer of paint is accomplished using volatile organic materials. The facility currently discharges VOMs at a rate of 5.3 lb/gal., which is non-compliant with the new limitations, effective December 31, 1987. No citizen complaints are on record against this facility for solvent odors or other emissions from the painting operations. As part of its investigation IEPA conducted citizen interviews; no objections to the variance petition were recorded.

Petitioner states that the new paint system has been in the planning stages since the new emissions limitations were first promulgated. Petitioner states that it then immediately went to work evaluating its current operations; assessing alternatives; deciding upon and implementing a plan of full compliance. These claims are uncontroverted. Petitioner states rather than utilize stop-gap measures or move its operations [thereby engendering lay-offs] it has decided to revamp its operations, building an entirely new painting system at an estimated cost in excess of six million dollars.

### COMPLIANCE PLAN

The proposed compliance plan utilizes both wet and dry application processes. A dry paint process differs from a wet paint process in that the paint is transferred electrostatically, without the use of solvents containing VOMs as a transfer medium. The dry paint process will account for 57% of the proposed new system; the remaining 43% will be applied with a VOM compliant wet paint with final VOM emission levels less than 3.0 lb/gal. The proposed combined paint system is expected to result in a VOM emission rate of 1.84 lb/gal. This is well within the 3.0 lb/gal limitation.

The following is a detailed timetable for installation and operation of the new system:

8/3/87:	finalized building plans to contractor
8/7/87:	price quotation on finalized plans

8/12/87: building ordered  
10/1/87: building delivered  
10/22/87: building shell erected  
11/5/87: building available for installation of oven  
12/7/87: curing oven completed  
1/11/88: completion of all construction; begin debugging process  
6/1/88: commence full production with new system.

It should be noted that the Petition for Variance requests a variance until June 30, 1988 -- 30 days after projected full production status. This is explained as necessary to allow for debugging of the completed operation process. Petitioner has asked that an interim limitation of 5.3 lb/gal [Petitioner's current emission rate] be in effect during the period of the variance. However, Petitioner also states that beginning April 1988, when phase-in of the new combined painting system begins, emissions should begin to decrease significantly.

In its Petition for Variance, Petitioner explains its estimated project cost as follows:

Total building	\$970,000
Total building machinery and equipment	530,000
Total paint system machinery and equipment	4,000,000
Outside expenses	<u>511,000</u>
Total	\$6,011,000

#### COMPLIANCE ALTERNATIVES

In its Petition and at hearing, King-Seely identified several alternative means of compliance which it considered.

Petitioner considered combining new equipment with certain existing equipment. Although it was argued this approach would result in moderately lower capital costs, Petitioner determined that mere threshold compliance would require replacement of most of the existing equipment. Petitioner further states that such an approach is short sighted in that the compliance obtained would be minimal and might limit future growth and/or expansion possibilities.

Petitioner also considered combining its operations with those of another manufacturing facility. However, the alternative was deemed unacceptable owing to limited capacity, quality and operations losses and the possibility that such interdependence might place excessive controls and limits on production capabilities.

Petitioner also considered incinerating paint exhaust. This alternative, however, would result in significantly higher energy costs; excessive installation costs and no increased quality or improvement in operating costs.

Finally, Petitioner considered "outside sourcing" painted components. This would consist of sending component parts to a third party for painting, then reshipping the painted product back to King-Seely. Problems with this proposal included increased operating costs, reduced flexibility, quality control problems and substantial lay-offs of staff. Additionally, it was determined that no other nearby facility had sufficient capacity to accommodate King-Seely.

#### HARDSHIP AND ENVIRONMENTAL IMPACT

The emissions released from Petitioner's painting operations are not considered toxic in the concentrations in which they are released. Although the materials released from painting operations do have a slight solvent odor, no odor related complaints have been recorded. Additionally, Stephenson county has been designated as an area for which ambient air quality standards for VOCs have been attained. Granting of this requested variance will not greatly impact the air quality of Stephenson County and Petitioner's compliance program, if successful will greatly reduce the amount of VOCs emitted by this facility.

The Agency's recommendation, while urging approval of the variance request, criticized the petition for its use of cost estimates; complaining that Petitioner's estimated data made it more difficult for the Agency to determine the reasonableness of the claim of hardship. However, at hearing on December 11, 1987, Petitioner utilized the opportunity to address the Agency's criticisms. Petitioner's consultant, Owen Spannaus, an engineer with Ingersoll Engineering, Inc., explained Petitioner's analysis, explained the alternatives considered and explained certain cost features associated with the compliance project.

The Board finds that Petitioner has established that complying with the current regulations would impose an unreasonable or arbitrary hardship. The regulations were initially changed in 1985, but did not become effective until December 31, 1987. Petitioner, until the recent regulatory change, was in compliance with the regulations. Although

Petitioner's compliance plan urges that Petitioner be allowed to emit in excess of the new regulation, these excess emissions will be short lived and, ultimately, will be significantly less than the regulatory limit. Petitioner's request asks for a variance until June 30, 1988 to ensure debugging of the equipment and operation; however, there is a real chance that emissions may begin to be reduced as early as April, 1988.

Petitioner's emissions from painting operations are not considered dangerous in the concentrations in which they are being released. Additionally, Stephenson County is an attainment area; thus Petitioner will not be contributing to an ongoing and significant local problem. Any potential adverse environmental effects will be outweighed by the long run, lower emission levels achieved via Petitioner's compliance project.

#### CONCLUSION

Petitioner's request is that it be allowed to emit VOCs at its current level [5.3 lb/gal] until June 30, 1988, at which time emissions should be at or below 1.84 lb/gal owing to Petitioner's intergration of a new, dry paint process with the old, wet paint process. The wet painting process will be using compliant paints. King-Seely says that emissions may be reduced as early as April, 1988 if significant operational difficulties are not experienced. In view of the Agency's determination that emissions at these levels would not cause significant health risk or environmental damage, the Board finds that granting the requested variance would produce no significant health risk.

Petitioner's compliance plan is fair and reasonable. it would be unreasonable to force King-Seely to cancel or close its operations for the short time expected until compliance is achieved, especially since the anticipated result will be significantly reduced VOC emissions. Petitioner has been diligent in its pursuit of new, low emission technology. Additionally, the Agency notes that King-Seely has been cooperative with the Agency and can be expected to complete the project as planned.

This Opinion constitutes the Board's findings of facts and conclusions of law in this matter.

#### ORDER

King-Seely Thermos, Co., is hereby granted variance from 35 Ill. Adm. Code Section 215.204(j)(4), Emission Limitations for Manufacturing Plants Miscellaneous Metal Parts and Product Coating, subject to the following conditions:

- 1) Variance shall expire on June 30, 1988.

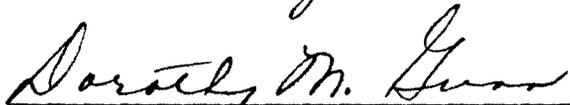
- 2) Petitioner shall build and construct a combined painting system to achieve compliance with the regulations at the expiration of this variance.
- 3) During the term of the variance, Peititioner's emission rates shall not exceed 5.3 lb/gal.
- 4) Petitioner shall prepare and send quarterly reports to the Agency during the period of the variance which describe and inform the Agency concerning Petitioner's progress in completing the compliance project described in the Variance Petition. These shall be sent to the following:

Mr. Dick Jennings  
Illinois Environmental Protection Agency  
5415 N. University  
Peoria, IL 61614

- 5) Petitioner shall obtain all required construction permits from the Agency prior to construction of any new painting operations.

IT IS SO ORDERED.

I, Dorothy M. Gunn, Clerk of the Illinois Pollution Control Board, hereby certify that the above Opinion and Order was adopted on the 4<sup>th</sup> day of February, 1988 by a vote of 7-0.

  
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Dorothy M. Gunn, Clerk  
Illinois Pollution Control Board