



Medical Planning at Aldenham Works

Building a completely new works affords a rare opportunity for an industrial medical officer. Not only is he concerned with the plans for his own kingdom, the works surgery, but he finds himself consulted at all stages so that the final human environment may be a healthy and agreeable place of work.

The recently opened Aldenham Works, where the buses belonging to the London Transport Executive are overhauled and refitted, provided such an opportunity for the Executive's medical department, and particularly for Dr. A. W. Gilks, divisional medical officer of London Transport. And now that the works is in full production the medical supervision of environmental working conditions and of the methods and materials is as much a part of the doctor's task there as is that of his more obviously medical duties in the surgery. However, at the Aldenham Works occupational hazards are comparatively few. The paint sprayers are kept under regular observation. For them specially designed spraying booths ensure proper ventilation, and special clothing and masks are worn. Also, the manufacturers of the paint used in spraying cooperated with the management in trying to eliminate as far as possible the noxious elements in the paint itself. All the paint sprayers are volunteers in good health, who undergo a full medical examination, including a blood count, on starting work. The blood count is repeated every six months.

The works surgery was designed by the architect in collaboration with the Chief Medical Officer, and is in charge of a State Registered nurse assisted by a State enrolled assistant nurse. The nurses treat accidents and illness occurring at work and continue treatments initiated by general practitioners, so that employees' time off work is kept to a minimum. The doctor also visits Aldenham at least once a week, but patients requiring specialized investigations are referred to the bigger medical centre at the Chiswick works. By a special arrangement with the Surgical Director of the Accident Unit of the Royal National Orthopaedic Hospital, serious accident cases are taken there by ambulance immediately, and later any necessary treatment or supervision is carried out at the works surgery

in consultation with the hospital surgeon. This arrangement secures the best immediate care and afterwards reduces time off work.

Neither the design of the works surgery at Aldenham nor the function of the medical officer there is unique, but both are inheritors of long and successful cooperation between management and medical department.

G. L.

British Occupational Hygiene Society and Ergonomics Research Society

D. TURNER

A joint meeting for the presentation of scientific communications was held by the British Occupational Hygiene Society and the Ergonomics Research Society at the London School of Hygiene and Tropical Medicine on June 29, 1956. The meeting was attended by about 80 members. At the morning session the chair was taken by Dr. C. G. Warner.

In a paper on "Energy Expenditure and the Grading of Work in a Modern Factory", J. R. Brown and G. P. Crowden, of the London School of Hygiene, described the results of a survey of 23 different tasks performed by both men and women in a light engineering factory. A total of 102 individual tests were made in which the metabolic rate of the worker was measured and the severity of the task independently assessed on a work-grade scale by one of H.M. medical inspectors of factories. Comparisons were drawn between the scale used in this study and others proposed by the Royal Society (1919), the British Medical Association (1950), and Christensen (1953). A film illustrating the survey was also shown.

In a preliminary report on "Exposure to Chloroform in Industry", P. J. R. Challen and D. E. Hickish, with Joan Bedford, described an investigation of a process in which chloroform was incorporated in the manufacture of medicinal lozenges and where a problem had arisen after the mechanization of an existing process. Air samples indicated that the operators had been exposed to concentrations of chloroform in excess of the maximum allowable concentration. On clinical examination employees complained of symptoms which were consistent with exposure to chloroform. The results of liver function tests were within normal limits.

F. W. Mead, R. C. Browne, and A. F. Burstall, of King's College, Newcastle-upon-Tyne, discussed the "Oxides of Carbon in a Diesel Engine Exhaust and the Fuel-air Ratio in the Cylinders". They described the results of experiments in which a well-known type of transport diesel engine was run with measured fuel and air consumption, and the percentages by volume of carbon monoxide and dioxide in the exhaust were related to the fuel-air ratio in the cylinders. Increasing the fuel-air ratio from 0.0123 to 0.44 (the makers' maximum value) linearly increased the percentage by volume of carbon dioxide in the exhaust from 2.0 to 9.0 and the power output from zero to 25.2 b.h.p. At the same time the carbon monoxide in the exhaust fell from 0.08 to 0.05%