

ILLINOIS POLLUTION CONTROL BOARD  
August 9, 1990

LAWRENCE BROTHERS, INC., )  
 )  
 Petitioner, )  
 )  
 v. ) PCB 90-74  
 ) (Variance Extension)  
 ILLINOIS ENVIRONMENTAL )  
 PROTECTION AGENCY, )  
 )  
 Respondent. )

OPINION AND ORDER OF THE BOARD (by J.D. Dumelle):

This matter comes before the Board on a petition for an extension of a variance filed by Lawrence Brothers, Inc. ("Lawrence"). Lawrence initially filed a petition for a variance in PCB 87-180 and the Board subsequently granted that petition subject to numerous conditions. In that variance, the Board ordered Lawrence to be in compliance by October 20, 1990. Lawrence now petitions the Board for an extension until April 1, 1992. Both the initial variance as well as the current petition seek relief from the requirements of 35 Ill. Adm. Code 215.204(j), Miscellaneous Metal Parts and Products Coating, as it relates to clear coatings.

The specifics of Lawrence's operation is well documented in the Board's earlier ruling (PCB 87-180, October 22, 1988) and is hereby incorporated by reference. Because, however, the issues that preclude Lawrence's compliance remain the same, a brief explanation is due. Lawrence Operates a plant located in Rock Falls, Illinois, Whiteside County, which is an attainment area. Lawrence manufactures a variety of steel door hinges - some of which are brass plated and then clear lacquered. In the process thereof, these door hinges are dipped and treated with a solvent-based lacquer before they are dried with the assistance of heat. As a result, Section 215.204(j) is violated in that this process uses more than the allowable limit of Volatile Organic Compounds (VOC) per gallon of solvent.

The crux of Lawrence's problem lies in the fact that to date, it has been unable to secure a material which would comport with the aforementioned regulations and simultaneously maintain the standards its customers demand.<sup>1</sup> The solvent which Lawrence

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<sup>1</sup>The record indicates that Lawrence Brothers competes with companies in two other states as well as industry abroad. Lawrence alleges and the Agency does not dispute that its competitors are not subject to the rigid laws applicable in

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currently uses will withstand a 5% salt spray test for a period of 75 hours without corroding or fading. Anything less will necessarily detract from the products' value. From 1987 until the present, Lawrence has tested a variety of alternative products in accordance with the original variance, but has yet to procure a viable substitute which will withstand the demands of its particular market.

The original variance set up a timeframe for testing, reporting and ultimately, compliance. Lawrence adhered to every condition with the exception of compliance. Yet the lack of achievement in this proceeding was not due to a lack of diligence. Lawrence has tested over fifty separate products in its efforts to comply with the pertinent regulations. Moreover, it has enlisted the aid of a private consultant in addition to an independent study sanctioned by the University of Illinois Engineering Department in order to survey its options. Neither entity was able to formulate a viable compliance plan for Lawrence short of unreasonable expense.

At the same time, Lawrence's research and development has not been without value. Lawrence has investigated an alternative means of control based on an entirely new and different technique. This alternative allows the substitution of a zinc coating for existing brass coating operations followed by application of a chromate coloring and a water based lacquer. The record indicates that this new technology will not only bring Lawrence's VOC output into compliance, but will also significantly reduce the toxicity of its water wastestream in that the process change proposed would altogether alleviate Lawrence's use of cyanide. Not surprisingly, then, Lawrence is eager to implement this change. Yet the zinc coating process - although promising - contains a monetary setback in that it is more expensive to use. Lawrence is currently seeking to reduce these costs<sup>2</sup> and, at the same time, is consulting with its clients to see if its customer base will incur the incremental markups inherent in the change.

Another alternative for Lawrence would be to install an afterburner which would incinerate the solvent emissions after the coatings process had taken place. While this would reduce VOC emissions, it would be less ideal than alternative coating for a variety of reasons. For example, the initial outlay for an

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Illinois and therefore are free to continue to employ a solvent based lacquer.

<sup>2</sup>In the private consultant's letter to Lawrence, Mr. Gruenberg stated, "I firmly believe that the coatings industry, in the future, will be able to produce a water base polymeric coating that can be applied and stripped in your operation, that will meet all of their requirements." Petitioner's Exhibit C.

incinerator would be \$81,815 with an estimated annual operating cost of \$27,324. In this regard, the University of Illinois study suggested that the use of heat exchangers connecting the afterburner to the ovens utilized to dry the hinges would, in the long-term, pay for itself. Yet the cost of implementing such a plan would be \$203,000 in addition to the aforementioned costs.

Equally important, however, the incinerator proposal is reactive whereas the alternative coating solution is preventative. While an incineration unit would assist Lawrence in complying with Section 215.204(j), the long-term environmental impact would not be nearly as great if Lawrence is able to employ a less volatile organic method of coating its hinges in order to avoid fading and/or corroding. If, for example, the Board allows Lawrence more time to develop a zinc based coating in conjunction with a water based solvent, the implementation of an incinerator would be averted. Moreover, Lawrence's air emissions as well as its water wastestream would be much less damaging environmentally.

Finally, Lawrence meets all of the criteria necessary to obtain a variance. Petitioner alleges and the Agency agrees that to deny Lawrence a variance at this juncture would constitute an arbitrary or unreasonable hardship. The Board concurs with this assessment and finds that for Lawrence to comply with Section 214.204(j) at this juncture would impose an arbitrary or unreasonable hardship pursuant to Section 35(a) of the Act. Insofar as Lawrence demonstrating that it has progressed satisfactorily in accordance with Section 36(b) of the Act, the record contains ample, undisputed testimony that Lawrence has been diligent in its pursuit of a feasible compliance plan. Further, both the Agency and Lawrence contend that the issuance of a variance in this case would be consistent with the Clean Air Act. Due to the fact that Lawrence's operation is located in an attainment area coupled with the fact that the nearest monitoring station has registered no ozone violations, the environmental effects are relatively negligible.

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

#### ORDER

Accordingly, for the reasons stated herein, Lawrence Brothers' Inc.'s Petition for Extension of Variance from Section 215.204(g) until April 1, 1992 is hereby granted subject to the following conditions:

1. Lawrence Brothers shall determine on or before April 9, 1991:
  - a. the market reception of the zinc coating process;

- b. whether there exists a water based coating which meets the requirements of Section 215.204(j) and Lawrence Brothers' corrosion resistance requirements.

2. Lawrence Brothers shall submit to the Agency any information pertaining to conditions 1.a. and 1.b. within ten (10) days as such becomes available to Lawrence Brothers, but in no case later than April 9, 1991.

3. At any time during the extended variance period, the Agency may identify new, clear water based compliant coatings, up to a maximum of ten (10) in a twelve (12) month period for Lawrence Brothers to test. After the Agency notifies Lawrence Brothers of such coatings, Lawrence Brothers shall test the Agency identified coatings to determine whether the coatings afford compliance and the degree to which such coatings meet Lawrence Brothers corrosion resistance specifications. These tests shall be completed and a report made to the Agency as quickly as reasonably possible after notice by the Agency to Lawrence Brothers of the coating's identity.

4. Lawrence Brothers, upon ascertaining to a reasonable degree of certainty that the zinc coating process produces product which, including the increased costs, is acceptable on the market, shall elect to utilize this zinc coating process in order to achieve compliance.

5. Lawrence Brothers, upon ascertaining to a reasonable degree of certainty that the zinc coating process produces a product which is not acceptable on the market, shall proceed with:

- a. utilization of water based coating meeting the requirements of Section 215.204(j) and Lawrence Brothers corrosion resistance specifications. This coating must have been identified and presented to the Agency prior to April 9, 1991; or,
- b. installation of an afterburner.

6. Lawrence Brothers shall verify with documentation to the Agency that the elected compliance alternative is installed and operating.

7. Lawrence Brothers shall, in addition to the above conditions, submit to the Agency quarterly compliance progress reports.

8. Lawrence Brothers agrees to comply with these conditions upon grant of the variance extension.

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 9<sup>th</sup> day of August, 1990 by a vote of 6-0.



Dorothy M. Gunn, Clerk  
Illinois Pollution Control Board