ILLINOIS POLLUTION CONTROL BOARD
May 5, 1983

GEORGIA-PACIFIC CORPORATION, Petitioner,	)	
v.	)	PCB 82-142
ILLINOIS ENVIRONMENTAL PROTECTION AGENCY, Respondent.	)	

BEVERLY V. GHOLSON, APPEARED ON BEHALF OF GEORGIA-PACIFIC CORPORATION.
PETER E. ORLINSKY, APPEARED ON BEHALF OF THE ILLINOIS ENVIRONMENTAL PROTECTION AGENCY.

OPINION AND ORDER OF THE BOARD (by W.J. Nega):

This matter comes before the Board upon a December 14, 1982 petition for variance filed by the Georgia-Pacific Corporation (Company); as amended March 7, 1983. The Company has requested a two year variance from Rule 205(n)(1)(C) of Chapter 2: Air Pollution Regulations (Chapter 2) to allow it to delay compliance with the emission limitation for volatile organic compounds (VOCs) discharged from its paper coating lines. On December 14, 1982, Beverly V. Gholson, an attorney licensed in Georgia but not in Illinois, filed a Motion to Appear before the Board on behalf of the Company, which was granted on December 16, 1982. On January 7, 1983, a letter of objection to the requested variance was filed by Mr. and Mrs. Charles Mitchell who live near the Petitioner's plant. On January 24, 1983, the Illinois Environmental Protection Agency (Agency) filed a recommendation that the variance be granted until December 31, 1984, subject to certain conditions. A hearing was held on March 16, 1983.

The Company owns a printing plant, originally established in 1901, which is located at 201 West 6th Street in Lockport, Will County, Illinois in a mixed residential and industrial area. The plant, which is between the Illinois & Michigan Canal and the Illinois Central & Gulf Railroad right-of-way, is located along a highly industrialized corridor near both a Texaco and Union Oil refinery. The nearest residents live about one block south of the Petitioner's facility. The Company's printing plant, which manufactures multi-colored paper labels used primarily for canned food products, presently employs 16 full-time salaried employees and 103 hourly employees and produces revenues of over $13 million annually. Included in its Lockport facility are two 35-year old Christensen varnishers which are used to apply a high-gloss protective varnish coating on the

printed labels to give the labels protection from the wear and tear, rubbing, and scratching encountered in the shipping and handling of canned goods.

The varnish coating utilized by the Petitioner contains VOCs which are emitted into the atmosphere through 5 separate stacks located on the roof of the Company's main building. Rule 205(j) of Chapter 2 requires that paper coating operations must be in compliance wtih Rule 205(n)(1)(C) of Chapter 2 by December 31, 1982. Rule 205(n)(1)(C) of Chapter 2 limits VOC emissions to 2.9 lb/gal.

In 1982, the Company used an estimated 12,600 gallons of varnish and 9,666 gallons of apcolene (i.e., a thinner) in its protective varnish coating. The average VOC content of this protective coating was 4.99 lb/gal. Accordingly, VOC emissions in 1982 from the two Christensen varnishers were 55.6 tons. If Rule 205(n)(1)(C) of Chapter 2 had been in effect in 1982, the Company's VOC emissions would have been limited to 32.3 tons.

The Petitioner has indicated that it has been unable to meet the requisite compliance date because "at present, technology does not exist for low solvent (high solids) and/or water-based coatings" which will emit lower levels of volatile organic materials and can be utilized on the Christensen varnishers. However, the Company has been diligently working with its suppliers to develop an appropriate reformulation of its varnish coating to a high solids or water-based coating which will result in a product acceptable to its customers.

The Agency believes that the necessary reduction in VOC emissions can be achieved through the proposed reformulation plan. Past efforts to achieve compliance include numerous trial runs of various reformulated coatings which have, to date, proven unsatisfactory as substitute coatings during extensive tests. Alternate methods of meeting the emission limit which were investigated by the Company include the possible installation of a catalytic fume incinerator or carbon adsorption system.

The most economical of the various available emission control systems was determined to be catalytic fume incineration. However, the cost of a catalytic incinerator unit would be approximately $503,000, with an annual operating cost of $80,000, and the overall efficiency of the capture and control system would only be 55% to 60% due to the questionable efficiency of the fume capture system on the 35-year old Christensen varnishers. Additionally, it is likely that the roof of the building would not be able to support the weight of such an emission control device and extensive, expensive ducting would be required which would significantly increase the initial capital cost.

The City of Lockport, which has a population of approximately 10,000 people, submitted a letter to the Agency on January 6, 1983 which stated that it does not object to the Petitioner's variance request provided that the Company: (1) continue to conduct trial runs to find an acceptable low solvent paper varnish coating and (2) conduct air monitoring tests in the immediate vicinity of their discharge point to ascertain the ozone levels in that area. (See: Ex. A). At the hearing, Mr. Frank Mitchell (the son of, and spokesman for, Mr. & Mrs. Charles Mitchell) directed various questions to Mr. Keith M. Bentley, the Company's senior environmental engineer. Mr. Bentley testified that the Company is "going to meet the standard by changing our formulations for the varnishes we're going to put on. Those varnishes are not available right now. The suppliers are working on it...Alternate emission control technologies are just prohibitively expensive...The overall emission reductions we're going to receive will be at least equivalent to what we would get with the add on control equipment. It will probably be greater." (R. 11-12). Mr. Bentley also indicated that the Company performed at least 9 trial runs in the last year to test various varnish reformulations and was firmly committed to further testing. (R. 13-14).

In its petition, the Company has pledged that when appropriate test varnishes are developed, it will perform at least four to five trial runs on its equipment per year at its own expense. Each trial run costs the Company about $1,500.00 including time, labor and materials. After such testing, the Petitioner will submit periodic test reports to the Agency for review.

Concerning ozone, as aforementioned, the Company's printing plant is located in a highly industrialized corridor area in Lockport and is about 1 block away from the nearest residents. The closest ozone monitoring station is located about 1½ miles south of the facility. The 1981 Illinois Annual Air Quality Report on ozone levels in the Lockport area indicates that only 28 days were reported in which the ozone level exceeded 0.08 ppm; 0.11 ppm was the highest level reported; and in no cases was the 0.12 ppm ozone standard exceeded. The nearest ozone monitoring station has shown that the ambient ozone standards have not been exceeded in Will County for the last two years, and the Agency has proposed to redesignate the area as an ozone attainment area. VOCs contribute to the formation of ozone. High levels of ozone may have adverse health effects, particularly on the elderly and on individuals with cardiac or respiratory problems. However, the Agency believes that the extension of the compliance deadline sought by the Petitioner should not cause any increased adverse health effects. Thus, the Agency further believes that it is unlikely that the Petitioner's discharges would cause or contribute to a violation of the ozone standard and its episode action plan should provide sufficient safeguards during periods of high ozone concentration.

The Board notes that the VOC emission limitations adopted in 1979 in R78-3,-4 were intended to be "technology forcing" and it was originally contemplated that the more restrictive standards that came into effect in 1982 might necessitate some facilities to seek variances until the standards could be met. It would be unreasonable for the Board to impose substantial costs upon the Petitioner to attain immediate compliance when there is a substantial probability of new technology being developed during the variance period which would allow compliance to be attained at a much lower cost, since any increase in health risks would be negligible.

The Board will condition this variance upon the use of coating materials which have a VOC content less than or equal to the presently used materials. A preferable technique would be to impose a limitation upon the total emissions of VOCs as well. Unfortunately, the information presented in the record is insufficient to establish such a limitation. The only figures given are for the 1981 and 1982 emission levels. No indication is given as to potential, or even expected, levels, despite the fact that an increase in production (as may be expected in a period of economic recovery) will result in increased emissions. In the future, such petitions should include historical monthly emission levels (for the last five years, especially during the ozone season of May to October, if possible), projections of emission levels during the period of variance, and potential emissions based upon production capacity.

Therefore, the Board finds that denial of the requested variance would cause an arbitrary or unreasonable hardship upon the Petitioner and concludes that variance should be granted subject to the conditions recommended by the Agency, which were not objected to by the Company.

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

ORDER

Georgia-Pacific Corporation is hereby granted a variance from Rule 205(n)(1)(C) of Chapter 2: Air Pollution Regulations until December 31, 1984, subject to the following conditions:

1. The Company shall expeditiously proceed with reformulation of its varnish coatings in the manner outlined in its December 14, 1982 Petition. During the period of this variance, VOC emissions shall not exceed 4.99 pounds per gallon of varnish used.

2. No later than June 1, 1983 and every third month thereafter, Georgia-Pacific Corporation shall submit written reports to the Agency detailing all progress made in achieving compliance with Rule 205(n)(1)(C) of Chapter 2. These reports shall include information concerning the quantity and VOC content of all coating utilized during the reporting period, a description of the status of the reformulation program, and any other information which may reasonably be requested by the Agency. The reports shall be sent to the following addresses:

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

Environmental Protection Agency,
Division of Air Pollution Control,
Region 1 - Field Operations Section
1701 South First Avenue
Maywood, Illinois 60153

3. Within 45 days of the date of this Order, Georgia-Pacific Corporation shall execute a Certification of Acceptance and Agreement to be bound to all terms and conditions of the 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 Certificaton shall be as follows:

CERTIFICATION

I, (We) _____,
hereby accepts and agrees to be bound by all terms and conditions of the Order of the Pollution Control Board in PCB 82-142, May 5, 1983.

_____
Petitioner

_____
Authorized Agent

_____
Title

_____
Date

IT IS SO ORDERED.

I, Christan L. Moffett, Clerk of the Illinois Pollution Control Board, hereby certify that the above Opinion and Order was adopted on the _____ day of _____, 1983 by a vote of _____.

_____
Christan L. Moffett, Clerk
Illinois Pollution Control Board