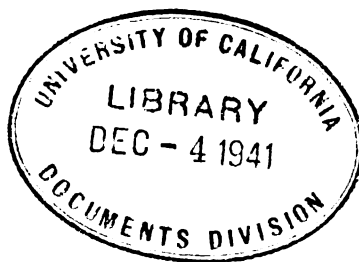


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INDUSTRIAL HYGIENE

Current News of Official Industrial Hygiene Activities



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INDUSTRIAL LIBRARY

NATIONAL DEFENSE

Investigations of Health Hazards in Government-Owned Contract-Operated Ordnance Plants

Twenty more Government-owned contract-operated ordnance plants have been certified by the Office of the Chief of Ordnance of the War Department for investigation by the Division of Industrial Hygiene, National Institute of Health, thereby bringing the total number of such plants in which industrial health studies are to be made to 56. Medical and engineering studies have already been completed in the Detroit Ordnance Plant, Detroit, Michigan; the Elwood Ordnance Plant, Joliet, Illinois; and in the Wolf Creek Ordnance Plant, Milan, Tennessee. Studies are now under way in the Indiana Ordnance Works, Charlestown, Indiana; the Iowa Ordnance Plant, Burlington, Iowa; and the Radford Ordnance Works, Radford, Virginia.

Inspection of Industrial Hygiene Activities in Three Southern States

Dr. J. G. Townsend, Chief of the Division of Industrial Hygiene, National Institute of Health, and Mr. J. J. Bloomfield, Chief of the States' Relations Section, recently visited Alabama, Louisiana, and Texas to appraise the present facilities of these States for providing industrial hygiene services to defense industries. Arrangements were made to lend equipment to the industrial hygiene bureau in Alabama and to lend personnel to the Texas bureau. The Louisiana State health department is to establish an industrial hygiene section in its division of preventive medicine beginning the first of next year. The Public Health Service will lend the new section personnel and equipment.

Survey of Medical Services in Industry

The nation-wide survey of medical service facilities in industry, which is being directed by Dr. W. J. McConnell of the Metropolitan Life Insurance Company in his capacity as a consultant to the U. S. Public Health Service, is now in its preliminary or trial stage. At present, Dr. McConnell is surveying a number of industries in Pennsylvania to determine whether the proposed procedure and form for recording the data are adequate to the purposes of the survey. Any deficiencies in the procedure or form will be corrected before continuing the survey on a national scale.

NATIONAL DEFENSE

Activities of State and Local Industrial Hygiene Bureaus During Three-Month Period, July-September 1941

An analysis of the monthly reports of 20 industrial hygiene bureaus in State and local health departments shows that for the 3-month period, July-September 1941, industrial health surveys or inspections were made in 1,023 plants employing 402,000 workers, and engineering or medical studies were made in an additional 206 plants employing 65,000 workers. The total number of plants and workers covered by investigations during the 3-month period was 1,229 and 467,000 respectively. Follow-up visits are not included in these totals. Recommendations for improvements were made concerning 129,000 persons and were reported as accomplished for approximately 71,000.

Other activities included routine laboratory analyses, consultation services, lectures, and publication of pamphlets on various industrial health topics.

Ninety Percent of Research Section's Work Pertains to National Defense

During the current year, the Research Section of the Division of Industrial Hygiene, National Institute of Health, has been engaged in over 125 research projects, and at present, has 91 such projects in progress. These studies concern the toxicology of organic substances; the toxicology of inorganic substances; industrial pathology and bacteriology; analytical methods and services; changes in pressure, temperature, and humidity including aviation medicine; and physics (physical methods). Some of these problems will be completed during the current year, and 25 additional problems have been outlined for investigation in the near future.

Over 90 percent of the present work of the Research Section is associated with problems pertinent to national defense. Particular emphasis is being placed on studies of the toxicity of substances such as explosives, solvents, metals used in airplane and munitions manufacture, and components of synthetic rubbers and plastics, and on investigations relating to the effects of high altitudes and crowded living conditions, as well as to the development of field instruments for the detection and measurement of toxic dusts, fumes, and gases.

One of the most important problems under investigation is that of the toxicity of explosives. At present, the study is limited to determining the toxic effects of explosives administered by mouth. However, as soon as an experimental chamber now under construction has been completed, the scope of the study will be extended to include the determination of the toxic effects of vapors, fumes, and dusts.

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New Facilities for Research in Aviation Medicine Now Under Construction

A temporary building, approximately 40 feet by 50 feet and one story high, is being constructed adjacent to the laboratories of the Division of Industrial Hygiene at Bethesda, Maryland, to house new facilities for research on problems of aviation medicine. This building is intended primarily for a new low-pressure low-temperature chamber and accessory refrigerating equipment for the purpose of testing apparatus of all kinds used by aircraft personnel, including oxygen equipment, clothing, etc. The new decompression chamber is expected to provide simultaneous rapid lowering of temperature and pressure to simulate ascent from the ground at atmospheric pressure and 70° F. temperature to an altitude pressure equivalent to 45,000 feet and a temperature of -70° F. The rapid change of temperature and pressure obtainable will exceed that encountered in ascent by any modern aircraft. The new installation is expected to equal or exceed the performance of the only other installations of this kind now in operation, one at Toronto at the Banting Institute and the other at Wright Field.

In addition to the work on apparatus and equipment for aircraft personnel, studies are being made on the effects of sudden decompression to low pressures, the effects of anoxia, and the influence of altitude exposure on visual function.

Assistance to T. V. A.

Associate Chemist Warren H. Reinhart, of the Division of Industrial Hygiene, National Institute of Health, is now on loan to the Tennessee Valley Authority for an indefinite period to assist with the engineering control of health hazards associated with the construction of a hydroelectric project. Exposures to dust and to carbon monoxide are the principal health problems on this project.

Physicians With Industrial Medical Experience Available

Recently the Surgeon General of the U. S. Public Health Service had an announcement published in the American Medical Association Journal, and also posted in many of the hospitals throughout the country, in which he explained that there is a need for physicians to practice in some of the defense areas. A number of the physicians who replied to the announcement are interested in or have had experience in industrial medicine. Organizations that may be interested in engaging the services of such physicians may obtain information in regard to these physicians from Mr. George St. J. Perrott, Chief, Division of Public Health Methods, National Institute of Health, Bethesda, Maryland.

NATIONAL DEFENSE

Distinguished Visitors

Sir Wilson Jameson, Chief Medical Officer of the British Ministry of Health, and Dr. W. A. McIntosh, of the International Health Division of the Rockefeller Foundation, recently visited the laboratories of the Division of Industrial Hygiene, National Institute of Health, Bethesda, Maryland.



NURSING SERVICES IN INDUSTRY

Committee To Study the Duties of Nurses in Industry Meets

On November 23, the Committee to Study the Duties of Nurses in Industry, of the Public Health Nursing Section, American Public Health Association, met in New York City to discuss the further conduct of the study which is being made in cooperation with the Division of Industrial Hygiene, National Institute of Health. In addition to the members of the Committee, representatives from industrial nurses' associations in Western Massachusetts, New York City, New Jersey, Connecticut, Indiana, and Delaware attended the meeting.

At this meeting, suggestions were made for revising the form used in the preliminary survey of the duties of nurses in industry (see October 1941 issue of this news letter for summary of the results of this survey), and the procedure to be used in collecting the data was determined. The Committee voted to enlarge its membership by inviting representatives from the American Nursing Association and from the National League of Nursing Education to participate, and to establish a consultant board composed of representatives from the American Association of Industrial Physicians and Surgeons, the American Industrial Hygiene Association, the American Medical Association's Council on Industrial Health, the National Conference of Governmental Industrial Hygienists, and the National Association of Manufacturers' Committee on Healthful Working Conditions.

The study will get under way in January 1942 and will require approximately 1 year to complete.

"Industrial Nurse" Supplement to "Industrial Medicine"

"Industrial Medicine," the official publication of the American Association of Industrial Physicians and Surgeons, in its November 1941 issue initiated a quarterly supplement under the title of "Industrial Nurse." The supplement is to be the industrial nurses' journal, the medium through which the industrial nurse can express

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what she has to say concerning her professional interests, her experiences, ideas, suggestions, and opinions. The supplement will appear in the November, February, May, and August issues of each year.

Consultant Nurse on Loan to Georgia

Miss Mary G. Devine, Acting Consultant Nurse, is now on loan from the U. S. Public Health Service to the Industrial Hygiene Service of the Georgia State Department of Public Health.

Standard Oil Company Nurse Visits Division of Industrial Hygiene

Miss Pauline Kuehler, industrial nurse at the Standard Oil Company's refinery in Whiting, Indiana, recently visited the Division of Industrial Hygiene, National Institute of Health, Bethesda, Maryland, in order to observe the work of the Division, particularly as it relates to the promotion of public health nursing in industry.

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GENERAL

Date Set for 1942 Meeting of the National Conference of Governmental Industrial Hygienists

The executive committee of the National Conference of Governmental Industrial Hygienists recently set the date for the fifth annual meeting of the Conference. The meeting will be held on April 9-11, 1942 in Washington, D. C. This date was selected in order that industrial hygienists who wish to do so, can attend this meeting and the annual meetings of the American Association of Industrial Physicians and Surgeons and of the American Industrial Hygiene Association, which will be held in Cincinnati, Ohio, April 13-17, 1942.

American Standard for Safety in Electroplating Operations

The American Standards Association recently approved a new American Standard for Safety in Electroplating Operations (Z9.1-1941). The standard outlines requirements for the protection of workers in those electroplating operations which may injure the health of operators through contact with gases, mists, or liquids. It applies to electroplating and deplating operations and to the

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anodizing of metals, and describes standard exhaust systems and methods for personal protection of the operator. Other requirements for electroplating and deplating processes, and uniform practices for the conduct of the work in order to reduce possible hazards to health are also given.

Copies of the standard may be obtained from the American Standards Association, 29 West Thirty-ninth Street, New York, N. Y., at 30 cents each.

Arkansas Industrial Hygiene Program to Start in January

With the completion of a new building to house its offices and laboratories expected in mid-January, the Arkansas State Board of Health is preparing to swing into action on an industrial hygiene program authorized by the State's occupational disease law adopted by referendum last November. The U. S. Public Health Service will lend the Board of Health a doctor, an engineer, and a chemist.

Maryland Establishes State Industrial Hygiene Division

In accordance with authority granted it by the 1939 State legislature, the Maryland State Department of Health recently established a division of industrial hygiene and allotted \$10,500 for industrial hygiene activities during the State's current fiscal year, which began October 1. The State Department of Health will employ a physician-director for the new division, and the Division of Industrial Hygiene, National Institute of Health, will lend the division an engineer and a chemist.

Industrial Health Regulations Approved in Colorado

The Colorado State Board of Health recently approved codes and regulations, previously adopted by the Industrial Hygiene Division of the Colorado State Division of Public Health, relating to the control of processes, materials, and conditions known to have adverse effects on the health of workers, and to the establishment of threshold limits of certain dusts, fumes, mists, vapors, and gases. The Board of Health also approved a regulation prohibiting the use of mercurial carotting compounds in Colorado hatters' fur cutting and fur felt hat manufacturing plants after December 1, 1941.

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W. P. Yant of Mine Safety Appliances Company Elected Chairman of the Industrial Hygiene Section of the American Public Health Association

At the American Public Health Association's annual meeting in Atlantic City, October 14-17, 1941, Mr. W. P. Yant of the Mine Safety Appliances Company, Pittsburgh, Pennsylvania, was elected chairman of the Industrial Hygiene Section of the Association. Dr. J. G. Townsend and Mr. J. J. Bloomfield, both of the Division of Industrial Hygiene, National Institute of Health, Bethesda, Maryland, were elected vice chairman and secretary of the Section, respectively. Other members of the Section Council include Dr. W. J. McConnell of the Metropolitan Life Insurance Company, Dr. C. D. Selby of the General Motors Corporation, Mr. C. D. Pool of the U. S. Naval Reserve, Dr. Leonard Greenburg of the Division of Industrial Hygiene, New York Department of Labor, and Dr. Leverett D. Bristol of the American Telephone and Telegraph Company.

In addition to the four regular sessions held by the Section, a joint session was held with the Public Health Nursing Section of the Association, and a luncheon session was held at which committee reports were presented. The reports of the Committee on Pneumoconiosis, the Committee on Industrial Anthrax, the Committee on Volatile Solvents, and the Committee on Lead Poisoning are to be published in the Association's 1941-42 Year Book.

Industrial Hygiene Foundation Now Offers Associate Membership

The Board of Trustees of the Industrial Hygiene Foundation of America, Inc. (formerly Air Hygiene Foundation) recently authorized a new membership classification, that of associate membership. The reason that it was necessary to establish such a membership is that the demand on the Foundation for its publications has been so great that it has become impossible for the Foundation to continue to distribute them free of charge.

Associate membership costs \$15.00 per year and entitles the holder of such a membership to one copy of each publication issued by the Foundation. State and local bureaus of industrial hygiene, departments of health, departments of labor, medical or industrial hygiene units of the Army and Navy, public libraries, universities, and other public institutions are eligible for associate membership. Any unit may take out more than one membership. Individuals whose primary activity is in the field of industrial hygiene, with the exception of those who are employees of companies that are eligible to regular membership in the Foundation, also may become associate members.

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Catalog of Trade Names of Toxic Materials Suggested

Several State industrial hygiene bureaus have compiled catalogs of the trade names of toxic materials used in industry. Massachusetts, for example, has compiled a list which gives the trade name of each material, its chemical composition, and the name of the manufacturer. It has been suggested that some arrangement for exchanging lists between the various industrial hygiene bureaus could be made to the mutual advantage of the bureaus.

The Division of Industrial Hygiene, National Institute of Health, has offered its services for the compilation of a master catalog which could be made available to all the industrial hygiene bureaus. Before undertaking the project, however, it is necessary to know whether the bureaus which have such lists would be sufficiently interested to cooperate by furnishing copies of them to the Division of Industrial Hygiene. Comments on such a project should be addressed to Sanitary Engineer J. J. Bloomfield, Chief, States' Relations Section, Division of Industrial Hygiene, National Institute of Health, Bethesda, Maryland.

Dermatitis from "Flame-Proof" Coverings on Electric Wires

The Indiana Bureau of Industrial Hygiene recently has observed 178 cases of dermatitis due to chlorinated naphthalenes and chlorinated diphenyls. The dermatitis was caused by handling electric wires having "flame-proof" coverings consisting of a synthetic wax composed of these materials. In one plant, where 168 cases were observed, the offending material was shown to contain chlorinated naphthalene primarily. In another plant, where the other 10 cases were observed, the offending material was chlorinated diphenyls.

The Indiana bureau reports that there is a wide demand for "flame-proof" coverings on electric wires, especially in some of the defense industries, and suggests that "one should be on the lookout for these materials, especially when one sees dermatitis of face and hands due to handling electric wire."

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EDUCATION

A Reminder to State and Local Industrial Hygiene Bureaus That A Transcribed Radio Program Is Available for Their Use

One director of an industrial hygiene bureau, who needed material for a local radio program, forgot that the U. S. Public Health Service has prepared a transcribed radio program for the use of such agencies. Since one director's memory was short, it is just possible that there are other directors of industrial hygiene bureaus who need to be reminded that transcriptions of an industrial hygiene radio program, entitled "Men and Machines," are now available for loan to State and local health departments and should be ordered from: The Radio Script and Transcription Exchange, U. S. Office of Education, Washington, D. C.

Industrial hygiene bureaus will be passing up a good thing if they don't use this program for workers' health education activities and for publicity as to the services which they have to offer to industries in their communities or States.

Vermont "Yours for Health" Clubs Gain Momentum

Seventy-three plants in Vermont are now participating in the "Yours for Health" program, a State-wide plan for the health education of workers which was launched last spring by the Vermont Division of Tuberculosis and Industrial Hygiene. Approximately 1,200 workers have become members of this no-dues, no-fees organization and are receiving health literature from the Division and from the State Department of Health. "Yours for Health" advisory committees of workers have been established in 11 plants, and those plants which have not yet formed committees are being urged to do so. Mr. Harold W. Slocum, Director of the Division of Tuberculosis and Industrial Hygiene, reports an increasingly favorable response to the program.

Iowa Institute on Industrial Health

The last of a series of special institutes on industrial health, sponsored by the Speaker's Bureau and the Committee on Industrial Health of the Iowa State Medical Society, the Scott County Medical Society, and the Iowa State Department of Health, will be held in Davenport, Iowa on December 2, 1941. Earlier this year, eight similar institutes, which were held in as many Iowa cities, were attended by more than 1,250 industrialists and physicians.

NEW PUBLICATIONS

Soft Coal Miners Health and Working Environment. R. H. Flinn, H. E. Seifert, H. P. Brinton, and J. L. Jones and R. W. Franks. Pub. Health Bull. No. 270. Washington: Gov. Print. Office (1941). 118 pp.

This bulletin reports the results of medical and engineering studies of three representative bituminous coal mines in the State of Utah. A summary of the results of a general sanitary survey of these mines and the communities in which the workers live is also included.

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Studies on the Mechanism of Carbon Monoxide Poisoning As Observed in Dogs Anesthetized with Sodium Amytal. W. F. von Oettingen, D. D. Donahue, P. J. Valaer, and J. W. Miller. Pub. Health Bull. No. 274. Washington: Gov. Print. Office (1941). 50 pp.

This bulletin reports the results of experiments to determine the effect of various concentrations of carbon monoxide on the systemic arterial and venous pressure, the heart rate, the respiratory rate, the minute and respiratory volume, and the intracranial and spinal pressure. In addition, the concentrations of carbon dioxide, oxygen, carbon monoxide and, in some instances, also of inorganic phosphorus in the blood were determined at certain stages of the poisoning. The effect of the narcotic agent (sodium amytal) alone, was studied in the same way. All experiments were performed with dogs.

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Health Status of Adults in the Productive Ages. D. E. Hailman. Pub. Health Repts. 56, 2071-2087 (Oct. 24) 1941.

The author discusses the health status of men and women in the productive ages, 20-64, as measured with data based on the National Health Survey (1935-36).

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Hydrofluosilicic Acid Method for Determination of Quartz. F. H. Goldman. Ind. & Eng. Chem., Anal. Ed. 13, 789-791 (Nov. 15) 1941.

A method for the analysis of the quartz content of granular material using hydrofluosilicic acid, which has been extended to include "settled dusts," is described.

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