

SAFETY & FIRE PROTECTION DIVISION
OCCUPATIONAL HEALTH SURVEY NO. 9064-H
VICTORIA PLANT
PETROCHEMICALS DEPARTMENT

FIELD NOTES

G. P. ROBSON

AUGUST 9, 1979

5) Communications

Plant Procedure I/H 2 describes industrial hygiene communication requirements. It is recommended that the procedure scope be expanded to require that at least annual retraining be given to employees concerning key occupational health issues. Where carcinogens or embryotoxins are involved, the communication should be documented and include: employee names, dates and content of the communication.

6) Respirators

- a. Several short-term tasks in Alathon "F" Line (e.g. tank car unloading) have been monitored for vinyl acetate vapor exposure and high levels up to ~200 ppm have been found. It is recommended that, until engineering controls have been installed to reduce employee exposure, these tasks require the appropriate respirator.
- b. It is recommended that a Plant compliance plan be developed for each regular use of a respirator. This should document what engineering controls have been considered to eliminate the need for respirators, what plans exist to implement them or study the problem further. The plan should be reviewed annually.
- c. A Scott Air Pak located at the Acids Operation 1-A Operator Shelter was found with a breathing hose degraded at the face-piece joint. It is recommended that this be replaced.
- d. Two quarter mask filter respirators - not approved for Plant use - were found in a storage locker in Alathon "F" Area. It is recommended that any non-approved respirators be disposed of.

7) Protective Equipment

An acid suit storage locker in Acids Operation 4 was found in a cluttered, overcrowded condition containing two face shields

DUP 0832326

DVI

450550

August 9, 1979

damaged and deformed, apparently by other equipment. It is recommended that corrective action be taken.

8) Chemical Exposure

Several cans of "Liquid Wrench" containing benzene were found in Acids and Alathon Area maintenance cabinets. "Liquid Wrench" was reformulated to eliminate benzene but stock of the original benzene-containing product still exists and appropriate precautions should be taken in its use.

9) Heat Stress

Although no instances of heat stress have been recorded on the plant in recent years, some concern was expressed about the potential for heat stress during work in full body suits. It is recommended that Medical Division be involved in measurements of deep body temperature and recovery pulse rate for employees in selected jobs. Background information has been provided to the Plant O/H Coordinator.

GPR/kms

DUP 0832327

DVI

456568

SAFETY & FIRE PROTECTION DIVISION
OCCUPATIONAL HEALTH SURVEY NO. 9064-H
VICTORIA PLANT
PETROCHEMICALS DEPARTMENT

FIELD NOTES

G. P. ROBSON

AUGUST 13, 1979

10) Respiratory Protection

- a. A 3M 8710 disposable mask is used for protection against copper catalyst dust in DCB-Nylon Area. This particular mask is not NIOSH approved for this application and it is recommended that a 3M 9900 series disposable or an appropriate filter for a half-mask respirator be used.
- b. Compressed breathing air bottles in DCB-Nylon Area were found without verification information on the laboratory analysis labels. The writing had apparently been erased by weathering and it is recommended that a more durable marker be used for labelling.

- 11) Noisy equipment is used in the Central Shops with sound levels exceeding 90dBA. It is recommended that hearing protection be required during use of such equipment.

12) Adiponitrile

The Material Safety Data Sheet for adiponitrile shows an out-of-date AEL for ADN of 5 ppm. The current Haskell AEL of 1 ppm was developed in July, 1978. It is recommended that the MSDS be corrected. It is important to keep key documentation of this type up to date.

13) Air Sampling

The high flow sampling pump used for task monitoring in Nylon Area is not routinely calibrated for flow rate. It is recommended that such calibration be done on a regular basis to ensure reliable performance.

14) Contractors

Two instances of DuPont supplying contractors with respirators were encountered:

DUP 0832328

DV 0450584

SAFETY & FIRE PROTECTION DIVISION
OCCUPATIONAL HEALTH SURVEY NO. 9064-H
VICTORIA PLANT
PETROCHEMICALS DEPARTMENT

FIELD NOTES

G. P. ROBSON

AUGUST 15, 1979

18) Embryotoxins

Dimethylformamide (DMF) is stored in Building 3 Laboratory. DMF is recognized by DuPont as an embryotoxin and should be used in accordance with work practices described in P. M. Norling's letter of May 4, 1979. It is recommended that the container be identified as containing an embryotoxin.

19) Draeger Pump & Tube Calibration

- a. Draeger pumps held by Plant laboratories are not routinely calibrated for volume and flow rate. To assure reliable performance it is recommended that these pumps be so calibrated at least annually using the technique described to the O/H Coordinator.
- b. Some Draeger tubes are calibrated quantitatively where the results are important e.g. for carbon monoxide in breathing air. Tubes used for hydrogen cyanide detection are tested only for qualitative reaction to HCN. It is recommended that periodic quantitative calibration of HCN tubes be carried out to assure satisfactory performance.

20) Velometer Calibration

Air flow measurements in laboratory fume hoods and local exhaust systems are made with Alnor Velometers. These have not been calibrated in recent years. New velometers are being purchased and it is recommended that they be calibrated at least annually by return to the vendor or by use of a suitable, clean Plant duct with known air flow.

21) Ascarite

Ascarite is composed of sodium hydroxide on asbestos and is used in laboratories in Building 3 and 570. It is recommended that a prepackaged form of ascarite be used to avoid possible exposure to asbestos dust in handling.

GPR/kms

DVI

9453587

DUP 0832329

August 17, 1979

TO: CENTRAL SAFETY COMMITTEE

FROM: C. E. BUNN

WILMINGTON OCCUPATIONAL HEALTH AUDIT

The audit was completed on August 16 by G. Peter Robson. Peter met with Staff on August 17 and reviewed the overall rating and the ratings of categories. Following are the ratings with comments:

- Overall - Excellent

I. Organization and Administration

- Organization - Good

The structure appears to be working well and has enabled the program to develop to its present status. The scope of the audits may need to change in the future and place emphasis on specific topics and/or areas.

- Communications - Good

Plant management has openly communicated new information to employees - example - DCB information has been formally communicated and documented. Documentation of carcinogen and embryotoxin information should include names, dates, and scope of communication. Communications received by Alathon personnel from PP&R should be channeled through the Occupational Health Coordinator. The concept of area I/H notebooks was endorsed but it will be necessary to reduce the amount of paper going into them.

- Chemical Catalogue - Good

The chemical inventory and MSDS Manual are complete. The material safety data sheets on DCB, and Perchloroethylene failed to indicate these materials were classified as carcinogens. The AEL on ADN was incorrect. It was recommended that the new chemical purchase procedure include a copy of all new chemical purchase requisitions be sent to the Plant Occupational Health Coordinator.

DUP 0832330

DVI 4453590

- Medical - Excellent

A. Positive points were:

1. Physician being a member of the Occupational Health Management Committee
2. Annual physical exams exceed corporate requirements
3. Physician's Assistant being a member of the I/H Committee
4. First aid and CPR training and annual retraining
5. Good facilities

B. Recommendations

1. Monthly calibration and documentation of the audiograph
2. Quarterly inspection of plant cafeteria

- Contractor Operations - Good

Suggested that all contractors supply details of chemicals they plan to bring on plant before work begins. Supply and upkeep of safety equipment for contractors construes co-management. Should we use roofing contractors, we should remind them that coal tar pitch is regulated by OSHA. Fumes from coal tar pitch should not be allowed to enter air intake ducts supplying air to inhabited areas.

II. Protective Equipment

- Respirators - Excellent

The facility, etc. is better than any Mr. Robson has personally seen. A compliance plan should be developed to document engineering controls considered to eliminate the use of respirators. This plan would be similar to the plan used to document hearing protection engineering controls.

- Gloves - Good

Most areas use gloves selected on basis of performance and experience. Many types of gloves exist in the labs - unnecessary types should be removed.

- Other Protective Equipment

The facility in DCB for cleaning and drying acid suits is excellent. The new field storage closets in DDDA are an improvement on earlier types. Damaged faceshields were found in overcrowded storage closets.

DVI 6453591

DUP 0832331