



INDUSTRIAL HYGIENE

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Investigation of Health Hazards in Industrial Plants Operated
by the War Department

By the end of July, medical and engineering studies had been completed in 18 of the 27 industrial military establishments certified by the War Department for investigation by the Division of Industrial Hygiene, National Institute of Health. Reports on 12 of the studies have already been submitted to the Surgeon General of the Army.

Establishments investigated during June and July included: Curtis Bay Ordnance Depot, South Baltimore, Maryland; Raritan Arsenal, Metuchen, New Jersey; Delaware Ordnance Depot, Pedricktown, New Jersey; Philadelphia Quartermaster Depot, Philadelphia, Pennsylvania; Wright Field, Dayton, Ohio; Patterson Field, Fairfield, Ohio; Erie Proving Ground, Lacarne, Ohio; and arsenals at Springfield, Massachusetts, Watertown, Massachusetts, and Watervliet, New York.

Establishments now being investigated include: Aberdeen Proving Ground, Aberdeen, Maryland; Middletown Air Depot, Middletown, Pennsylvania; San Antonio Ordnance Depot, Normoyle Quartermaster Depot, Duncan Field, and Kelly Field, all at San Antonio, Texas; and Jeffersonville Quartermaster Depot, Jeffersonville, Indiana.

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Contract-Operated Plants to be Studied by Division
of Industrial Hygiene

The War Department has requested the Division of Industrial Hygiene, National Institute of Health, to conduct studies of industrial health hazards in Government-owned but privately operated defense plants. The responsibility for the evaluation and control of health hazards in such plants is thereby definitely placed upon the Division of Industrial Hygiene, rather than upon the State industrial hygiene units. This decision should dispel any doubt or confusion on the question of responsibility which has arisen in the various State units.

Work in the contract-operated plants will begin early in October after the Division has completed its studies of Government-operated plants.

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Regional Inspection of State Industrial Hygiene Activities

Dr. J. G. Townsend, Chief of the Division of Industrial Hygiene, and Mr. J. J. Bloomfield, Chief of the States' Relations Section, have begun a series of visits to the various State industrial hygiene bureaus in order to determine the progress and need of these bureaus with relation to defense activities. During the week of July 21, Dr. Townsend and Mr. Bloomfield visited the New England States and conferred with the State health officers and the directors of the industrial hygiene bureaus on industrial hygiene budgets for the 1942 fiscal year, on ways of obtaining unbudgeted or surplus funds, and on ways of expanding industrial hygiene activities in the respective States. Arrangements were made to lend additional personnel to several of these States.

The far Western States, namely, California, Idaho, Montana, Washington, Utah, and Colorado are being visited during the latter half of August.

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Orientation Course Now in Fifth Session

The orientation course in Public Health Service procedures in field and States' relations activities which was started in April under the direction of Dr. Mark V. Ziegler, Director of Public Health Service District No. 2, is now in its fifth session. More than 200 professional public health workers have been trained thus far, among whom were 18 industrial hygienists.

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Workers' Health Education Program

Mrs. Elizabeth G. Pritchard, Associate Health Education Specialist, Division of Sanitary Reports and Statistics, has been assigned part time to the Division of Industrial Hygiene in connection with its program for the development, production, and promotion of industrial hygiene educational activities for the industrial worker and the general public.

Mrs. Pritchard, in cooperation with the States' Relations Section, has already developed a program for the 1942 fiscal year which has been approved by Dr. J. G. Townsend, Chief of the Division of Industrial Hygiene, and by Dr. E. R. Coffey, Chief of the Division of Sanitary Reports and Statistics. The program calls for the production of 8 color posters, 16 workers' health leaflets (8 on industrial health problems and 8 on nonindustrial health problems), a series of photographs illustrating industrial hygiene work, exhibits, radio transcriptions, and possibly a motion picture.

The 8 nonindustrial topics on which leaflets will be published are: (1) Stomach trouble; (2) pneumonia; (3) arthritis, rheumatism, and related ailments; (4) nutrition; (5) health of women workers; (6) mental health; (7) heart trouble; and (8) kidney diseases. The industrial topics are: (1) Preemployment and routine medical examinations; (2) dermatoses; (3) changes in temperature and high humidity; (4) good housekeeping on the job; (5) infection of minor wounds; (6) dusts; (7) lead poisoning; and (8) hydrogen sulfide.

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Dr. W. J. McConnell Reports for Duty

On August 7, 1941, Dr. W. J. McConnell, Assistant Medical Director, Metropolitan Life Insurance Company, reported for duty as a consultant to the Division of Industrial Hygiene, National Institute of Health. The procedure to be used in the nation-wide survey of present-day medical service facilities in industry, which Dr. McConnell will direct, was tentatively agreed upon. It is anticipated that the State and local industrial hygiene bureaus will be able to provide valuable assistance in the conduct of this survey.

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Annual Report Forms Adopted

On August 5, the Committee on Records and Reports of the State and Territorial Health Officers officially adopted the forms developed by the National Conference of Governmental Industrial Hygienists for annual reports of State industrial hygiene activities. The forms will be used to incorporate the annual reports of the State industrial hygiene bureaus in the annual reports which are submitted to the U. S. Public Health Service by the State departments of health under Title VI of the Social Security Act.

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Citric Acid Dust

Dr. John M. McDonald, Director of the Baltimore Bureau of Occupational Diseases, offers some information on the effect of citric acid dust on teeth in response to a query which appeared in the May issue of this news letter. Dr. McDonald made inquiries of the plant physician of a Baltimore firm which uses large quantities of citric acid. The physician was of the opinion that the grinding of citric acid had considerable effect on the teeth of the men employed in this process, and in particular, that tooth decay was much accelerated by citric acid dust. No data with respect to the concentrations of this dust in the air were available, however.

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Dust!

Dr. R. B. Aiken, of the Vermont industrial hygiene bureau, has designed a white-on-black poster for display in the granite-cutting industry. The poster, which has been found to be very effective, shows a thimble beside a large mound of dust and carries the caption --"17 Thimbleful of granite dust may be inhaled into your lungs in 24 working days--USE YOUR SUCTION!"

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Industrial Hygiene's Loss is the Army's and Navy's Gain

Two well-known State industrial hygienists have left official industrial hygiene work within the past month to assume posts with the Army and Navy, respectively.

Mr. R. W. Franks, formerly of Utah, has been called to active duty in the Chemical Warfare Service of the U. S. Army, with headquarters at Edgewood Arsenal, Edgewood, Maryland. Mr. Charles L. Pool, formerly of Rhode Island, is now a lieutenant commander in the Civil Engineering Corps of the U. S. Navy. Mr. Pool is undergoing training at Newport, Rhode Island.

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University of Chicago Announces New Course for Public Health Nurses

A new course in industrial health, with special emphasis on the role of the public health nurse, is being offered through Nursing Education, The University of Chicago. The course will be given during the autumn and winter quarters, 1941-42, on Wednesday evenings from 7:50 to 9:30, at University College, 18 South Michigan Avenue. It will include a study of the origin and development of industrial health programs and present-day objectives, organization, and activities. Experts in the field of industrial health will participate in the course.

Further information may be obtained from Miss Eula B. Butzerin, Associate Professor of Public Health Nursing, Division of the Biological Sciences, University of Chicago, Chicago, Illinois.

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New Publications

K O by CO Gas. Workers' Health Series--No. 3. Federal Security Agency, U. S. Public Health Service. Washington: Gov. Print. Off. (1941).

This pamphlet is written and designed for popular consumption. It tells the story of a "killer"--carbon monoxide gas--and describes the danger signals to watch for, first aid for CO poisoning, and preventive measures. Jobs where CO may be a hazard are listed. Copies may be obtained from the Superintendent of Documents, Government Printing Office, Washington, D. C., at 5¢ each, \$1 per 100, or \$7.50 per 1,000.

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The Responsibility of the Nursing Profession in Industrial Hygiene. J. J. Bloomfield. Pub. Health Repts. 56, 1131-1141 (1941). Reprint No. 2282.

The nature and extent of industrial hygiene problems and the degree to which these are now being met by industry and by various health agencies are discussed. The objectives of industrial hygiene are defined, and some of the activities involved for achieving these objectives are presented. And, finally, the important role which the public health nurse plays in the entire program of maintaining employee health is discussed from the viewpoint of the nurse in industry, in official agencies, and in nonofficial organizations.

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Industrial and Visiting Nurses Collaborate. Pub. Health Nursing 33, 491-494 (Aug.) 1941.

Excerpts from an article, "District Nursing in Relation to the Welfare of Munition Workers," which appeared in The Medical Officer, London, August 24, 1940, are presented. England's plan for the use by industry of visiting nurse associations to give nursing care and health supervision to sick employees in their homes is described. Under pressure of emergency needs in England, the soundness of the plan has become evident.

The material contained in this article should prove valuable in suggesting a similar plan that would be applicable in this country on a much larger scale than any yet developed.

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Workmen's Compensation Law of the State of Maryland. Article 101 (including amendments enacted by the General Assembly of Maryland, effective June 1, 1939). Issued by State Industrial Accident Commission, Baltimore, Maryland, 1940. 77 pp.

Contents indicated by title. The various provisions of the law are grouped under the following headings: State Industrial Accident Commission (commission created, powers, and duties); Suit--Methods of Insurance; State Accident Fund; Corporate Insurance; Application of Article--Extra-Hazardous Employments; Claims and Compensation--Benefits; Safety Rules; Appeals; and Miscellaneous. Copies of this bulletin may be obtained from Dr. J. M. McDonald, Director, Bureau of Occupational Diseases, Baltimore City Health Department, Baltimore, Maryland.

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Industrial Hygiene in Pennsylvania's Public Health Program. William B. Fulton. Pennsylvania Union Labor, Official Year Book of the Pennsylvania Federation of Labor, 1940. Harrisburg: Pennsylvania Federation of Labor (1941). Pp. 13, 28-29, 35, 37-39, 41, 51, 53-54.

This article discusses: (1) The administration of the industrial hygiene program in Pennsylvania; (2) the scope of industrial hygiene problems in the State; (3) the activities of the Bureau of Industrial Hygiene; (4) the Bureau's defense program; (5) the qualifications and duties of the medical and engineering personnel; and (6) the Bureau's laboratory facilities.

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Occupation Hazards and Diagnostic Signs. A Guide to Impairments To Be Looked for in Hazardous Occupations. Louis I. Dublin and Robert J. Vane. (Revision of Bureau of Labor Statistics Bulletin No. 582). U. S. Dept. Labor, Division of Labor Standards, Bull. No. 41. Washington: Gov. Print. Off. (1941).

This handbook was prepared to aid physicians in general practice, industrial hygienists, safety engineers, and others who come into close professional contact with those who are engaged in industrial processes. Nine major hazards of employment are listed: namely, abnormalities of air pressure; abnormalities of temperature; dampness; defective illumination; dust; infections; radiant energy, repeated motion, pressure, or shock; and poisons. A separate section is devoted to a discussion of the dermatoses.

To aid in detecting the hazards and their effects on the worker, two lists are presented. The first consists of the more common hazardous occupations, arranged alphabetically; the second consists of hazards, together with their effects or symptoms, as well as the occupations affected.

This bulletin may be obtained from the Superintendent of Documents, Government Printing Office, Washington, D. C., at 10¢ a copy.

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A Portable Unit for the Determination of Halogenated Hydrocarbons. H. C. Dudley. Pub. Health Repts. 56, 1021-1027 (May 9) 1941. Reprint No. 2277.

A portable unit for the thermal decomposition and determination of halogenated hydrocarbons in air is described in detail. Analysis of standard samples indicates that, at a sampling rate of 2.5 liters per minute, recovery of carbon tetrachloride and trichlorethylene is quantitative.

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Lead and Arsenic Ingestion and Excretion in Man. Stewart H. Webster. Pub. Health Repts. 56, 1359-1368 (July 4) 1941.

The determination of the lead and arsenic content of biological specimens from a large number of individuals comprised a part of the chemical investigation of the lead arsenate spray residue study conducted by the Division of Industrial Hygiene. Results of an investigation to determine the maximal quantities of lead and arsenic excreted daily by orchardists consuming apples which had been sprayed with lead arsenate, and to obtain an estimate of the quantities of these elements ingested with the fruit are reported in this article.

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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

Directory of Personnel on Loan from Division of Industrial Hygiene
to State Health Departments, as of September 1, 1941

<u>State</u>	<u>Name</u>
Alabama Dept. of Public Health Montgomery, Alabama	Dr. E. H. Place Acting Assistant Surgeon
California Dept. of Public Health San Francisco, California	Dr. H. T. Castberg Passed Assistant Surgeon E. T. Chanlett Assistant Sanitary Engineer (R) K. M. Fluckey Assistant Sanitary Engineer (R)
Connecticut Dept. of Health Hartford, Connecticut	Dr. Hubert M. Heitsch Acting Assistant Surgeon C. J. De Simone Assistant Sanitary Engineer (R)
Maryland State Health Dept. Baltimore, Maryland	Dr. S. D. Steiner Assistant Surgeon (R) F. P. Jung Assistant Sanitary Engineer (R)
Massachusetts Dept. of Public Health--Reassigned to Massachusetts Dept. of Labor & Industries Boston, Massachusetts	William Franklin Junior Public Health Engineer J. W. Hammond Assistant Chemist
Michigan Dept. of Health Lansing, Michigan	G. E. Tubich Assistant Sanitary Engineer (R)
Missouri State Board of Health Reassigned to St. Louis Health Division	A. N. Wallach Junior Public Health Engineer
New Hampshire State Board of Health Concord, New Hampshire	Forrest Bumford Assistant Sanitary Engineer (R)

New Jersey Dept. of Health
Trenton, New Jersey

Dr. J. W. Hough
Acting Assistant Surgeon

D. H. Byers
Assistant Chemist

North Carolina State Board of
Health
Raleigh, North Carolina

Dr. I. J. King
Passed Assistant Surgeon (R)

C. M. Berry
Assistant Sanitary Engineer (R)

Tennessee Dept. of Public Health
Nashville, Tennessee

Dr. I. S. Miller
Passed Assistant Surgeon (R)

C. D. Yaffe
Associate Public Health Engineer

West Virginia Dept. of Health
Charleston, West Virginia

H. G. Bourne, Jr.
Associate Chemical Engineer