

INDUSTRIAL HYGIENE

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INDUSTRIAL HYGIENE FOUNDATION MEETING

The Eighth Annual Meeting of the Industrial Hygiene Foundation held at the Mellon Institute, Pittsburgh, on November 10-11, was attended by more than 500 industrial physicians, engineers, chemists, research specialists, and management representatives.

The opening session featured a timely report on "Putting the Veteran Back to Work." The Ford Motor Company's effective organization for handling returned service men was presented by Dr. H. L. Krieger, Medical Director. He described the Medical Transfer Department set up to deal with the special problems of handicapped employees and those needing special service for health reasons.

The ex-service men are in two groups: (1) The inactive, who have not been overseas, and (2) the active, who have seen overseas duty. The inactive group have usually been readily placed, while more time is required to find the right job for the handicapped men discharged after overseas duty. Three hundred and forty-eight returned ex-service men have already been placed in suitable work by the Ford Motor Company. This rehabilitation program is only an extension of the former policy of the Company. In the past, approximately 10 percent of the employees were disabled workers.

A discussion on "Demobilization, Rehabilitation and Reemployment of Veterans," by Colonel J. W. Andrews, Reemployment Division, Selective Service System, outlined the functions of the various federal agencies concerned with the education, rehabilitation, and employment of veterans. There are now 17 organizations working in this field, and coordinating their efforts through the National Clearing House Committee. Colonel Andrews indicated that all employment problems of returning service people should be handled on a local basis. "The number of organizations included in State and local committees will vary from State to State, and from community to community. It is desired that men and women returning from service be made to feel that they are regarded and treated as individuals with individual problems in their own home communities, by people with whom they are especially acquainted."

There were many excellent papers presented on current medical, engineering, and legal topics in the field of industrial hygiene. These papers will be published by the Industrial Hygiene Foundation.

ACUTE FATAL CASE OF CADMIUM POISONING

In an Indiana plant, one worker died within 4 days after a prolonged exposure to high concentrations of cadmium fumes. This death could have been prevented if someone responsible for setting up manufacturing processes had remembered that cadmium was very toxic and that if the metal was heated the workers would be exposed to high concentrations of a poisonous material.

The deceased worker undertook a job of "flanging" two-inch cadmium plated stainless steel pipe. To produce a flange, the pipe was heated with a blow torch until the pipe became a cherry red color. Soon after beginning the operation the employees complained about irritation of the nose and throat as well as the thick blue smoke present in the workers' environment. Within 4 hours, two employees were violently ill and were taken home. Vomiting, chest pains and shortness of breath were the chief symptoms at this time. The chest symptoms increased in one worker and within 4 days this worker died of a severe chest involvement.

This case again emphasizes that cadmium is a very toxic element and that cadmium plated steels should not be welded, heated, brazed or burned unless the job is well controlled. Such operations must be done in conjunction with properly designed and properly maintained local exhaust systems, for cadmium is more toxic than lead.

--Dr. Louis W. Solyar, Director
Indiana Bureau of Industrial Hygiene.

DANGERS OF X-RAY RADIATION IN MASS X-RAYING

The greatly increased use of the chest X-ray in mass surveys of industrial workers and other groups requires continuous vigilance to safeguard from over exposure to roentgen rays both the operators of X-ray units and the persons being examined.

Lead screen protection for the operators, proper spacing and careful checking of equipment, and frequent blood examination of operators are necessary precautions. The dangers of such exposure have been thoroughly studied by the Tuberculosis Control Section, States Relations Division, U. S. Public Health Service. To aid the technicians of this section, a blueprint chart has been prepared showing the proper spacing of the mobile photofluorographic equipment now being used in the Public Health Service tuberculosis case finding program. Copies of this chart and detailed information can be obtained upon request to Senior Surgeon Herman E. Hilleboe, Tuberculosis Control Section.

A timely warning on the "Danger from Fluoroscopy" appearing in an editorial of "Minnesota Medicine," June 1943, written by K. Wilhelm Stenstrom, Ph.D., Professor of Biophysics, University of Minnesota, has been reprinted in the November 1943 "Tuberculosis

Abstracts," published by the National Tuberculosis Association, 1790 Broadway, New York City. This editorial states that "roentgen rays from fluoroscopic units have caused innumerable sequelae to both patients and physicians and serious damages often still result in spite of the knowledge that now is available." The rules for safety in avoiding both electric shock and roentgen ray exposure are specified.

STATE WORKMEN'S COMPENSATION LEGISLATION IN 1943

The September "Monthly Labor Review" issued by the Bureau of Labor Statistics, U. S. Department of Labor, includes a discussion of advances made in workmen's compensation legislation by the 1943 State legislatures. These improvements exceed those made in any recent year in provision of adequate compensation.

Two States, Arizona and Oregon, have added occupational disease compensation for the first time, the Oregon act providing general coverage for all such diseases, and the Arizona law including a very comprehensive schedule of diseases. Three other States (Nebraska, Michigan, and Minnesota) revised their laws to provide all-inclusive coverage. Six States established second-injury funds. Scales of compensation benefits were liberalized by almost half the States which amended their workmen's compensation laws this year.

Complete details of these and other changes in State laws are covered in the article.

The October issue of the "Monthly Labor Review" contains an article reviewing "Principal Features of Workmen's Compensation Laws, as of September 1943." The provisions of the various State laws are discussed.

TUBERCULOSIS X-RAY PROGRAM IN CLEVELAND AIMED TO SURVEY 100,000 INDUSTRIAL WORKERS

The U. S. Public Health Service Tuberculosis Control Section is providing miniature X-ray equipment and a technical staff to make available a free chest examination to industrial workers in Greater Cleveland. This program is being organized as a cooperative project of the Cleveland Health and Welfare Department, Cuyahoga County health officials, the Anti-Tuberculosis League of Cleveland and Cuyahoga County, the industries, and labor unions.

The Anti-Tuberculosis League is providing funds to take care of expenses of promotion, and necessary clerical assistance. This project is one of the outgrowths of the educational health program initiated last year under the auspices of the Mayor's War Production Committee, and subsidized by the Anti-Tuberculosis League. Extensive publicity has been given the plan with the aim of getting the greatest possible number of individuals X-rayed. The campaign slogan for the project is "Be Sure You're Safe."

Reports on each X-ray will be completely confidential between the individual worker, the examining doctor (a USPHS representative), and the Tuberculosis Controller of Cuyahoga County. Follow up of all cases found will be conducted by the Tuberculosis Controller.

It is estimated that it will take a year to complete the survey of 100,000 workers, at the rate of 2,000 X-rays a week.

HEALTH PROGRAM FOR FEDERAL WORKERS

The U. S. Public Health Service through its Hospital Division is establishing an enlarged health program for Federal employees. A special appropriation of Congress made possible the organization of this service in July 1943. Under the direction of Senior Surgeon J. E. Van Achteren, Medical Officer in Charge of the Dispensary, and the immediate supervision of Surgeon (R) Beatrice B. Berle, Medical Director of the newly organized Employee's Health Service, a staff of psychiatrists, psychologists, psychiatric social workers, public health nursing consultants, health education consultants, and nutrition consultants has been appointed.

This service has been established to provide coordinating and consultative service regarding methods and standards for operating health programs within government agencies, and to assist the employee of such agencies through:

1. Mental hygiene and psychiatric consultation, diagnosis, and treatment.
2. Examination of employees and diagnosis for tuberculosis.
3. Public health nursing consultation.
4. Health education programs, and consultations.

This program will first become effective in the agencies to which medical officers of the Public Health Service have already been assigned, including the War Production Board, Office of Price Administration, Department of Commerce, Treasury Department, and the Office of War Information. These chief medical officers in each agency are in charge of the immediate management and direction of the health program of the agency. The nurses within these agencies are under the general administrative direction of the chief medical officer, and under the nursing supervision of a supervisor of nurses. In the agencies where there is no medical officer, requests for consultation and guidance in the development of a health program may be made by the nurses in the emergency room, or personnel officers.

Chief emphasis in the new program will be placed on the prevention of illness, practice of measures which build good health, and correction of factors in the work environment which affect the health of employees. Reduction of absenteeism should be one of the definite outcomes of this new service.

WAR DEPARTMENT HEALTH PROGRAM FOR CIVILIAN EMPLOYEES

The Civilian Medical Division of the War Department has been providing health service for civilian employees of that Department for the past two years. The headquarters of this service are located in the Pentagon Building. In this program, in addition to emergency treatment and medical service, education consultation is provided, and special attention has been given the problem of mental disease by a medical specialist in neurology. A tuberculosis case finding program is being conducted by a tuberculosis specialist and three X-ray technicians. 15,000 chest X-rays have been completed.

STATE ACTIVITIES

IOWA: The First Industrial Safety Conference in the State of Iowa was held in Des Moines on November 18. This conference, sponsored by some 12 organizations, including representation from management, labor, official and nonofficial agencies, was widely attended. The morning session featured five presentations on safety and health topics, while the afternoon meetings were in the form of round table discussions. At the dinner meeting, two addresses were presented, one on safety and the other on health.

This one-day safety conference in Iowa is one of the series now being sponsored in other States. Recently a successful meeting of this type was held in Indiana.

OHIO: The Ohio State Medical Association's Committee on Industrial Health has prepared a comprehensive outline of "Fundamentals in the Organization and Operation of an Industrial Health Program by a County Medical Society."

This outline includes discussion of the following: Objectives of the program, preliminary organization, activities of the local committee, industrial medical service and workmen's compensation, services which may be rendered by the full time physician and the part time physician in industry, the industrial physician and communicable diseases, legal responsibilities and limitations of nurses and lay personnel, and education of physicians in industrial health and industrial medicine.

Dr. Barney J. Hein of Toledo is Chairman of the Ohio Medical Association's Committee on Industrial Health.

WASHINGTON: Members of the industrial hygiene staff, Washington Department of Health have assisted in extension courses in "Industrial Hygiene for Nurses" held at Spokane and Seattle. A regular course in "Duties and Functions of the Nurses in Industry" was given at the University of Washington recently under the direction of Mrs. Olive Whitlock Klump.

Industrial nurses of the State, having organized an Industrial Hygiene Nurses Section of the State Nurses Association, are now stimulating local districts to organize such sections.

The State Federation of Labor has recently passed a resolution favoring adoption of the Statement of Policy of the State Advisory Committee on Industrial Hygiene, which recommends physical examinations. This committee, appointed by the Governor, has equal representation of labor, management, and the medical profession.

The State Advisory Committee recommends:

"1. That it is the duty of labor, management and the medical profession to develop jointly a plan which will insure the worker being placed in a job he is physically and mentally able to do, and a plan which will provide a periodic appraisal of the health of the worker on the job with the idea of maintaining the continuous health of the worker. (This becomes most important in view of the fact that Washington now has 500,000 workers in essential war industries.)

"2. THAT IMMEDIATE STEPS BE TAKEN by labor-management committees of all war industries to initiate such a plan. In addition, labor-management committees shall take immediate steps to protect the health of the worker and his family by eliminating health hazards in the physical plant (environmental hazards, such as heat, light, ventilation, sanitary hazards, dangerous fumes, dusts and poisons) and by eliminating the dangers of contagious disease such as tuberculosis, syphilis and other infectious diseases. Such committees will need to work out details to prevent information on the health and physical status of the worker being used to discriminate against any individual or group, and yet which will insure maximum production. When such labor-management committees have agreed to the principles of the plan, the medical profession should be invited to assist in developing the plan.

"3. That the program must be inaugurated and operated by the people producing war goods."

COURSES

Courses in "Air Sanitation in Industry" and "Industrial Air Sampling and Analysis" are being offered by the University of Michigan, at Detroit, beginning November 1. These courses will be sponsored by the U. S. Office of Education in the program of

Engineering, Science, and Management War Training. Mr. W. N. Witheridge and Dr. W. G. Fredrick of the Bureau of Industrial Hygiene, Detroit Department of Health, are the instructors of the respective courses.

A course in "Industrial Cafeteria Management" is being offered by Simmons College, Boston, as a part of the Engineering, Science, and Management War Training program cooperatively provided by the U. S. Office of Education and the College. The course is given in the evening so that women already employed in industry can attend. Mrs. Quindara Dodge, Associate Professor of Institutional Management and Director of Vocational Training at Simmons College, is the instructor.

Over 100 physicians are expected to attend the course in "Occupational Dermatoses" being held at the headquarters of the Academy of Medicine, in New York City, on December 6-11. Twenty-four hours of lectures will be given by Dr. Louis Schwartz, Chief, Dermatoses Investigations Section, Division of Industrial Hygiene, National Institute of Health, U. S. Public Health Service.

An "Industrial Nursing" course is being offered by the Syracuse University Extension Course in cooperation with the Syracuse Branch of the Division of Industrial Hygiene, New York State Department of Labor. Miss Margaret J. Nichols, Industrial Nursing Consultant for this Branch, is the instructor. Thirty-six nurses in the area including Binghamton, Johnson City, and Endicott are enrolled.

Johns Hopkins University is offering an evening course in "Industrial Nursing" during the fall semester under the leadership of Miss Ethel Turner.

NEW MATERIALS

"Wartime Working Conditions--Minimum Standards for Maximum Production," Special Bulletin No. 13, prepared by the Division of Labor Standards, U. S. Department of Labor, has recently been issued "to provide management with a yardstick for measuring physical working conditions." This bulletin can be obtained from the U. S. Department of Labor.

Enclosures of Materials.--Two items intended for enclosure in the October issue of this bulletin were not received in time to be included, and are enclosed with this issue. Attention needs to be called to the fact that the pamphlet, "Employing the Married Woman Worker," prepared by the Alabama Health Department, may be obtained in quantity from the Planned Parenthood Federation of America, Inc., 501 Madison Avenue, New York 22, New York.

Industrial Nutrition Materials.--The Nutrition in Industry Division, War Food Administration, has prepared a number of educational materials for use in industries. The titles and prices of these materials, which can be obtained from the Government Printing Office, are as follows:

	Price per copy Lots less than 100	Price per 100 Lots of 100 or more
<u>Posters</u>		
Eat the Basic 7 Every Day	\$0.10	\$4.00
Avoid Fatigue	.05	2.00
Good Food Means Good Work	.05	3.00
Eat 3 Well-Balanced Meals Every Day	.05	3.00
<u>Folder</u>		
WFA-USDA WFC-8—Eat a Lunch that Packs a Punch	.05	1.00
<u>Table Tents</u>		
Sets of 7 illustrating each of the 7 Basic Food Groups	.10	5.00
<u>Sets</u>		
Containing 1 copy of each item listed above	.40	18.00

Vital Statistics Rates in the United States, 1900-1940. 1051 pp. Obtainable from Government Printing Office, Washington, D. C. at \$1.75 per copy, cloth bound. The information in the volume includes: historical series for various comparable areas running back as far as data are available; death rate time series by cause of death; age, sex, race, and population-size group; and birth rate series by age of mother, race, and population-size group. Rates are shown in special detail for the year 1940; and a supplement contains all the population figures needed in the computation of these rates.

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

The services of the Massachusetts Division of Occupational Hygiene were recently appraised by J. J. Bloomfield. More than 20 State programs have now been reviewed by the Division of Industrial Hygiene staff.

Dental Surgeon (R) L. D. Heacock visited the State departments of health in Pennsylvania and Georgia during November.

Miss F. Ruth Kahl, Public Health Nursing Consultant, visited the headquarters of the New York State Division of Industrial Hygiene as well as the Syracuse Branch early this month.

At the request of the Arkansas Division of Industrial Hygiene, Dr. Louis Schwartz consulted on a number of industries in the State.