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The Application of Acoustics in Local Goverment

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A few years ago there was very little scope for acoustics in local authorities but this has now changed sharply and it is likely that local authorities may become one of the major employers of staff trained in acoustics in the country. In the smaller authorities the work is at present mainly concerned with the control of noise from industry, although the Protection of the Environment Bill will greatly increase the volume and extent of the work, primarily through the designating and enforcing of noise abatement zones. This work will mainly be carried out by Public Health Inspectors with some training in noise control and measurement. The Land Compensation Act 1973 has also caused a substantial increase in noise work for highway authorities mainly related to the predictions and measurement of traffic noise, the assessment of construction noise, and the implementation of Noise Insulation Regulations.

In the large local authorities such as the Greater London Council and the new Metropolitan Counties and Districts, the work of Acoustics or Noise Sections covers a very wide field. In the G.L.C. Scientific Branch, for example, the noise section, comprising 9 staff including 6 graduates, is mainly concerned with planning aspects of noise control. A service is provided to other council departments on the mitigation of existing noise problems due to traffic, aircraft, industry and entertainment noise as well as on planning to prevent future problems. In addition the Section also carries out sound insulation measurements particularly where new materials or methods of construction are employed, and also covers the acoustic design or improvement of small halls, mainly in colleges or schools. There is also a programme of work for project design to obtain more information about the factors affecting noise levels and propagation, the setting of practicable noise standards, and new methods of measuring and evaluating noise.

It is unlikely that any existing course in physics ir even specifically in acoustics can provide more than the first basis for

acoustics or noise work as required by local authorities. Clearly an understanding of acoustic principles, regarding for example the generation, propagation and transmission of sound and vibration is essential for anyone working in the field. A good knowledge of instrumentation and basic electronics would also be required. In addition, however, some appreciation of the problems of planners, architects and mechanical engineers is also essential if the acoustics technologist is to be able to work with them, and this of course would be necessary in Local Authorities. Furthermore some knowledge will be required of legislation and its interpretaion and if any applied research is to be carried out, statistics, sociology and psychology will also have to be included in the range of understanding required by the acoustics technologists, at least in the larger authorities.

The only way in which it seems likely that the right staff can be found is to provide short courses specifically for work in Local Authorities. It is suggested that these should be in two broad classifications. Firstly for Public Health Inspectors - and this would cover general acoustics, noise control, the law on noise and planning against noise; secondly for graduates or equivalent, not necessarily from local goverment, and this would cover a wide range as outlined above with the emphasis on planning and would be primarily intended to supply staff for specialist Noise Sections in the larger Local Authorities. It is considered that suitable courses for both categories would be of 4 - 6 weels duration and that this period would include a considerable amount of practical and field work.