

FUNCTIONS OF THE INDUSTRIAL HYGIENE DEPARTMENTHOW IT CAN BE OF SERVICE TO THE PLANT ENGINEER

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The Industrial Hygiene Department, a branch of the Medical Department, was organized to aid in preventing occupational disease. It is under the supervision of the Medical Director who reports to the Vice-President and Treasurer of the company.

It is a service department with a fair degree of authority and exists in an advisory capacity. Its service may be used by operating heads, superintendents, or engineers accordingly as they see fit and the smart operators will take advantage of it. The cost is pro-rated against the various divisions so that each should make full use of our facilities.

Now what is an industrial hygienist? He is not a toxicologist who specializes in investigating deaths of a homicidal or suicidal nature. He is not a latrine inspector. He is not interested in V. D. (venereal disease), but he is interested in O. D. (occupational disease). It is his job to recognize potential health hazards in industry and to devise ways and means for their prevention and correction.

In Brake Shoe, the following are some of the potential hazards to health: Silica, Lead, Chromium, Tellurium, Zinc, Phosphorus, Iron Oxide, Asbestos, Manganese, Mercury, Solvents, Carbon Monoxide, Radiant Heat, X-Ray Emanation, Ultra Violent and Infra Red, Acrolein, Phenolic Resins.

It is the duty of the Industrial Hygiene Department to assay these hazards and to recommend methods of control. Even where plants are thought to be in good hygienic condition, we feel it is important to survey them periodically on the basis of past unpleasant experiences.

You would be amazed at the unsuspected hazards brought to the attention of management. At the National Bearing plant in Pittsburgh, we had finally succeeded in reducing the lead-in-air concentration to safe limits. We then became complacent because here, at last, was a bad plant finally brought under control. On a routine follow-up survey, we found very hazardous conditions because the ventilators were not being turned on; the cupola hoods were not kept in repair; ladle skimming was not done under the hood provided; etc.

At National Bearing St. Louis, the machine shop air appeared to be as clear as outside air. We didn't suspect any hazard there. However, routinely, we collected urine samples from the workmen. We found them excreting abnormal amounts of lead, indicating high exposure. Air analyses confirmed the findings of the urinalyses.

In the Southern Wheel Division, we discovered that the operation of rolling a wheel from the cooling pits to the sand blast was hygienically far more hazardous than the shakeout. Although visibly, you would swear that the reverse was true.

At Ramapo Hillburn, we found a lead hazard at the spray paint booth. The enamels being used contained from 4.4 to 15 per cent elementary lead by weight. The lead mist in the breathing zone of the sprayer was 8.6 milligrams