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It's All About Clean Air

The Institute of Anatomical Sciences

Autumn Scientific Meeting

University of Wales, Cardiff, Friday 20th September 1996

THE FORMALDEHYDE FIGHT

THE TEAM

1. The Technology. (Type 50C and Type 100C Electric Air Cleaners)

Mr. T. E. Marshall, Clean Air (Formaldehyde) Ltd., Glasgow

Abstract

Explanation of the patented technology, the filters and the high voltage granular media enhancement system. The benefits of re-circulating air as opposed to external ventilation. The importance of optimising filtered air change rates to reduce airborne concentration of formaldehyde in a room/laboratory. Thereafter to maintain concentration on a continuous basis at less than 2ppm during the working day.

Personal details — T. E. Marshall

Mr. Marshall is a director of Clean Air (Formaldehyde) Ltd., Glasgow. His career spans some 30 years primarily in the electrical and mechanical engineering services and manufacturing industries. Chartered Engineer and Fellow of

the Institution of Electrical Engineers, 1977. Previous employment as a director of Balfour Kilpatrick Ltd. and Haden Young — both major multi-service engineering companies.

2. Characterisation of Solids for Formaldehyde Removal

Dr. P. J. Hall, Department of Chemistry, University of Strathclyde, Glasgow

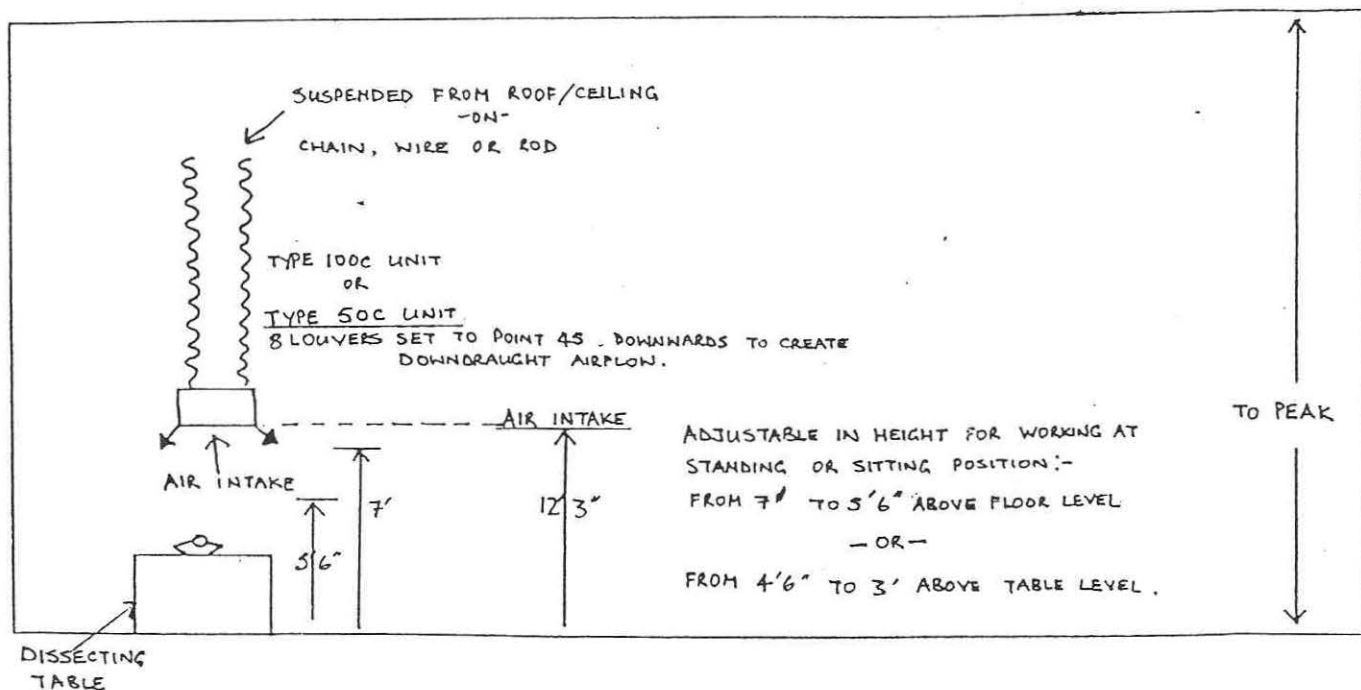
Abstract

Activated carbons are the most popular method for the removal of formaldehyde vapour from contaminated air. They are limited because of slow mass transfer into micropores and difficulties producing identical pore systems. This makes prediction of filter lifetime unreliable. Porous polymers offer a more reproducible system with diffusion into the polymer pore system followed by diffusion and trapping in bulk material. Methods for characterising their performance are discussed.

Personal details — Dr. P. J. Hall

Dr. Hall is a senior lecturer in chemical technology, Department of Chemistry, University of Strathclyde. Over 50 publications in referred journals in the areas of materials characterisation and fuels science. PhD in Physical Chemistry, University of Newcastle-upon-Tyne 1987. Previous employment: British Antarctic Survey, Exxon Corporate Research, US.

Dissecting room



Notes: 1 Optimum juxta positioning of the number of units proposed would have to be agreed.

2 A series of tests on the removal of airborne 5% and 7½% formaldehyde were conducted with the air intake at 12'3" above floor level.