

ILLINOIS POLLUTION CONTROL BOARD
October 12, 1984

IN RE: CORRECTION OF)
35 ILL. ADM. CODE) R83-36
215.204(a)(1))

PROPOSED RULE. FIRST NOTICE

OPINION AND ORDER OF THE BOARD (by B. Forcade):

On December 2, 1983, Ford Motor Company ("Ford") filed a petition, with over 200 supporting signatures, seeking to have the Board amend 35 Ill. Adm. Code 215.204(a)(1). That regulation limits volatile organic material emissions from coatings lines at automobile or light duty truck manufacturing plants in Cook County. This regulation, which was formerly Rule 205 (n)(1)(A) of Chapter 2: Air Pollution, was adopted by the Board on August 23, 1979, in proceeding R78-3,4.

On December 23, 1983, the Illinois Environmental Protection Agency ("Agency") filed a motion to dismiss this rulemaking claiming that the Board had retained jurisdiction in R78-3,4, and that the relief Ford was requesting could be addressed with a clarifying statement in the prior rulemaking. On January 3, 1984, Ford responded to the Agency's motion to dismiss, stating in essence, that the mechanism for the change (clarifying statement in R78-3,4, or new regulation) was not important so long as the substance of the requested change was properly evaluated by this Board. The Board, by Order of October 18, 1979, vacated its decision to retain jurisdiction in R78-3,4. Since the Board no longer has jurisdiction in R78-3,4, the Agency's motion to dismiss is denied.

On March 16, 1984, Ford moved to schedule hearings promptly in this matter. The Board held two hearings on May 24, 1984; the morning hearing was held in Chicago, the afternoon hearing was held in Bolingbrook. On June 4, 1984, the Department of Energy and Natural Resources ("DENR") made a finding that an Economic Impact Statement was not necessary in this proceeding. On July 18, 1984, the Economic and Technical Advisory Committee concurred with DENR's finding. The public comment period was closed on June 29, 1984, by Hearing Officer Order.

In a related matter, Ford filed on August 4, 1983, a petition seeking in part a variance from the same regulation which it now petitions to modify. On April 27, 1984, and May 29, 1984, the Board granted Ford a variance from the applicable regulation, pending final Board action in this matter.

A brief overview will simplify the subsequent regulatory discussion. In an effort to control the emission of materials that may lead to ozone formation, the Board has adopted several regulations. In R78-3,4, 35 PCB 246 (August 23, 1979), the Board adopted emission limitations that apply to, inter alia, coating lines for automobile manufacturers and require installation of reasonably available control technology ("RACT"). Those limitations are expressed in pounds of volatile organic material per gallon of coating, excluding water. Water is excluded because it is not a VOM. In developing those limitations, the Board relied in part on concepts, data, and assumptions contained in United States Environmental Protection Act publications called control technique guidelines ("CTG's")*. One such concept is transfer efficiency which is the ratio of the amount of coating solids transferred onto the surface of a part or product to the total amount of coating solids used. Ford and the Agency assert that the original CTG presumed a transfer efficiency of 40% and that this Board relied on that transfer efficiency in establishing the relevant regulation. Ford and the Agency further assert that a 40% transfer efficiency is incorrect, that the correct transfer efficiency is 30%, and that USEPA has admitted the error. Ford has petitioned for this regulatory change to bring the Board's regulation into conformity with actual practice in the industry and existing USEPA policy.

The existing regulation provides as follows:

Section 215.204 Emission Limitations for Manufacturing Plants

No owner or operator of a coating line shall cause or allow the emission of volatile organic material to exceed the following limitations on coating materials, excluding water, delivered to the coating applicator:

a) Automobile or Light Duty Truck Manufacturing Plants

1) In Cook County	kg/l	(lb/gal)
Prime coat	0.14	(1.2)
Prime surfacer coat	0.34	(2.8)

(Board Note: The prime surfacer coat limitation shall not apply if by December 31, 1982 a limitation of 0.38 kg/l (3.2 lb/gal) is achieved and the prime surfacer coat is applied with a transfer efficiency of not less than 55 percent.)

Top coat	0.34	(2.8)
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* The CTG at issue here is USEPA, OAQPS Guidelines, Control of Volatile Organic Emissions From Existing Stationary Sources -Volume II: Surface Coating of Cans, Coils, Paper, Fabrics, Automobiles, And Light-Duty Trucks at iv and vii (EPA-450/2 77-008) (OAQPS No. 1.2-073) May 1977) (hereinafter "CTG").

(Board Note: The limitation shall not apply if by December 31, 1985 a limitation of 0.43 kg/l (3.6 lb/gal) is achieved and the top coat is applied with a transfer efficiency of not less than 65%.)

Final repair coat 0.58 (4.8)

(Board Note: The limitation shall not apply until December 31, 1985.)

It appears that the Ford plant in Chicago is the only facility subject to 35 Ill. Adm. Code 215.204(a)(1). At the Ford facility vehicle bodies first receive a prime coat by an electrocoat painting process. The prime coating operation is not at issue here. After baking the prime coated vehicles are conveyed to the prime surfacer operation and then to the top coat operation. These two operations are at issue here.

The prime surfacer coat is applied to the vehicles using hand held conventional (non-electrostatic) and high voltage automatic application (spray) equipment. This coating improves surface appearance and corrosion protection. The vehicle is then conveyed to a bake oven. After the oven the vehicle is conveyed to the topcoat line where enamel is applied in a spray booth by hand held conventional and electrostatic spray guns. A second color may be added later for tutone vehicles (Stip. Facts, ¶6-13).

Obviously, if more of the sprayed solids remain on the vehicle (a higher transfer efficiency), then less material is needed per vehicle. Thus, the VOM content of the material and the transfer efficiency are key variables in determining overall VOM emissions.

For the limitation of concern here, prime surfacer coat and top coat, it is obvious that the Board placed heavy reliance on the CTG and adopted the CTG limitation of 2.8 lbs VOM/gallon (R78-3,4, August 23, 1979, 35 PCB at 255, 258). However, the Board did not specifically articulate the transfer efficiency that applied to that limitation in either the regulation or the opinion. Likewise, the USEPA CTG does not articulate a specific transfer efficiency for the 2.8 lbs VOM/gallon limitation.

In 1979, USEPA circulated a memorandum stating some past confusion regarding the appropriate transfer efficiency and concluded that a 30% transfer efficiency was appropriate for 2.8 lbs VOM/gallon (Stip. Facts, Ex. 6). A 1981 policy statement by USEPA in the Federal Register stated that 30% transfer efficiency was acceptable for 2.8 lbs VOM/gallon (Stip. Facts, Ex. 8). Also, 40 CFR 60.393 (Performance Tests and Compliance Provisions) provides for a transfer efficiency of 30% (Stip. Facts, Ex. 7). These determinations by USEPA were based on extensive review of what transfer efficiencies were in fact achievable for the automotive industry.

Whatever confusion or mistakes of fact that may have occurred in the past, the Board may now rely on the documentation in the record that 30% is the appropriate transfer efficiency for the 2.8 lbs VOM/gallon limitation. Accordingly, the Board will modify the regulation to reflect the appropriate transfer efficiency.

ORDER

35 Ill. Adm. Code 215.204(a)(1) is amended as follows:

Section 215.204 Emission Limitations for
 Manufacturing Plants

No owner or operator of a coating line shall cause or allow the emission of volatile organic material to exceed the following limitations on coating materials, excluding water, delivered to the coating applicator:

a) Automobile or Light Duty Truck Manufacturing Plants

1)	In Cook County	kg/l	((lb/gal))
	Prime coat	0.14	(1.2)
	Prime surfacer coat	0.34	(2.8)

~~Board-Note:--The-prime-surfacer-coat-limitation shall-not-apply-if-by-December-31-1982-a limitation-of-0.38-kg/l-(3.2-lb/gal)-is-achieved and-the-prime-surfacer-coat-is-applied-with-a transfer-efficiency-of-not-less-than-55-percent.)~~

(Board Note: The prime surfacer coat limitation is based upon a transfer efficiency of 30 percent. The prime surfacer coat limitation shall not apply until December 31, 1982.)

Top coat	0.34	(2.8)
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~~(Board-Note:--The-limitation-shall-not-apply-if by-December-31-1985-a-limitation-of-0.43-kg/l (3.6-lb/gal)-is-achieved-and-the-top-coat-is applied-with-a-transfer-efficiency-of-not-less than-65-percent.)~~

(Board Note: The limitation is based upon a transfer efficiency of 30 percent. The top coat limitation shall not apply until December 31, 1985.)

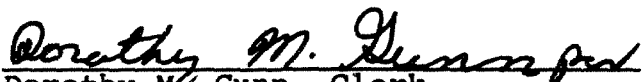
Final repair coat 0.58 (4.8)

(Board Note: The limitation shall not apply
until December 31, 1985

35 Ill. Adm. Code 215.204(a)(1) is directed to First Notice.

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 12th day of October, 1984 by a vote of 6-0.


Dorothy M. Gunn, Clerk
Illinois Pollution Control Board