

FROM R. T. Cheng

IN REPLY
REFER TO RTC 77:12

TO Ed Lu

DATE January 25, 1977

SUBJECT RESULTS OF ENVIRONMENTAL VC SAMPLING

Enclosed are results of the environmental vinyl chloride air sampling survey conducted by you and Mr. Huang on December 27, 1976, January 5 and January 6, 1977. Except for sampling station D, all other sampling stations showed non-detectable concentrations of vinyl chloride. Sampling station D, which is sort of downwind from the major vinyl chloride emission sources, showed 0.12 ppm of vinyl chloride.

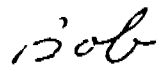
My interpretations of the results are:

1. Samples A and C which were upwind from the VC emission sources should have no VC. Our results confirmed this.
2. Samples B, E, F, G, H, I and J might also have been outside the fan-shaped wind and pollutant dispersion pattern. Therefore, we could not detect any vinyl chloride.
3. Sample D was closest to and roughly downwind from the VC emission sources, and showed the only positive result.

Currently there is no ambient air quality standard governing vinyl chloride. The emission standard by the U. S. Environmental Protection Agency calls for 10 ppm maximum stack and/or vent concentrations from VC industries. To arrive at a safe exposure level for the general public, a frequently used approach is to reduce the occupational exposure standard (threshold limit value) by a factor of 10 to 100. A 10-times reduction on the OSHA vinyl chloride standard would require that the people living in the vicinity of the VC and PVC plant be exposed to less than 0.1 ppm 24-hour average VC concentrations. On the other hand, a 100-times reduction from the threshold limit value would call for an ambient benzene air quality standard of 0.01 ppm.

I would like to suggest that you repeat this ambient air survey. This time, try to locate most of the sampling stations downwind from the emission sources. Hopefully, the wind will be from east to west so that we have the Company's housing compounds downwind from the plant. If this is not possible, then let's set up those sampling stations truly downwind from the VC sources.

Please advise me if you feel that my interpretations of the air sampling results are incorrect. After all, you were there on location when those samples were collected.



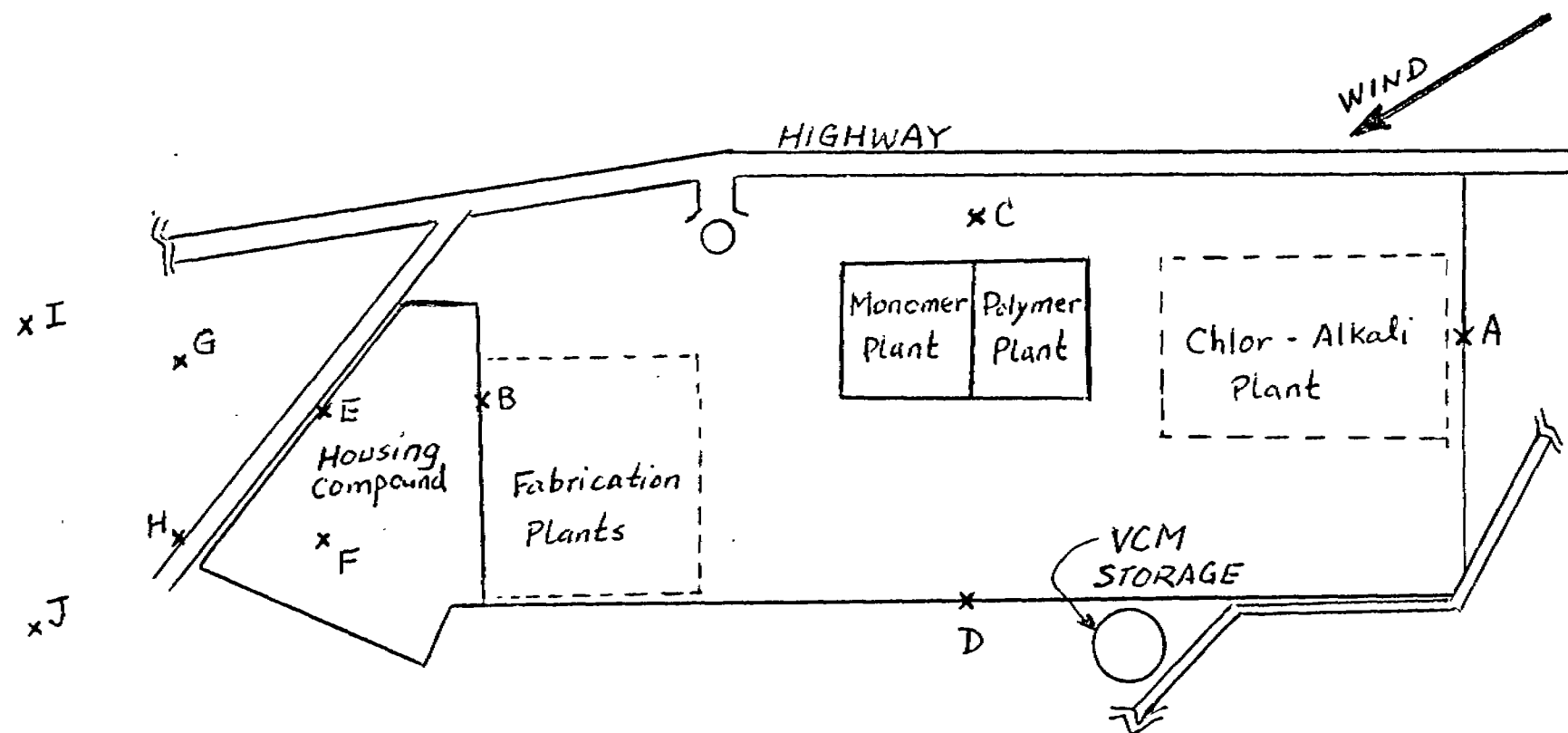
R. T. Cheng

RTC/ELK
Attach.

cc: B. H. Gambrill / R. L. Gibson, M.D. / J. O. Jackson / H. T. Miller

CUSAROSS 00005

ENVIRONMENTAL VC SURVEY



Sampling stations A through J, except D, all showed nondetectable VC concentrations.

Sampling Station D showed 0.12 ppm VC.

Station D was approximately downwind from VC sources.

CUSAROSS 00006

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