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PROPOSED QUESTIONS FOR EPA STAFF
REGARDING PROPOSED AMENDMENTS TO
THE NATIONAL EMISSION STANDARD
FOR VINYL CHLORIDE

June 22, 1977
Durham, North Carolina

SPI Manufacturing
Technology Committee:
Robert Laundrie, Chairman
John Lawrence, Technical
Director

INTRODUCTION

Once again, we appreciate the opportunity to meet with the staff of EPA. We hope this exchange will lead to a better understanding of what it is you propose to do regarding the National Emission Standard for Vinyl Chloride.

[We would be less than honest if we told you we were happy to be here.] Frankly, we thought all issues had been explored over the last two years regarding vinyl chloride, but apparently we were wrong. We are disappointed that changes would now be suggested without apparently any new information suggesting that changes be made. However, being responsible corporate citizens, we will work with you and attempt to improve, if we can, upon what we have already committed to do. But please do not ask us to do the impossible.

Now, we have some questions we would like to raise regarding the proposed amendments. I will go through the questions on a section-by-section basis.

I. SECTION 61.62

(a) In the proposed regulations preamble, (F.R. 28155), it is stated that new oxychlorination or PVC reactors installed at an existing plant will be subject to the new source standards. If this new equipment were installed as replacement items and would not increase production or emissions, we fail to see why they must meet the new standard. The EPA has recognized that replacement of pumps, etc. should not subject the plant to the new standard. For these reasons we do not see the need for a different approach on reactor vessels. [Would you explain the rationale for suggesting this change now?] Are the technical facts any different today than they were in October when the Vinyl Chloride Standard was promulgated?

(b) In proposing a 5 ppm standard for new oxychlorination plant vents, the EPA has concluded that oxygen technology is economic and can be applied to all the various basic technologies which exist. This conclusion is apparently based on a reference which quotes the price of oxygen at a level several years ago. Also, that quoted price ($14.34/ton) was based on the co-purchase of nitrogen

which may or may not be needed by the plant. Current prices of oxygen, which also presumes purchase of nitrogen, are in the range of $20-25 per ton. This increase in price reflects primarily the increased cost of fuel to produce and deliver the oxygen. We believe you have failed to recognize that an oxygen based technology is more energy intensive than air based systems. The increased energy consumption may be between 30 and 50 million BTU's per hour. This should be considered by EPA before promulgating new standards. Were you aware of this change in oxygen costs? Based on these real world costs, do you believe oxygen technology is still economical?

(c) Concerning the use of oxygen technology for new oxychlorination plants, the EPA economics assume a nearby available source of oxygen. This can only exist where there is already a concentration of oxygen consuming industry and therefore implies that new sources must locate near old sources to gain any economic advantages. On the other hand, the offset policy, as we understand it, may well require the dispersement of new sources of vinyl chloride. If a new source were to locate at a remote location, it is not likely that any ~~source of oxygen~~ air separation plant could be enticed to locate there for such a small offtake unless much higher prices were paid for the oxygen.

These two parts of the proposal appear to be in conflict. Are they in conflict? Were you aware of this practical problem? Do you see this as a problem? If not, why not?

II. SECTION 61.63-64

(a) Under the current standard, it is presumed that a 10 ppm allowable emission is a 1-hour average standard. To meet this on a continuing basis, industry has designed and installed a certain reliability into the abatement devices. Is it the intention of the proposed revision to also require a 5 ppm, 1-hour average compliance? If so, we believe that industry will actually have to install additional control devices which appears contrary to EPA's stated intention of not requiring changes or additions to equipment installed to meet the existing 10 ppm standard. Now would you clarify the reasoning by which the new lower emission level of 5 ppm was chosen, and how it is to be achieved by existing equipment while maintaining the 3-hour not-to-exceed provision of the present standard? Lower limits will mean more excursions, unless new technology, of which we are not aware, exists.

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(b) We need a definition of what is meant by a new grade of resin. Will small changes in molecular weight, comonomer content, or other

physical properties constitute a new grade? There are many grades and types which cannot yet meet the present standard completely, and we have no forseeable technology to change this situation. How will this requirement be administered? (enforcement)

(c) We believe it will be extremely difficult for small plants who specialize in acetate copolymer or dispersion resins to maintain their market position under this "new grade resin" rule. Have you considered the difficulties this may cause the small plants?

(d) We have polled the dispersion resin companies and find that there is no new technology for stripping dispersion resins to 500 ppm. By October, 1978, there is a consensus that most companies will be in compliance with 2000 ppm on most products. Even then, some resins will have to be discontinued. You seem to imply in the preamble, "that for some resins, companies have already developed stripping technology which would meet the proposed amendment." We would agree with you regarding certain copolymer suspension resins, but you surely do not believe that is the case for dispersion resins, do you? If so, tell us what we are missing?

(e) We are concerned as to what you mean by "commenced construction." For existing sources, subject to the Standard issued on 10/21/76, which have not yet

received an approved compliance schedule or have not actually started construction, does this new proposal reduce their allowable emissions from 10 ppm to 5 ppm? What happens if you have been negotiating contractual obligations before June 2, but they are not signed until after June 2, 1977? Assume your waiver is approved on June 3, or later, and you enter into the first contractual obligation on September 1, 1977, pursuant to the approved waiver? What if the construction work is to be performed by an in-house construction firm and no contracts have been signed. Work is to commence July 1, 1977 pursuant to a waiver granted before June 2, 1977. Assume the waiver is granted after June 2, 1977. What then?

Put definition from preamble into regs.

III. SECTION 61.68

(a) A plant could well develop several emission limits, e.g. new and old reactors, new and old grades, etc. There would then be no single correct calibration gas. Why is there felt to be any substantial loss of accuracy at 5 ppm if the instrument is calibrated at 10 ppm?

IV. SECTION 61.72

(a) We are concerned with some of the requirements regarding the hearing on interim permits. Could you explain in greater detail what guidelines will apply to that hearing? What will be the basis for a decision as to granting the permit? Will detailed proprietary information be requested? We are concerned ~~it~~ that confidential info would be divulged as the result of the hearing. Why is a hearing necessary at all?

(b) There is a conflict between the preamble and the regulation as to the timing of the application. Would you please explain which is correct? 1 year

V. SECTION 61.73

(a) Regarding the offset policy, is the basis for the 8 km ruling derived from dispersion studies such as those made by E. Burt, or shown in the Standard Support Document or the Risk Assessment Document, or on ambient monitoring? We need a better understanding as to the basis for this choice of separation distance.

(b) Will emissions below those permitted by the standard be bankable for future use? Will this continue to be so if there are future revisions in emission levels? Will emissions be measured in ppm or in pounds?

(c) How are fugitive emissions to be handled? Will they be scaled directly according to plant size from the estimates used in the Standard Support Document? Will an operator get credit for classes of fugitive emissions not present in that plant, such as loading and unloading? Assume delivery is by pipeline. How will these credits be estimated? Are fugitive emissions to be considered non-reducible for offset purposes?

(d) The Standard Support Document ascribes 29 lb/hr of fugitive emissions to a typical suspension plant, and 0.8 lb of reducible emissions to a typical monomer plant, after these changes. Therefore, polymer plants can never be built next to a monomer plant, or expanded by offsets, if fugitives are considered irreducible. We are concerned about the increased emissions from loading and unloading, and the added amount of vinyl chloride in transit if plants cannot be built within pipeline distance. Have we interpreted this policy correctly? Could we have a quantitative estimate of the "considerable increase in ambient air concentration" stated to result from adjacent plants? Our calculations [redacted] show it to be negligible.