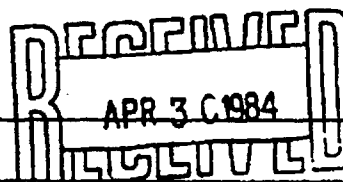


# Interoffice Memorandum



|                                                  |                            |
|--------------------------------------------------|----------------------------|
| TO (Name and Location)<br>Bruce Bowyer, New York | DATE<br>4/17/84            |
| FROM (Name and Location)<br>Gary Ille, Bishop    | REFERENCE NO.<br>GI-017-84 |

cc: J. J. Fritsch, Bishop  
R. G. Brandt, Bishop  
W. H. Brough, Bishop  
W. H. Meyer, Bishop  
✓ G. A. Rodenhausen, New York  
J. Stelluto, New York  
V. A. Parrillo, Chatham  
M. R. Stenzel, Dallas  
G. A. Vos, Dallas  
GI File: 226.7 (Audit)



CSO

## CORPORATE INDUSTRIAL HYGIENE AUDIT CER FACILITY BISHOP, TEXAS

This letter describes the corrective action or action plan for each audit finding:

### FINDING #1:

Some aspects of the respirator program are inadequate and need to be reinforced.

### RESPONSE:

- a) A letter (attached) was issued by Gene Thomas, Safety Superintendent, requesting unit supervisors to re-emphasize the Bishop Respiratory Policy, VII-6, "Respiratory Protection Program". In addition, I am scheduling random inspections of various units and will pay particular attention to respiratory usage and storage. The Bishop plant implemented S-T-O-P program will be a very effective tool for correcting deficiencies.
- b) Respirator wear during ethylene oxide unloading was reemphasized by the Operations Department and is being enforced. A safety problem at the ethylene oxide unloading area which presented a tripping/falling hazard, while using fresh air respirators, has been temporarily overcome. Installation of the permanent solution will be complete by June, 1984.
- c) We are awaiting endorsement from the Chemical Company regarding our quantitative fit-testing program. If approved, we will be going with the Corn Oil Aerosol Method. A letter has been attached summarizing our proposal.

FINDING #2:

A facility Industrial Hygiene Quality Control Program is not being provided.

RESPONSE: Mr. Mark Stenzel will be addressing a company Industrial Hygiene Quality Control program to assure uniform application of validated sampling and analytical procedures and methods.

FINDING #3:

Functional guidance for I.H. sampling and analysis is not being provided in all cases.

RESPONSE: Increased functional guidance for industrial hygiene sampling and analysis will be provided by the I.H. professional to assure integrity of data. This will be accomplished by periodically observing field sampling procedures for chemicals common to both plants, such as formaldehyde, methanol, and dusts. In addition, I am proposing that side-by-side area samples be taken periodically to evaluate both sampling and analytical procedures.

FINDING #4:

Insufficient formaldehyde sampling data in Special Products. Area sampling by NATLSCO suggests a potential exposure problem.

RESPONSE: Based on previous formaldehyde sampling data obtained in the Special Products Extruder Area (Zone 001), the area was prioritized as low formaldehyde exposure potential. Both contractor samples were taken directly over the water strand bath on extruder MS-517 and MS-518. Since operators/helpers rarely work directly over the strand bath for any length of time and since vent hoods have been installed and made operational since the audit, this area continues to be prioritized as low formaldehyde exposure potential. No sampling is scheduled for 1984.

FINDING #5:

The ethylene oxide sampling and analytical method is not validated.

RESPONSE: No validated sampling and analytical method exists for ethylene oxide at this time. No work is planned at Bishop to validate this method. Clear Lake has done some work that indicated the present charcoal method may overestimate the true ethylene oxide air concentration. We will modify our method when information becomes available.

FINDING #6:

Insufficient 8-hour time-weighted average exposure data for employees in Special Products exposed to asbestos and antimony trioxide.

RESPONSE: Eight-hour, time-weighted exposure data has been scheduled for 1984. Future sampling data will be of this type.

FINDING #7:

Insufficient toxicity and exposure data in the pigment area.

RESPONSE: Sampling of potential cadmium exposure has been scheduled for the Special Products Masterbatch helper when loading, unloading and cleaning Henschell mixers. In addition, the Special Products extruder operator will be sampled when dumping Masterbatch concentrate and cleaning the Masterbatch feeder. Eight-hour time-weighted average exposure data will also be obtained. Approximately 70% of our pigments are cadmium. CSO, Chatham is working on development of the toxicity data.

FINDING #8:

Not all chemicals are cleared for purchase by the S.H.E. Department as required by Bishop Plant policy.

RESPONSE: It has been requested by both plant Purchasing departments that we review the Celanese Material Information System (CELMIS) program and put on a training program outlining the Purchasing departments' responsibilities. This has been scheduled for accomplishment in the third quarter, 1984.

FINDING #9:

Industrial Hygiene walk-throughs are not conducted on a regular and frequent basis.

RESPONSE: Industrial Hygiene walk-through surveys are being emphasized via the Quality Program, goals and measurement system. In addition, the industrial hygienist will be conducting twice-monthly walk-throughs with the plant and S.H.E. Managers.

FINDING #10:

Raw exposure data is being released to plant management and to supervision, prior to review and interpretation by the facility Industrial Hygienist.

RESPONSE: All laboratory sampling data reports are now being directed to the plant Industrial Hygienist with copies only to laboratory supervision. The industrial hygienist interprets the data and issues a report to management and the individuals involved. The unit supervisor has the responsibility for reviewing the data with his employees, answering any questions and ensuring that corrective measures are implemented. The original laboratory report is attached to the industrial hygienist's report.

FINDING #11:

A sampling philosophy, based on statistical techniques, has not been developed.

RESPONSE: Although the facility industrial hygienist has not developed a formal sampling philosophy based on the statistical need for monitoring in a zone (as a function of job class and contaminant of concern), he has been actively involved with the Company Industrial Hygienists in utilizing statistical control charts and enveloping techniques to define the 90% Upper Confidence Level. This concept has already been used in making decisions when engineering controls are (or are not) required to further reduce employee exposure potential. The Company Industrial Hygienists will be further refining these concepts to develop:

- a) Minimum number of samples required under various exposure criteria to define the exposure potential in new areas.
- b) The number of maintenance samples required to determine if changes have occurred.

Timing for this I.H. sampling company program will be outlined in future status reports.

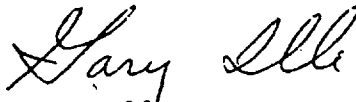
Bruce Bowyer  
Page 5 - GI-016-84  
4/17/84

FINDING #8:

Routine maintenance, inspections and air flow measurements of local exhaust ventilation systems are not being conducted on a routine basis.

RESPONSE:

The S.H.E. Department will develop a program of coordination among maintenance operations and the Labs to ensure that lab hood inspections and air flow measurements of local exhaust ventilation systems are programmed. This is scheduled for completion in the fourth quarter, 1984.

  
Gary Ille

GI/rgs  
Attachment