

Monsanto

OCT 15 1974

VC1 - File

FROM / NAME & LOCATION

Paul R. Graham - B3NB

DATE October 14, 1974

SUBJECT VCM Summary

REFERENCE

TO	J. E. Springgate	B3NA
	J. G. Bergomi	B2SF
	R. N. Brell	B3NB
	P. O. De Garmo	B3NJ
	A. G. Eades	B3NJ
	W. B. Papageorge	B1ND
	P. S. Park	A3SA
	J. E. Smith	B3NH
	E. P. Wheeler	A2SA

The attached is a report on the
VCM issue prepared at the request
of Dr. Heininger.

PRG
P. R. Graham

/jar

Attachment

RSV 0014039

Monsanto

FROM NAME & LOCATION

P. R. Graham - B3NB

DATE October 11, 1974

cc: R. W. Bucknell

B3NB

M. W. Farrar

R2E

SUBJECT VINYL CHLORIDE MONOMER ISSUE

E. H. Fording

B3NA

H. A. Hashbarger

B3NA

REFERENCE

df: VCM Summary

TO : Dr. S. A. Heininger

Two major developments in the VCM issue have taken place in the last several days. By far, the most important news comes from OSHA. However, the FDA have leaked a significant change in their philosophy toward this issue.

1. OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION

OSHA's Permanent Standard for Exposure to Vinyl Chloride was published in the Federal Register on October 4, 1974. A brief description of its salient points follow:

- The Standard applies to the three major segments of the industry: VC production, PVC polymerization and PVC conversion (fabricators). It does not apply to those who handle or use fabricated PVC products.
- The Emergency Temporary Standard remains in effect until January 1, 1975. This means that the 50 ppm exposure limit will continue to that date.
- On January 1, 1975, the Permanent Standard will, unless stayed by the Court, take effect.
- The provisions of the new standard call for permissible exposure limits of:
 - . 1 ppm on a time-weighted average over an 8-hour period, and a
 - . 5 ppm maximum based on a 15 minute average.

However, when employee exposure exceeds the permissible exposure levels, the use of respirators will:

- .. be discretionary with the employees when the level does not exceed 25 ppm during the period, January 1, 1975 to January 1, 1976.
- .. be mandatory after January 1, 1976.
- A mechanism is included in the regulation to exempt certain plants or plant areas from the regulation. When monitoring

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shows VCM levels below 0.5 ppm (action level), the employees, areas or plant are effectively exempted from all provisions of the Standard. This would exclude most of the fabricating industries.

Our interpretation of the significance of the new regulation is as follows:

- During the 15 month period between now and January 1, 1976, the employer must:
 - . Monitor the VCM level monthly
 - . Provide respiratory protection when the permissible exposure limit is exceeded (use is optional by employees at levels below 25 ppm). Canister or cartridge type respirators are acceptable respiratory protection. This equipment is much more convenient to use than the unwieldy "air line" type respirators thought to be necessary before the adoption of this Standard.
 - . Institute engineering studies leading to the reduction of VCM limit to the permissible exposure limits.
- OSHA has set a permissible exposure limit which cannot be met, without the use of respirators, by known engineering methods. The cost of developing these methods of control to meet this standard, along with the increased costs for monitoring, record keeping and medical surveillance, will certainly increase the price of PVC over the next 2 years.

The Standard seems to have been written with the expectancy of legal action. Suits have indeed been filed by the SPI, Firestone, Hooker and Dow. It is not known whether or not the unions have done likewise. Preliminary input from our friends in the PVC industry (Borden, B. F. Goodrich, Exxon, Ethyl Corp., Uniroyal) indicates no major shutdown nor any intention to delay present expansion plans. No major obstacles are expected in the fabricating industry -- particularly those in the flexible PVC area.

2. FOOD AND DRUG ADMINISTRATION

By edict from the very top levels, the FDA has changed the wording in their planned regulation on VCM. The regulation will limit the VCM level in flexible PVC food packaging to 1 ppm and in rigid PVC packaging and pipe to 10 ppm. Original information included a 50 ppb limit on VCM which could

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Dr. S. A. Heininger

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migrate into the food. This was eliminated because the FDA has no data showing this level to be safe. No problem in meeting the 1 ppm level is expected in flexible PVC; however, a great deal of difficulty is anticipated in rigid PVC applications.

Sources for the above industry opinions are attached.

PRG

P. R. Graham

/jar

Attachments

RSV 0014042

NOTES ON COMMENTS FROM INDUSTRY SOURCES ON
THE VCM ISSUE

B. F. GOODRICH -- Dr. Benj. M. G. Zwicker, Director, Technical Planning

At this point BFG appears to be taking two courses of action relative to this issue. On legal side, they are planning to file a suit for a stay of execution of the "very stringent" Permanent Standard, claiming that the 1 ppm exposure limit was not based on any data presented at the hearing and also claiming that engineering know-how is not available to lower the exposure limit to 1 ppm without the use of respirators. Their suit will therefore claim technical non-feasibility. On the other hand, Zwicker stated that BFG sees nothing in the Standard which would prohibit them from operating through December 31, 1975. They will proceed with plans for increasing VCM capacity. Technical effort will continue at an accelerated rate in an attempt to reduce the airborne VCM levels to the lowest possible level.

BORDEN COMPANY -- Dr. A. Cummin, V.P., Corporate Technical Director

Cummin feels that the regulation is much less stringent than it appeared to be in the original news release. Borden will continue to make resin with little or no interruption. Work will continue to lower VCM airborne levels. A key provision in the regulation is the allowable use of cannister-type respirators. Cummin feels that fabricators (Borden is one also) will be exempt totally or in part from the regulation. He promised to give me a copy of a Borden report on the subject on October 14.

EXXON CORPORATION -- Dr. J. R. Livingstone, Jr., Mgr. of Research

Although Joe is not involved directly with VC or PVC production, he is a key man in Exxon's international expansion planning for plasticizers and, therefore, has followed this issue closely. He believes the regulation to be stringent but not devastating to the PVC industry. It will not effect Exxon's expansion plans.

FIRESTONE -- (Via Call by A. E. Gray)

Although concerned about feasibility of the use of protective equipment, Firestone said that they are in a better position relative to

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FIRESTONE (Continued)

the Standard than any of the major VCM producers. The availability of PVC will be affected.

ETHYL CORPORATION -- Warren Rees, Director of Marketing

Ethyl feels that they will have no difficulty in complying with the regulation.

TENNECO -- Dr. Toi Aalto, Manager Product Safety Services

No problem is visualized through most of 1975. The Standard will not affect plans for their new 230 M pound PVC plant scheduled to come on stream in December, 1974. Tenneco has also filed suit and will continue to "pull out all legal stops" to get the Standard stayed. Dr. Herb Carr (also of Tenneco) advised of an industry meeting on VCM to be held in Washington on October 11.

GOODYEAR TIRE AND RUBBER COMPANY -- Dr. W. Combellick, Director of Fabricated Products

Mr. Combellick thinks that the fabricating operations will not be "seriously" affected by the Standard. Studies are already underway to determine which, if any, of the plant areas come under the regulation.

ARMSTRONG CORK COMPANY -- (Via Call by A. E. Gray)

The VCM level on the tile calendars may be higher than the 0.5 ppm action level bringing that part of the plant under the regulation. They are also concerned about its effect on upcoming management-union negotiations.

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KELLER AND HECKMAN LAW OFFICES - Counsels for the SPI and
Individual Companies

The following are the preliminary comments from K&H:

"The only comments we might make are that we do consider the OSHA "decision" very well written from the point of view of "lawyering" technique. Nevertheless, it would appear that the Administration, undoubtedly influenced by political and image considerations, virtually ignored the lack of any substantial evidence in the Record to indicate that the levels it has set are technologically feasible and will require the imposition of a tremendous burden on those whom the Act is designed to protect, i.e. employees, by compelling a great many of them to wear respirators for extended periods of time. Imposing such a burden on employees is contrary to the spirit of the Act, as is the promulgation of a Standard which sets limits that are technologically infeasible to achieve."

PRG

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