



**INDUSTRIAL HYGIENE**

Current News of Official Industrial Hygiene Activities

Issued monthly by the Division of Industrial Hygiene, National Institute of Health, U. S. Public Health Service, Bethesda, Md.

Vol. 3

October 1943

No. 10

**HAZARDS OF SEWER GAS IN SLUDGE PLANTS**

A recent fatal accident in a sewage plant in West Virginia directs attention to the need to instruct workers around sewers, cesspools, and sewage disposal or treatment plants in the dangers of sewer gas. In this case a worker opened a pipe line allowing a pumping pit to partially fill with sewage sludge. He was overcome and two more men attempting to rescue him also were killed. Three others were overcome, but survived.

In this case, poisonous gases were responsible for immediate unconsciousness. It is known that hydrogen sulphide, the most important of these gases formed in sewage, will cause death in a few minutes if a person is exposed to as little as 0.1% concentration. Explosive gases and oxygen deficiency are additional dangers to workers in sewage plants. Proper safety precautions should be thoroughly explained to workers, and safety and first aid equipment provided.

**INDUSTRIAL HEALTH PROGRAM IN PHILADELPHIA**

The Council on Industrial Health of the American Medical Association in its "Industrial Health Bulletin" of September 15, 1943, describes the cooperative project of the Philadelphia County Medical Society, Chamber of Commerce, and Board of Trade. The purpose of this project is to improve the medical service in small plants of 250 or more employees. The seven steps of procedure followed in the Philadelphia plan are completely outlined in this bulletin.

**EFFICIENT USE OF AVAILABLE PERSONNEL**

A report of a recent month's work from the Los Angeles City Division of Industrial Hygiene indicates the method of service which must increasingly be applied as requests for industrial hygiene services multiply. The report states the case as follows;

COLEGE LIBRARY

"Due to the increased demand for our services in industry, emphasis is now being placed by this division on inspections and consultations rather than on detailed engineering studies involving long sampling and laboratory analyses. Except in those plants where the problem is not definite, this division is now proposing to make recommendations based on a minimum of sampling procedure. This procedure has been approved by the U. S. Public Health Service as a war emergency measure for accelerating the work of this division."

#### LOS ANGELES INDUSTRIAL UNION COUNCIL (CIO) HEALTH CONFERENCE

"Health Joins the CIO" was the theme of an all-day meeting of CIO delegates held in Los Angeles, September 19. A number of recommendations proposed by panels were adopted by the conference. The Industrial Health Panel urged that labor-management committees on health be set up in each plant as part of regular agreement procedures, and that health and safety clauses be included in union contracts. It was also voted that communications be sent to the Mayor of Los Angeles and the Governor of California recommending more complete staffs for the divisions of industrial hygiene in the city and county health departments.

The Medical and Hospital Care Panel made several proposals for the study of such problems as the continuing of the California Physician's Service in war housing projects, and local plans for prepayment medical and hospital care in relation to benefits for union members.

The Nutrition in Industry Panel recommended action in securing provisions for better in-plant feeding programs, and planning of nutrition education courses in cooperation with nutrition agencies. A Legislation Panel was concerned with the study of the Wagner-Murray-Dingell Bill.

A "Program for a Health Division" was discussed in another panel with the result that plans for a permanent Health Division with a full time executive were agreed upon. Establishment of a professional advisory committee to the Council Health Committee was also recommended.

#### PRE-EMPLOYMENT EXAMINATIONS

The problem of pre-employment screening examinations is discussed in an article entitled "Industrial Medicine--Dubious Practices," appearing in the September 1943 issue of the Journal of the Medical Society of New Jersey. The Chairman of the Committee on Industrial Health of the State Medical Society and a medical staff member of the New Jersey State Industrial Hygiene Service are the joint authors.

The increasing use of nurses and non-professional clinic assistants is the particular subject presented in this article. In some plants the nurses or clinic aides are instructed to make a general examination and to decide which individuals should be referred to the physician for further examination, it is stated. The authors believe that "This

problem which is now in its budding stage deserves the thoughtful attention of every physician. Plant physicians who are providing good medical care and examinations to workers can uphold the standards of the medical profession by discouraging such a substitute procedure. Such a precedent might well result in a series of substandard practices which would extend into the post-war period."

### AMERICAN ASSOCIATION OF INDUSTRIAL DENTISTS ORGANIZED

At the annual meeting of the American Dental Association in Cincinnati, October 10-14, a group of dentists engaged in industrial dentistry met and formed the American Association of Industrial Dentists. To be eligible for active membership a dentist must be actively engaged in the practice of industrial dentistry. Other dentists are eligible for associate membership.

At this meeting a constitution and by-laws were adopted and the following group of officers and directors were elected. The Board of Directors will consist of the officers and two associate members.

President:

C. R. Fricke,  
401 Butler Street,  
Etna, Pennsylvania.

President-Elect:

Ernest Goldhorn,  
11055 South Michigan Avenue,  
Chicago, Illinois.

Vice President:

Lt. James M. Dunning (DC) USMC,  
Metropolitan Life Insurance Co.,  
New York, New York

Secretary-Treasurer:

Powell C. Carrell,  
Medical Department,  
East Hartford Plant,  
Pratt-Whitney Aircraft Div.,  
United Aircraft Corporation,  
East Hartford, Connecticut.

Director:

Lyman D. Heacock,  
Dental Surgeon (R), USPHS  
Division of Industrial Hygiene,  
National Institute of Health  
Bethesda, Maryland

Director:

George A. Peters  
Dental Consultant  
Division of Industrial Hygiene,  
Illinois Dept. of Public Health,  
Chicago, Illinois

The next meeting of the new Association will be held at the time of the mid-winter meeting of the Chicago District Dental Society, to be held in February 1944.

### TRAINING COURSES

Training Course in Industrial Hygiene.--The University of Southern California is offering for the third time a 45-hour course in Industrial Hygiene under the auspices of its war training program, and in cooperation with the Los Angeles County Division of Industrial Hygiene.

The subject matter includes engineering and medical control of occupational diseases, safety programs, general problems of industrial workers, and health education.

Safety and Health Congress.--The first State-wide Safety and Health Congress to be held in Indiana is scheduled for November 4 and 5, at the Claypool Hotel, Indianapolis. The conference is sponsored by the Governor's Coordinating Safety Committee, various safety organizations in the State, and the War Department. It will include nine section meetings, one of which will deal with occupational diseases.

Industrial Nursing Courses.--Extension courses in industrial nursing under the auspices of the University of California are being given at Long Beach, San Diego, and Los Angeles this fall. The instructor is Mrs. H. K. Klump, former consultant in industrial nursing, Division of Industrial Hygiene, National Institute of Health.

#### TRANSLATION OF "MANUAL OF INDUSTRIAL HYGIENE"

Dr. Marcos Charnes, of Chile, one of the postgraduate fellow students of the Pan American Sanitary Bureau, is now translating the "Manual of Industrial Hygiene" into the Spanish language.

#### NEW MATERIALS

The Maritime Commission and the Navy have prepared a sound strip film entitled "Welders, to Your Health." Intended for shipyard workers, the film is also suitable for construction workers and others engaged in welding operations. The running time is about 25 minutes. The film is available for loan from the four regional offices of the U. S. Maritime Commission located at the following addresses:

1015 Chestnut Street, Philadelphia, Pennsylvania  
348 Baronne Street, New Orleans, Louisiana  
310 South Michigan Avenue, Chicago, Illinois  
Financial Center Building, Oakland, California

-0-

The Planned Parenthood Federation of America, Inc., can provide to industries and other agencies concerned with the problems of married women workers materials which give suggestions for meeting them. A particularly useful pamphlet entitled "Employing the Married Woman Worker" is enclosed with this bulletin.

-0-

"What Would You Pay for 8,000 Years' Experience?" is the title of a folder prepared by the Division of Labor Standards, U. S. Department of Labor, explaining the program of War Safety Training under the auspices of the National Committee for the Conservation of Manpower in War Industries. Copies are available from the U. S. Department of Labor.

"Industrial Hygiene and Plant Efficiency Through Good Lighting," a statement of American Recommended Practice of Industrial Lighting, approved by the American Standards Association, has been reprinted by the Division of Labor Standards, U. S. Department of Labor. Requests should be addressed to that agency.

-0-

The War Production Drive Section of the War Production Board is publishing a weekly newspaper for the benefit of Labor-Management Committees, entitled "The Labor Management News." New L-M Committees are listed each week. Announcements and stories concerning labor-management cooperation in the field of health and safety will be included among its news.

#### INDUSTRIAL NURSES MEET AT NATIONAL SAFETY COUNCIL CONFERENCE

At the recent annual meeting of the National Safety Council consideration was given to the forming of an industrial nursing section in the Council. In the session devoted to industrial nursing, temporary officers were elected and it was decided to present a petition requesting formal recognition of a nursing section by the Council.

Prior to this conference, industrial nursing consultants in the States included in U. S. Public Health Service District #3, with the addition of two from District #7, met to exchange views regarding their respective programs and methods.

#### STATE ACTIVITIES

ILLINOIS: The third issue of a publication entitled "What's New in Industrial Hygiene," prepared by the Division of Industrial Hygiene, Illinois Department of Public Health, has recently been made available to industrial health personnel in Illinois. This publication gives a comprehensive summary of important developments of the past few months.

SOUTH CAROLINA: An Industrial Nurses Section was organized in June and attended by nurses from over the entire State.

NEW HAMPSHIRE: The New Hampshire Division of Industrial Hygiene is assisting in the organization of health committees in many industries in the State. In one large plant the committee gives a day a month to visiting various parts of the plant to study complaints and observe conditions needing adjustments.

MISSISSIPPI: Attractive health folders are being prepared by the Mississippi Board of Health especially for industrial workers. Samples of these can be obtained by writing to the Executive Officer, Mississippi Board of Health, or to the Division of Industrial Hygiene.

MARYLAND: The September issue of "Baltimore Health News," published by the Baltimore City Health Department is entirely devoted to industrial hygiene. A supplement to this issue is a publication entitled "Occupational Disease Control," which gives the schedule of occupational diseases for which compensation shall be payable, the law covering health department responsibilities, and rules and regulations for control and prevention of occupational diseases, and new State legislation.

An amendment to the State law, effective on June 1, 1943, provides penalties for non-compliance with the rules and regulations previously adopted for control and prevention of occupational diseases. A fine of not more than \$100, for each day that violation of the regulations continues after written notice of the violation has been given, is the penalty imposed.

RHODE ISLAND: The Rhode Island Society of Industrial Physicians and Surgeons and the newly formed Rhode Island Industrial Nurses Club held their first joint meeting of the 1943-44 season on October 19.

#### STANDING ORDERS FOR NURSES IN INDUSTRY

The Council on Industrial Health of the American Medical Association has prepared standing orders for industrial nurses "which can be adapted to meet the requirements of individual industrial medical departments." These have been published in the August 28, 1943, issue of the Journal of the American Medical Association, and in the October 1943 issue of Industrial Medicine.

#### GOVERNMENT COMMITTEE ON INDUSTRIAL FEEDING

The War Food Administration has announced an expansion of the industrial feeding program with the formation of an Inter-Agency Committee which includes representatives of the War Food Administration, War Production Board, Office of Price Administration, and War Manpower Commission.

The industrial feeding program, as approved by the Inter-Agency Committee on Food for Workers, includes:

1. Provision of food.
2. Provision of materials, equipment, and operating supplies needed for the feeding program. This involves the full use of second-hand and installed equipment.
3. Adjustment of manpower requirements for food services and for production of necessary materials, equipment and operating supplies, stabilization of employment in and training of employees for restaurants and in-plant food services where necessary.

4. Nutrition education conducted on a national scale as an integral part of the war food program, enlisting the cooperation of all federal agencies concerned, State and local government agencies and nutrition committees, labor, management, professional and trade groups, at all levels. Nutrition education would be conducted in all war plants. Nutrition education and in-plant food service operations would be integrated.

5. The establishment of food service standards to conserve food, equipment, and manpower.

6. Maintenance of prices of prepared food at reasonable levels.

#### AMERICAN STANDARDS ASSOCIATION PUBLICATIONS

Recent additions to the series of publications giving standards for allowable concentrations of various toxic substances important in war production published by the American Standards Association, 29 West Thirty-ninth Street, New York City, are as follows:

Allowable Concentration of Metallic Arsenic and Arsenic Trioxide, Z37.9-1943.

Allowable Concentration of Xylene Z37.10-1943.

#### PERSONNEL

Dr. D. M. Macpherson was appointed to the Bureau of Industrial Health, California State Department of Public Health, on August 6.

Dr. F. E. Ballard was recently appointed Director of the Los Angeles City Division of Industrial Hygiene. He was formerly on the staff of the California State Bureau of Industrial Health.

Miss Verle Baker, R. N., has been appointed Industrial Nursing Consultant in the Utah Division of Industrial Hygiene.

Miss Catherine Webster, R. N., is the new Industrial Nursing Consultant in the Oregon Division of Industrial Hygiene.

Mrs. Lula B. Lamm, R. N., has been appointed District Consultant Industrial Health Nurse for the northern section of South Carolina, effective August 1. Mrs. Rosa H. Clarke is Consultant Industrial Health Nurse for the southern section of South Carolina.

Dr. R. F. Buchan, Assistant Surgeon (R), has been assigned to the Connecticut Department of Health for industrial hygiene duty.

Dr. Edward Aston has been appointed Dental Consultant in the Pennsylvania State Bureau of Industrial Hygiene.

Dr. Leland H. Evans, Past Assistant Dental Surgeon (R), has been assigned to the Missouri Board of Health to serve as Consultant in Industrial Dentistry.

COOPERATIVE ACTIVITIES OF THE DIVISION OF INDUSTRIAL  
HYGIENE, U. S. PUBLIC HEALTH SERVICE, AND THE STATES

A survey of the industrial health activities of the Denver Industrial Area has recently been made by Richard T. Page, Assistant Sanitary Engineer, and Victoria M. Trasko, Assistant Statistician. This survey was undertaken at the request of the District #8 office, which is serving as consultant for the Denver Metropolitan Planning Project.

Miss F. Ruth Kahl, Public Health Nursing Consultant, has visited the States of Kansas, Iowa, Wisconsin, and Indiana during September and October to advise on industrial nursing programs.

John J. Bloomfield, Senior Sanitary Engineer, has visited the West Virginia and Massachusetts industrial hygiene divisions. In Massachusetts, he addressed the New England Industrial Nurses Association and lectured to the students at Simmons College studying the "Principles of Industrial Nursing."

Dr. F. H. Goldman, Senior Chemist, has surveyed the laboratory services of the New Jersey and New York State industrial hygiene divisions.

Miss Elna I. Perkins, Associate Health Education Specialist, visited the New Jersey Industrial Hygiene Service in October.

Dr. Lyman D. Heacock, Dental Surgeon (R), accompanied Dr. L. H. Evans to Missouri to initiate an industrial dental program.

DERMATOSES INVESTIGATIONS

An outbreak of dermatitis among workers making canvas life rafts was investigated at the request of the Quartermaster Department and was found to be caused by an antimildew used on the canvas. Recommendations for prevention were made.

At the request of the Navy, a preparation for use on oil contaminated burns was developed and submitted for trial.

News items for Publication in INDUSTRIAL HYGIENE should be submitted to: Senior Sanitary Engineer J. J. Bloomfield, Division of Industrial Hygiene, National Institute of Health, Bethesda 14, Maryland.



## NEW PUBLICATIONS

(Supplement to Publications List of Division of Industrial Hygiene,  
National Institute of Health, U. S. Public Health Service, October 1943)

DEVELOPMENT OF INDUSTRIAL HYGIENE IN STATE AND LOCAL HEALTH DEPARTMENTS. J. J. Bloomfield. Pacific Science Congress of the Pacific Science Association, Proceedings, 6: 15-23 (1939). Berkeley and Los Angeles: University of California Press (1943).

INDUSTRIAL HYGIENE IN WAR INDUSTRIES. J. J. Bloomfield. J. Mich. State Med. Soc., 42: 699-706 (Sept. 1943).

THE BINDING OF SULFONAMIDE DRUGS BY PLASMA PROTEINS, A FACTOR IN DETERMINING THE DISTRIBUTION OF DRUGS IN THE BODY. B. D. Davis. J. Clin. Inves., 22: 753-62 (Sept. 1943).

BROMIDE CONTENT OF CERTAIN FOODSTUFFS FUMIGATED WITH METHYL BROMIDE. II. H. C. Ludley, R. K. Sayers, and P. A. Neal. Pacific Science Congress of the Pacific Science Association, Proceedings, op. cit., pp. 159-63.

CUTTING OIL DERMATITIS. Louis Schwartz. Trained Nurse & Hosp. Rev., 111: 194-98 (Sept. 1943).

DERMATITIS FROM NEW SYNTHETIC RESIN FABRIC FINISHES. Louis Schwartz. Rayon Textile Monthly, 24: 309-13 (June 1943). Reprinted from J. Inves. Dermatol., 4: 460-70 (Dec. 1941).

OCCUPATIONAL ACNE. Louis Schwartz and S. M. Peck. J. N. Y. State Med. Soc., 43: 1711-13 (Sept. 15, 1943).

A NEW TEST FOR THE DETECTION AND THE APPRAISAL OF EXPOSURE TO TRINITROTOLUENE. R. K. Snyder and W. F. von Oettingen. J. Am. Med. Assoc., 123: 202-3 (Sept. 25, 1943).

PRESENT STATUS OF MEDICAL PROGRAMS IN WAR INDUSTRIES. J. G. Townsend. J. Mich. State Med. Soc., 42: 694-99 (Sept. 1943).

ON SPECIFIC PROPERTIES OF CARBON MONOXIDE ASPHYXIA. W. F. von Oettingen. Pacific Science Congress of the Pacific Science Association, Proceedings, op. cit., pp. 37-42.

THE PLACE OF DENTISTRY IN INDUSTRIAL HEALTH PROGRAMS. L. D. Heacock. Ind. Med., 12: 672-80 (Oct. 1943).

THE ACUTE TOXICITY OF VAPORS OF CERTAIN SOLVENTS CONTAINING APPRECIABLE AMOUNTS OF BENZENE AND TOLUENE. J. L. Svirbely, R. C. Dunn, and W. F. von Oettingen. J. Ind. Hyg. & Toxicol., 25: 366-73 (Oct. 1943).

EFFECTS OF REPEATED EXPOSURES OF RATS TO VAPORS OF MONOALKYL ETHYLENE GLYCOL ETHERS. H. W. Werner, C. Z. Nawrocki, J. L. Mitchell, J. W. Miller, and W. F. von Oettingen. J. Ind. Hyg. & Toxicol., 24: 374-79 (Oct. 1943)

REPRINTS FROM PUBLIC HEALTH REPORTS AVAILABLE

- No. 2472 An outbreak of dermatitis from airplane engine covers.  
Louis Schwartz.
- No. 2483 Dermatitis from resin glue in war industries. Louis Schwartz,  
S. M. Peck, and J. E. Dunn.
- No. 2484 Activities of State and local industrial hygiene services in  
a war year. V. M. Trasko.
- No. 2485 The effect of arsenates on the storage of lead. L. T.  
Fairhall, J. W. Miller, and F. L. Weaver.
- No. 2487 Studies on the duration of disabling sickness. IV. Duration  
of disability from the nonrespiratory-nondigestive diseases  
among male employees, with particular reference to the older  
worker. W. E. Gafafer and Rosedith Sitgreaves.
- No. 2490 Effect of lead absorption on blood calcium. W. V. Jenrette  
and L. T. Fairhall.
- No. 2496 Studies on strains of Aerobacter cloacae responsible for  
acute illness among workers using low-grade stained cotton.  
B. H. Caminita, R. Schmeiter, R. W. Kolb, and P. A. Neal.
- No. 2497 A soap which indicates the presence of mercury fulminate.  
H. S. Mason and Isadore Botvinick.