ILLINOIS POLLUTION CONTROL BOARD
January 10, 1985

CHRYSLER CORPORATION,	)	
	)	
Petitioner,	)	
	)	
v.	)	PCB 84-127
	)	
ILLINOIS ENVIRONMENTAL PROTECTION AGENCY,	)	
	)	
Respondent.	)	

MS. JACQUELINE A. SAVAGE APPEARED FOR PETITIONER;

MS. BOBELLA GLATZ, ATTORNEY-AT-LAW, APPEARED FOR RESPONDENT.

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

This matter comes before the Board on a variance petition filed by Chrysler Corporation ("Chrysler") on August 20, 1984. Chrysler seeks a variance from the topcoat material requirements of 35 Ill. Adm. Code 215.204(a)(2) for a period of three years until August 31, 1987. Section 215.204(a)(2) provides volatile organic material limitations for coating materials at automobile plants in Boone County. The Illinois Environmental Protection Agency ("Agency") initially objected to the variance on September 7, 1984. The Agency subsequently supported grant of variance subject to conditions in their recommendation and amended recommendation filed October 23, 1984, and November 13, 1984, respectively. Hearing was held November 14, 1984, in Belvidere, Illinois. No public comments were received.

Chyrsler owns and operates an automobile assembly plant in Boone County, known as the Belvidere Assembly Plant. The plant occupies 248.86 acres near the Northwest Tollway I-90, approximately two miles southwest of Belvidere. Belvidere has a population of 15,176. The nearest resident is located approximately one half mile south, southeast of the main production area (Rec. p. 5). The plant currently employs approximately 4,200 people and produces Omni and Horizon passenger cars (Pet. p. 2).

Volatile organic compounds (VOCs) are emitted from the topcoat operations as well as from other coating operations at the plant. Chrysler applies topcoats utilizing low voltage electrostatic spray (LVES) equipment. Chrysler met the RACT limit of 2.8 lbs. VOC/gallon water-borne coatings applied with a 30% transfer efficiency by installing LVES equipment by December 31, 1979. The overall transfer efficiency is approximately 55% for topcoat operations (Pet. p. 3-4). Utilizing production

figures supplied by Chrysler, the Agency has calculated 1984 year emissions to be 870.7 tons VOC at an average of 4.45 pounds VOC per gallon for topcoating. Using similar techniques for year 1985, emissions are predicted to be approximately 800.0 tons (Rec. p. 4-5). Chrysler does not operate any VOC control equipment, such as afterburners, at this facility.

Chrysler's paint suppliers have been unable to provide production-ready high solids topcoats at an acceptable quality level before December 31, 1984 (Pet. p. 4-5). The requested variance would allow the continued use of current topcoat materials containing 4.2 pounds of VOC/gallon of paint applied by LVES equipment with an approximate 55% transfer efficiency. The variance would allow Chrysler to maintain a competitive position while providing the time necessary for further development of innovative high solid topcoat materials of acceptable quality and appearance. Chrysler asserts that the quality and appearance of automobile topcoats are an extremely important factor in maintaining a competitive position in the market place. Foreign competitors are not burdened with RACT requirements and have developed durable and glossy low solid topcoats. Domestic paint suppliers are in the process of developing high solid coatings that have comparable appearance and durability (Pet. p. 5).

Chrysler, in cooperation with its paint and equipment suppliers, has been directing its compliance efforts towards the successful electrostatic application of high solids topcoats. Chrysler has expended substantial manpower and economic resources in this area (Pet. p. 7). Chrysler believes that this method is the most cost-effective way to achieve compliance. To this end, Chrysler is planning to install High Voltage Electrostatic Spray (HVES) equipment in 1986. Current spray booth design and layout will not permit immediate installation of HVES equipment without major facility reconstruction (Pet. p. 7). The Belvidere plant is being considered as a site for the introduction of a new product line in 1986, which will provide the necessary planned downtime for the installation and modification required for the HVES equipment. HVES equipment can effectively apply high solid coatings in compliance with the December 31, 1986 RACT requirements of 65% transfer efficiency (Pet. p. 7). The only alternative to this approach is through add-on control equipment, such as afterburners, that would burn natural gas and become obsolete with the full introduction of practical high solids topcoats (Pet. p. 7).

The environmental impact of granting variance appears to be negligible and in the long run, compliance through reformulation is a sounder approach than afterburners. The variance would permit Chrysler to continue present operation until the planned retooling of the facility in 1986. The environmental harm during this relatively short period will be minimal (Rec. p. 6). The only impacts during the requested variance period might be ozone

formation, visibility problems and odors. Boone County is an attainment area for all major pollutants and no ambient violations or citizen complaints have been registered in the recent past (Rec. p. 5-6). VOC emissions would not be expected to impact any attainment area. The Board notes, however, that VOC may be transported 100 miles or more and this could affect the Chicago non-attainment area.

In addition to the installation of HVES equipment in 1986, Chrysler plans to ultimately comply with Board regulations through: 1) continued development, evaluation and testing of high solids topcoats, 2) introduction of high solids coatings into production as soon as these materials are reasonably available, 3) continued research into other methods of reducing VOC emissions, 4) submital to the Agency of a more detailed compliance plan as it develops and 5) submittal of evidence of reasonable further progress towards compliance.

Chrysler has in the past diligently sought means to reduce its VOC emissions at the Belvidere Assembly Plant. In 1975, Chrysler reformulated its coatings to nonphotochemical solvents and achieved compliance with Rule 205(f) (Rec. p. 3). Recently, Chrysler converted its prime coat and prime surface coating operations to a new "Uniprime" system which reduced emissions approximately 130 tons in excess of RACT requirements (R. 7). There is no reason to believe that Chrysler's conduct in the future will be any less diligent than in the past.

The Board will grant variance from §214.204(a)(2) until August 31, 1987, subject to conditions. This three year period will allow Chrysler to install HVES equipment as planned in 1986 and to develop and refine high solids topcoat material application. Denial of the variance would cause an arbitrary and unreasonable economic hardship when balanced with the minimal predicted environmental harm. Chyrsler is moving diligently towards ultimate compliance and requiring retrofit of incinerators or the immediate installation of HVES equipment would be unreasonable in these circumstances. The Board will impose interim emission limitations which Chrysler and the Agency have agreed upon at hearing as being achievable and protective of air quality (R. 4-6).

In order to avoid permitting problems for the Agency and Chrysler in 1987, because intermediate requirements found in the Board note in 215.204(a)(2) were not met, the Agency requests that the Board state that the Board note is being changed for purposes of this variance only to read as follows:

> The coat limitation shall not apply if by August 31, 1984 a limitation of 0.52 kg/l (4.3 lb/gal) is achieved and the top coat is applied with a transfer efficiency of not less than 55%, if by December 31, 1986, the same top coat is applied with a transfer efficiency of not less than 65%, and if by

August 31, 1987 the top coat shall meet a limitation of 0.43 kg/l (3.6 lb/gal) at a transfer efficiency of 65%. If two top coats are used the above limits apply to the volume average.

The Board shall grant this request in the interests of administrative efficiency.

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

ORDER

The Chrysler Corporation is hereby granted a variance from 35 Ill. Adm. Code 215.204(a)(2) for its Belvidere Assembly Plant, subject to the following conditions:

1. This variance shall be in effect from January 1, 1985 to August 31, 1987.

2. Chrysler shall meet interim emission specifications as follows:

	Coating Materials				
	Basecost		Clearcoat		Transfer Efficiency %
	(lb./gal) % Solids		(lb./gal) % Solids		
Date	Maximum	*Minimum*	Maximum	Minimum	Minimum
8/31/84	4.3	38	3.6	46	55
12/31/86	4.3	38	3.6	46	65
8/31/87	3.7	48	3.4	54	65

*Average of all colors.

3. For the term and purposes of this variance only, the Board note in 35 Ill. Adm. Code 215.204(a)(2) shall be replaced by the following:

The coat limitation shall not apply if by August 31, 1984 limitation of 0.52 kg/l (4.3 lb/gal) is achieved and the top coat is applied with a transfer efficiency of not less than 55%, if by December 31, 1986, the same top coat is applied with a transfer efficiency of not less than 65%, and if by August 31, 1987 the top coat shall meet a limitation of 0.43 kg/l (3.6 lb/gal) at a transfer efficiency of 65%. If two top coats are used the above limits apply to the volume average.

4. Chrysler shall begin use of any high solids basecoat materials which become available prior to the dates specified above in Item 1.

5. Chrysler shall continue with development, evaluating and testing of high solids basecoat/clearcoat materials and shall submit quarterly reports summarizing its progress in development, evaluation and testing of these materials. The reports shall be submitted to the following address within 15 days of the end of each quarter, beginning January 15, 1985. The reports, beginning January 15, 1986, shall include progress on the installation of a High Voltage Electrostatic Spray, and shall be mailed to:

    Control Program Coordinator
    Division of Air Pollution Control
    Illinois Environmental Protection Agency
    2200 Churchill Road
    Springfield, Illinois 62706

6. Chrysler shall continue to study methods of reducing other sources of volatile organic material emissions, and monitor methods for reducing such emissions. A summary of its progress in investigation of such methods shall be included in the quarterly reports as described above in Item 3.

7. Chrysler shall obtain construction permits for the new surface coating operations before it begins its plant retooling.

8. Chrysler will operate all other sources in compliance with 35 Ill. Adm. Code 215.202(A)(2).

9. Chrysler shall provide the Illinois Environmental Protection Agency with a detailed plan illustrating how Chrysler will comply with the top coat requirements in 35 Ill. Adm. Code 215.204(a)(2) by March 31, 1987.

10. Within 45 days of the date of this Order, Chrysler shall execute a Certificate of Acceptance and Agreement to be bound to all terms and conditions of this variance. Said Certification shall be submitted to the Agency at 2200 Churchill Road, Springfield, Illinois 62706. The 45-day period shall be held in abeyance during any period that this matter is being appealed. The form of said Certification shall be as follows:

CERTIFICATION

I, (We) _____, hereby accept and agree to be bound by all terms and conditions of the Order of the Pollution Control Board in PCB 84-127, January 10, 1985.

_____
Petitioner

_____
Authorized Agent

_____
Title

_____
Date

Board Member Bill Forcade concurred.

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 10th day of January, 1985 by a vote of 5-0.

Dorothy M. Gunn
Dorothy M. Gunn, Clerk
Illinois Pollution Control Board