

CELANESE CHEMICAL COMPANY
Chemcel Plant
Bishop, Texas

PLAINTIFF'S
EXHIBIT
CEL-214

TO: Mr. C. E. Gary
Mr. N. Flaten

FROM: G. Ille

GI-172

February 9, 1981

1981 INDUSTRIAL HYGIENE LABORATORY SUPPORT

The following proposed program is presented for your review and evaluation in meeting the 1981 Bishop Plant industrial hygiene objectives:

I. Evaluation of the Work Environment

- A. Greater emphasis should be placed on evaluating and documenting the causative factors for high sample results/excursions rather than just collecting exposure data. Collection of personal exposure data must be followed up with investigative work to explain the possible differences between sample results. Was there a spill that occurred, a leaking pump or just different handling procedures that cause sample results to vary by a factor of 10. We should work with unit superintendents to identify causes for high sample excursions with the ultimate goal of reporting recommendations agreed upon by Operations to resolve the problem.
- B. Closer coordination must be developed between the Laboratory Health Chemists (LHC) and the Industrial Hygienist in evaluating industrial hygiene survey results. I recommend that laboratory survey results be written to include my recommendations and evaluation of the sampling data. This means that when a survey report is in the draft stage, the LHC brings it to me so that we can discuss the results, evaluate the need for additional samples and agree on any conclusion, recommendations or actions required, prior to issuing any summary report (NOTE: employees can and should still be notified of their personal sample results within five days after their results or the survey results become available). By developing this closer rapport, I will be better informed of the circumstances that revolve around the sampling data results and our industrial hygiene program can be better geared to solving industrial hygiene problems rather than just collecting data.
- C. The number of samples to be collected always seems to pose a problem. At the Formaldehyde RFA Review Meeting, questions were raised (by D. G. Pausky) whether we had sufficient resources to determine employee exposure at the 90% Confidence Level (CL). The number of samples to be taken should be such to estimate the true range of expected exposures. In general, this means taking about 12-15 samples per zone-contaminant-job class. A minimum of seven samples should be initially collected, over several weeks (to allow for variations in weather conditions, operating conditions and employees) before a trend line is drawn and the mean, standard deviation and 90% confidence level determined. In general, if at the 90% CL,

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90% of the data fall below half the permissible exposure level (PEL), no additional samples need be taken. Again, our objective should not be to just document employee exposure but to solve industrial hygiene problems.

- D. A sampling schedule should be prepared by the LHC and coordinated through the Plant Industrial Hygienist. The Health Surveillance System should be used to set priorities for sampling those contaminants for which no exposure data is available. However, not all contaminants need to be sampled. Sampling should be initiated for those contaminants where the probability of exposure exceeds a recommended standard. In addition to the above, the following areas should be emphasized.

1. Noise - obtain additional exposure data, especially for zones where the initial survey has indicated a need for engineering controls. Also a plant-wide noise survey is required to identify areas exceeding 85 dBA. These areas will be posted with hazardous noise warning signs and will require ear protection.
2. Sand Blasting - obtain exposure sampling data inside the respirator and also for employees working in the vicinity (ABI Yard).
3. Formaldehyde - some engineering controls have been implemented. Additional samples should be taken where we have both a minimum number of samples (< 7) and where exposures exceed the Calanese internal criteria.
4. Major emphasis should be put this year on sampling Maintenance employees, especially for noise, CO, formaldehyde, benzene, ethylene oxide and asbestos. Again, the sampling strategy should be geared toward solving exposure problems, not just documenting them.
5. Dust - sampling should be planned for PE and Utilities (lime, caustic soda, soda ash).
6. Major emphasis should be placed on field testing the silica-gel solid sorbent method for formaldehyde. This will allow us to retake in 1982, the large number of formaldehyde samples needed to evaluate the effectiveness of Phase I engineering controls.
7. The method validation committee may have additional requirements for 1981. The Laboratory Superintendents should be consulted for input.

II. Health Surveillance System

The Health Surveillance System must be regularly updated by the LHC if it is to provide us with meaningful information upon which to base decisions. At least annually, the following must be reviewed and updated by the LHC:

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- A. Zone descriptions - have any new units started up or old ones been shut down.
- B. Job classification descriptions - changes in job responsibilities must be updated in the system.
- C. Chemicals - new chemicals must be added to the system with appropriate start dates.

In addition, the Exposure Zone Qualitative Data Form (long form) must be completed for every zone, job classification and contaminant of industrial hygiene concern. The short form has already been completed. As surveys are completed, the long form should be completed, listing estimate of normal exposure, frequency and other general information. When survey reports are written, the summary should be entered into the computer using the Interpretive Statement form. All previous reports will be entered by the industrial hygienist. Finally, when unit upsets occur, the LHC must participate in obtaining the necessary data, when required, to fill out Unusual Occurrence Forms. A form has been developed to be filled out by the operations superintendent responsible.

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