HEALTH, SAFETY, ENVIRONMENTAL CONTROL

NEWSLETTER

Ethyl Medical Dept., 451 Florida, Baton Rouge, LA 70801

NORTH AMERICAN EDITION

Certification of Occupational Health Nurses

The American Board of Occupational Health Nurses has established a program of certification in occupational health nursing. This is an independent board founded in 1972 to establish criteria and certify nurses for special proficiency in the field of occupational health nursing. Ethyl nurses are encouraged to pursue this form of certification where possible. Further information and application forms can be obtained from:

American Board for Occupational Health Nurses, Inc.
521 W. Westfield Ave.
Roselle Park, NJ 07204

Medical Department Meeting Highlights, March 3-5, 1975

Vinyl Chloride

Dr. W.E. Rinehart described some of the newer trends in toxicology by using VCl as a model.

This material has been known for many years. It was even used as an anesthetic at one time. Dow began toxicological work on VCl in the late 1950's and as a result proposed a company standard of 50 ppm in the early 1960's.

In the 1960's, cases of acrosteolysis (resorption of the bone of the terminal phalanx) were reported and in later work, Dr. Viola produced tumors in rats at very high exposures. Professor Maltoni confirmed the relationship between vinyl chloride and the occurrence of tumors and it only remained for Dr. Creech at B. F. Goodrich in January 1974 to complete the circle by reporting angiosarcomas of the liver in employees of a vinyl chloride polymerization plant.

Discovery of the carcinogenicity of vinyl chloride has once again raised the question as to the existence of a threshold for a carcinogen. It has also renewed the search for possible undiscovered carcinogens in the work environment. With at least 30 cases of human angiosarcoma associated with vinyl chloride polymerization reported from Europe and the United States, other materials which had previously been considered innocuous are now being looked at with suspicion.

Medical Program Baton Rouge Plant

The Medical Program of the Baton

NA/EMD Issue Number 3, April, 1975

Rouge Plant is designed to provide medical supervision and protection of the health of the employees. Plant Medical's efforts to assure maintenance of a healthful work environment are very important. They require utilization of Industrial Hygiene services (provided by Corporate Medical) to evaluate the work environment and recommend preventive measures to control potential health hazards. Other important preventive measures involve special medical monitoring of certain workers (i.e., lead) and periodic physical examinations.

Occupational injuries and illness are evaluated and treated or sent to an appropriate specialist for treatment. Personal illnesses may be treated if this will enable the worker to stay on the job. Counseling on medical problems and directing to adequate sources of medical care are additional services to employees.

Advice to management is provided on many matters. Plant Medical provides administrative (disability certification) service in connection with the Accident and Sickness Plan. Evaluation of ability to work, and outline of any restrictions of activity required for health reasons, is a daily activity. Preplacement examinations try to assure that employees are placed in jobs that they can do safely.

Education of employees concerning hazards and means for protecting their health on the job is an increasingly important function of the Plant Medical Department.

Some research (toxicology, evaluation of clinical laboratory tests, epidemiology) is carried on almost all the time.

Chemicals currently requiring the greatest attention are lead alkyls and vinyl chloride.

The work of the Plant Medical Department is carried out by 2 physicians, a secretary, an administrative supervisor, 2 registered nurses, 2 technicians, 4 shift nurses and a clerical worker. There are about 2,500 employees at the plant which operates around the clock, seven days a week.

E.G. LaCour, M.D.

Personnel Monitoring

The development of battery operated light weight pumps which could be carried on a person without undue discomfort has revolutionized the measurement of employee exposure to atmospheric contaminants. This development, in the 1960's, for the first time made it possible to truly approximate the individual's air intake rather than rely on a monitor taking "breathing zone" samples. Currently this technique is receiving widespread attention and use.

The procedure presently used is to have the employee carry a personnel monitor during part or all of a shift. The monitor consists of a pump and usually a charcoal-filled tube thru which the air is pulled. Airborne contaminants are absorbed on the charcoal and subsequently analyzed by appropriate methods. From the amount of contaminant absorbed and volume of air sampled, it is possible to calculate an average exposure concentration and time weighted average.

While this technique undoubtedly gives a truer picture of average exposure than previous methods, it still lacks the ability to identify and quantitate peak exposures. Furthermore, the applicability of the results as they relate to existing standards based on area monitoring has not been scientifically documented or defined.

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Notes and material from recent informal medical conference on vinyl chloride.

T. R. Robinson, M.D.

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