

ETHYL CORPORATION

INTER-OFFICE

To T.R. Robinson, M.D.

Address BRP

FROM H.M. Taylor

Address BRT

SUBJECT Comprehensive Industrial Hygiene Survey
Activity Summary

DATE 12/11/74

Overall Activity

During the first three months of this program we have ;

1. Established procedures for the conduct of the survey with plant management.
2. Established a system for analytical services with R&D.
3. Identified and described process materials and flow systems within operating areas. Descriptive reports have been prepared for hydrocarbon, PVC and the sodium areas. These reports provide guidelines for more definitive aspects of the survey and will be included within our final report.
4. Started to identify employee groups exposed to particular chemical and physical health hazards.
5. Evaluated need and purchased additional sampling materials.
6. Initiated a field survey to identify and measure chemicals inspired from the plants' breathing-air system.

Breathing Air System

Based upon incomplete data from the hydrocarbon and organic lead areas we have found vinyl, ethyl chloride, methyl chloride, ethylene dichloride and 1-1 dichloroethane pass completely through the combined utility - breathing air system. Furthermore the concentration of these chemicals is little diminished from the compressor inlet to airline outlet. Chemicals such as 1-1-2 trichloroethane and chloroform have not passed through the air system. We have found almost all organic lead is also removed before reaching the breathing outlets. During our survey there were signs which suggested the automatic controls which shut down overheating air compressors are not effective. Excessive heat decomposes

compressor lubricating oils and these noxious materials are thereby introduced into the breathing air. In addition we have found some of the breathing-air lines within the hydrocarbon area do not supply enough breathing air. Plant safety and hydrocarbon have been told of this deficiency and a hygiene meeting has been set with HC technical service.

Overall effort

The following corporate medical personnel comprise our task force:

	Total hours effort during the period	% of total hours for the comprehensive industrial hygiene survey
B. Pancamo; liaison with R&D lab	585	21
D. Cooper; material and systems definition	---	62
J.D. Watts; ongoing industrial hygiene program participation	568	41
H.M. Taylor; planning, training program development	791	13

In addition, 2% of Taylor's time was tower to plant travel.

It does appear the impact of the comprehensive industrial hygiene survey has been blunted by dilution of its personnel. However, when measured on an equivalent performance basis, continuous manpower has probably amounted to about one person a day. The industrial hygiene survey has received substantial support from R&D analytical which in addition to performing 45 sample analysis has expended significant time and energy to develop new and reliable analytical approaches to meet sampling requirements. Baton Rouge Plant management, tech service personnel and most everyone at the plant have also been supportive to our effort.

Presently, in starting again we are redefining the thread of the endeavor and anticipate continuing with th

breathing evaluation. We plan to submit a detailed report when the breathing air phase is complete before moving to other areas.

Handwritten signature

Henry M. Taylor
Industrial Hygienist

HMT:daw

cc: Wallace Armstrong
J.J. Bergin
D.E. Cooper
R.L. Hudson
B.P. Pancamo
W.E. Rinehart, Sc.D.
W.C. Strader ✓
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