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Industrial Hygiene Digest

INDUSTRIAL HEALTH NEWS

LITERATURE ABSTRACTS

MEDICAL

ENGINEERING

CHEMICAL

TOXICOLOGICAL

LEGAL . . . decisions and trends

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SEPTEMBER, 1952

(Vol. 16, No. 9)

INDUSTRIAL HYGIENE FOUNDATION

MELLON INSTITUTE

4400 FIFTH AVENUE - PITTSBURGH 13, PA.



FOUNDATION FACTS

Foundation Facts is a monthly news-letter issued to industrial concerns holding membership in Industrial Hygiene Foundation. The Foundation is a nonprofit association of industries for the advancement of healthful working conditions.

Volume 14

September, 1952

No. 9

KEYNOTE SPEAKER

Mr. L. R. Boulware, Vice President of General Electric Company, will be the keynote speaker at the 17th Annual Meeting of Industrial Hygiene Foundation. His address will be given on November 20 at the General Meeting, which emphasizes management aspects. Mr. Boulware has taken a keen interest in the welfare of employees both in the plant and in the community.

NEW ADDITIONS TO FOUNDATION MEMBERSHIP

The following companies have recently affiliated with the Foundation:

Cobalt Chemicals Limited
Eaton Manufacturing Company

Kennametal, Inc.
Michigan Iron & Coke Company
Warner Company

STAFF MEMBERS ATTEND SARANAC SYMPOSIUM

The Seventh Saranac Symposium is being held September 22-26 at The Saranac Laboratory of the Edward L. Trudeau Foundation, Saranac Lake, N. Y. Two of the Foundation's Staff Members will attend. T. F. Hatch, Laboratory Director, will serve as Chairman of a discussion on "The Inhalation of Certain Industrial Substances," at the Monday, September 22 afternoon session. D. C. Braun, Medical Director, will present a paper entitled "The Presentation of Medical Evidence in Controverted Compensation Cases" on the morning of Friday, September 26.

REPRINTS AVAILABLE

Reprints of the paper "A Rational Approach to Air-Pollution Legislation," by George E. Best, are now available to member companies upon request. This paper was presented at the 16th Annual Meeting of the Foundation.

17th ANNUAL MEETING, Nov. 19-20

at Mellon Institute, Pittsburgh

- 1007 Findings of Bronchoscopy in Silicosis and Silico-Tuberculosis.
E. Concina and O. Orlandi. *Rass. med. ind.* 20, 424-426
(Nov.-Dec. 1951) Italian.

The importance of the existence of bronchial lesions in silicosis has been underestimated. Bronchoscopy allows direct observations of changes in the tracheal and bronchial mucous membrane, deviations in the trachea and main bronchi, and modifications in the orifices of the lobes and segments. Lavage, aspiration of the bronchial section, and endo-bronchial administration of adrenaline and antibiotics may be conducted during the process. Inflammation of the mucous membranes and other changes characteristic of silicosis are disclosed by this method. Findings in 25 patients are reported.

-- Cond. from Bull. Hyg.

- 1008 The Value of the Electrocardiograph for Examining Anthraco-Silicotics.
F. Lavenne. Institut d'Hygiene des Mines, Hasselt, Belgium,
Communication No. 90, 5pp. (1951). French.

The author used the electrocardiograph to examine 11 cases of anthraco-silicosis with clinical signs of loss of compensation of the right ventricle, and 200 cases of anthraco-silicosis, compensated for invalidity but still ambulant, who were doubly classified according to the extent of fibrosis present and according to the amount of emphysema. The findings are presented in somewhat cryptic symbolism. They are held to justify the claim that the electrocardiograph may be of considerable value in establishing early strain on the right side of the heart.

-- Bull. Hyg.

- 1009 Asbestosis Associated with Bronchiogenic Carcinoma. R. Stoll, R. Bass, and A. A. Angrist. *Arch. Intern. Med.* 88, 831-834 (Dec. 1951) German.

Data for statistical proof of any association of asbestosis with pulmonary carcinoma are hard to collect, but three investigators have found carcinoma in 7.5 to 14.8% of cases of asbestosis. A case is reported in which a worker had been exposed to asbestos for 6 years and had refused to wear a respirator. He came under notice with weakness and a persistent cough. Clumps of malignant cells were seen in the bone marrow, and x-ray showed generalized large discrete oval shadows indicative of pulmonary metastases. After death, modules varying to 4 cm. in diameter were found scattered throughout both lungs, with interstitial fibrosis. Large areas of necrosis existed throughout the lungs, and typical asbestos bodies were seen inside and outside the tumor areas. Metastases were found in the kidneys, brain, and liver. The opinion is suggested that the silicate in asbestos must itself be directly carcinogenic. It establishes an additional reason for preventive measures in the use of asbestos.

-- Cond. from Bull. Hyg.

The
ACTIVITIES and MEMBERS
of
INDUSTRIAL HYGIENE FOUNDATION



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INDUSTRIAL HYGIENE FOUNDATION

A Research Association of Industries for

Advancing Industrial Health and

Improving Working Conditions

INDUSTRIAL HYGIENE FOUNDATION

INDUSTRIAL HYGIENE FOUNDATION is a nonprofit research association of industries for advancing occupational health, improving working conditions and bettering human relations.

The Foundation's staff includes physicians, chemists, engineers, industrial hygienists and medical technicians—all specialists in health problems arising in manufacturing and mining. Through affiliation with INDUSTRIAL HYGIENE FOUNDATION, companies are entitled to the services of these specialists, plus the technical facilities of Mellon Institute, the Foundation's headquarters.

FOUNDATION ACTIVITIES

The activities of I-H-F fall into three major categories:

- (1) To give direct professional assistance to member companies in the study and solution of industrial health problems.
- (2) To assist companies in the development of health and medical programs as essential parts of industrial organizations.
- (3) To contribute to the scientific advancement of industrial medicine and hygiene, through research, surveys and allied activities.

The broad scope of questions and problems that come to the Foundation for consideration is shown by the following tabulation of activities, classified under eight major headings: (1) medical, (2) chemistry, toxicology and industrial hygiene, (3) engineering, (4) air pollution, (5) noise, (6) research, (7) legal, and (8) general advancement of industrial health.

(1) Medical

- (a) General information and advice on organization and administrative practices in industrial health services, cost finding and analysis, plans for physical layouts, personnel needs and

- (b) Surveys of health problems, and comprehensive company-wide medical audits to appraise existing organizations and to recommend further needs.
- (c) Information on specific industrial medical problems and experience.

(2) Chemistry, Toxicology and Industrial Hygiene

- (a) Industrial hygiene field studies are conducted—appraisals of nature and magnitude of hazardous exposures and effectiveness of control measures. These may be on a plant basis or on an industry-wide scale.
- (b) Information on toxicity of chemical and physical agents, and on hazards of particular processes; preparation of bibliographies, literature searches, and securing of information from other sources, as, for example, companies having related problems.
- (c) Information and advice on sampling and analytical procedures, choice and availability of equipment.
- (d) Preliminary training of industrial hygiene personnel in laboratory procedures, sources of information, organization of laboratory, record keeping, etc.
- (e) Studies and development of new sampling and analytical methods and techniques.

(3) Engineering

- (a) Information on engineering practices in control of hazardous processes, and on design procedures, data and sources of information. Advice on control requirements for specific operations.
- (b) Specialized advice on new plant design, reconstruction in existing plants and changes in process to minimize or eliminate hazards.
- (c) Review of plans for ventilating systems, as to design, capacity, etc. Advice on special air-cleaning problems.

Design practices and organiza-

(4) Air Pollution

- (a) Advice on industrial air pollution problems—investigational procedures and criteria.**
- (b) Development of methods, apparatus and techniques for collecting and measuring air pollutants.**
- (c) Investigations of air pollution potentials of plants—measurement of stack dusts, fumes, gases and odors. Estimation of neighborhood effects.**
- (d) Measurement and appraisal of pollution effects within adjoining community. Ascertaining sources of communal pollution.**
- (e) Assistance in engineering measures for controlling excessive stack emissions. Measurement of stack dust particle size and its relation to appropriate dust collectors.**

(5) Noise

- (a) Information on measurement of noise—sound level, frequency, magnetic tape recordings, availability of equipment, calibration and data record sheets.**
- (b) Comprehensive physical measurement of noise levels in industrial plants.**
- (c) Information on physiological response to noise—measurement of hearing impairment, permanent loss vs. fatigue aspects, treatment, susceptibility and placement.**
- (d) Information on control measures—accumulation of industrial practices that have proved satisfactory.**
- (e) Information on legal aspects—assembly of facts on laws and regulations relating to compensation for hearing loss.**

(6) Research

- (a) Short- and long-term toxicity studies on new chemicals to indicate nature of problems which may be encountered in manufacture and use.**
- (b) Research on nature and mechanism of action of hazardous dusts, fumes, vapors and gases, with special reference to actual conditions of plant exposure.**
- (c) Basic studies in physiology, toxicology and biochemistry of chemical and chemical agents which may be encountered in**

(7) Legal

- (a) Summaries of legislative activities pertaining to occupational diseases, compensation, and other proposed legislation pertaining to industrial health; analysis of trends.**
- (b) Review of new compensation laws, revisions and additions, and analysis of decisions of compensation boards that are of special significance.**
- (c) Analysis of new codes pertaining to health hazards and related problems.**

(8) General Advancement of Industrial Health

- (a) Meetings: (1) annual meeting of members—discussion of broad objectives, policies and trends in industrial health and human resources; (2) conferences of professional specialists from member companies, (i) medical, (ii) engineering, (iii) chemistry and toxicology, (iv) legal; (3) special conferences on selected subjects or for discussion of common problems in particular industrial groups.**
- (b) Publications: (1) transactions of annual meeting; (2) monthly *Industrial Hygiene Digest*; (3) special bulletins prepared under the sponsorship of the several advisory committees; (4) informative letters and pamphlets on subjects of current interest; (5) technical papers by staff members.**
- (c) Special surveys and studies are undertaken on an industry-wide scale, as, for example, for an association or similar organization to develop fundamental information which will be of benefit to an entire industry in appraising and controlling occupational disease hazards.**

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W. L. Latshaw U.S. Smelting Refining & Mining Company, Salt Lake City
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