"ASBESTOS & HEALTH" COURSES FOR SUPERVISORS AND SHOP STEWARDS

Meeting the Requirements of H.M. Factory Inspectorate

1. The Asbestos Industry Regulations 1931

These Regulations applied only to certain manufacturing processes specified in a schedule - hence "scheduled areas". Reduction of dust emission was called for, but no means existed for reliable measurements. It was suggested that the level of dust given off by a flyer frame at 750 r.p.m. was probably satisfactory.

2. Position at TBA prior to 1956

Even before 1931, ventilation had been applied to cards and looms. Dust was removed by cyclones or settling chambers (sleeve filters came later). Damping was introduced in 1939-40. Despite problems during the Second World War, steady improvements were made culminating in the Major Development Scheme of the mid 50's, aimed at enclosing fiberising and mixing processes.

3. Monitoring of the Factory Environment

To assess the value of the engineering control measures being introduced, various dust sampling instruments were tried in the early 1940's and regular routine sampling throughout the scheduled areas started in 1951. By 1962 the idea of counting fibres which could be breathed in was established and the industry adopted a method using a very fine filter to give an estimate of the number of asbestos fibres between 5 and 100 micrometres ($\frac{1}{5000}$ and $\frac{1}{250}$ of an inch) long in a cubic centimetre ($\frac{1}{1000}$ of a litre) of factory air. These very fine, short fibres can only be seen in a microscope and the preparation and counting of a dust sample takes a considerable time. This has led to the use of an automatic sampler and counter (the Royco Particle Counter) for the routine work, a system which is satisfactory provided it is checked periodically against the standard method. For the taking of "personal" samples, the filter method is the only one available.

4. The Asbestos Regulations 1969

These Regulations, in force since 1970, have a much wider scope than the 1931 Regulations. The main provisions are:-

(a) The employer responsible for creating the dust is required to protect his own employees and other persons who might be exposed, even if not employed by him.

(b) The employee is required to comply with the requirements of the Regulations as far as they apply to him.

(c) Satisfactory dust levels are to be attained by ventilation or other equally effective means (e.g. damping). If this is impracticable, protective equipment must be worn, but it is not an alternative.

(d) Cleaning of premises and machines must be carried out by approved vacuum cleaners or other dustless methods. If this is impracticable, full protection must be worn by all people in the area where the cleaning is going on.

(e) All outdoor clothing must be kept in an area free from asbestos dust and protective clothing must not leave the premises except to be laundered, and then only in clearly marked containers.

(f) In-factory transport of loose asbestos fibre must be in closed receptacles.

5. Permitted Dust Levels

In the 1969 Regulations, asbestos dust is defined as "dust consisting of or containing asbestos to such an extent as is liable to cause danger to the health of employed persons". No dust levels to comply with this definition are given in the Regulations, but a separate document has been issued by the Factory Inspectorate for the guidance of its inspectors. Briefly, this states that the substantive clauses of the Regulations will not apply where dust levels are below 2 fibres per cubic centimetre and where the level cannot be brought down below 12 fibres per c.c., full protection (overalls, headgear, respirator) is required. Between 2 and 12 the action required will depend upon the level and duration of the exposure. In arriving at these recommendations, the Factory Inspectorate was guided by the British Occupational Hygiene Society Standard for Chrysotile Asbestos, based on data collected at TBA. The 2 fibre per c.c. "safe-level" is based on a working life of 50 years and therefore for most asbestos workers, there is a built-in safety factor.

6. The Present Position at TBA

(a) Extension of dust control and improvements to existing systems has been a continuing commitment since before 1931. Large areas of the factory e.g. Weaving Department, have been operating below the 2 fibre level for many years and steady progress has been and is still being made in many other locations. Our target is to reduce dust levels throughout the factory to the 2 fibre standard as quickly as possible.

(b) We support strongly the provision in the Regulations for the segregation of outdoor clothing and the wearing of overalls in working areas, in order to prevent asbestos dust being carried into the homes of workers on their clothing. To this end, changing rooms have been provided and overalls supplied free to all production personnel, whether or not they work in an area where protective clothing under the Regulations is required. It is regretted that little progress had been made in the wearing of headgear until the last month or so when it began to be worn, whatever the hair style, by both men and women. A few production operations e.g. card hopper filling, still require a respirator to be worn as well as certain cleaning tasks. This will probably continue to be the case, even when we achieve our goal of 2 fibres per c.c. at all factory processes.

(c) A major improvement has resulted in the handling of crude fibre by the adoption of palletised pressure-packed impermeable bags in place of the old hessian bags which suffered so severly from dockers' hooks.

(d) The nearer factory dust levels approach the 2 fibre target the more difficult and costly it becomes to achieve further improvements. In this situation, the maintenance of low background dust levels becomes more and more important, highlighting the need for good housekeeping practices which will be dealt with in more detail elsewhere in the course.

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