

United States

Asbestos: reductions urged

SCIENTISTS from the Occupational Safety and Health Administration and the National Institute for Occupational Safety and Health have urged further stringent reductions in the permitted exposure limits to asbestos fibres in the air.

Since 1972, the maximum permitted concentration in the work-place has been two million fibres per cubic metre in air. The scientists have now issued a report recommending that this exposure level be reduced to 100,000 fibres per cubic metre — the lowest level that can be accurately measured — and have urged a ban on all non-essential uses of asbestos.

At a news conference in Washington last week, Dr Eula Bingham, Assistant Secretary of Labour for Occupational Safety and Health, said that the agency intended to push shortly for reduced exposure limits — but refused to say whether it would endorse the study group's recommendation or a higher one.

Mind the spores!

THE US Defense Department published details last week of experiments carried out in the mid-1960s to test the New York subway system as a method for dispersing bacterial weapons.

According to the defence scientists who carried out the tests, commuters using the subway system paid little attention when they were sprayed with harmless strain of the bacterium *Bacillus subtilis* through gratings in the sidewalk, even though the aerosol clouds were clearly visible.

This led the research workers to the conclusion that the subway system, where the draughts caused by trains would disperse the biological agents over a wide area, could prove an effective way of inflicting severe casualties on civilian populations.

Particularly effective were light-bulbs containing the test bacilli which were dropped from moving trains within the subway system. According to the Defense Department report, released after a Freedom of Information request from the Church of Scientology, the bacteria "aerosolised and dispersed rapidly by the movement of trains, penetrating stations and trains in the area and persisting there for one hour or longer."

The report says that information about the effectiveness of subway dispersion had both defensive and offensive value.



"Forget the heroin business, Bugsy! I've something more profitable lined up!"

Interferon sales \$2 billion-plus?

ACCORDING to a report prepared by the US brokerage and investment firm Bache Halsey Stuart Shields, interferon sales could have a world wide market of \$2 billion a year within three to five years. The report, summarised in *European Chemical News*, specifies three major health areas — cancer, chronic inflammations and viral diseases — in which interferon could have widespread application.

Bache estimates that in the US 5.4 million cancer patients a year could receive interferon treatment. Assuming a five-

injection course of therapy at a factory price of \$10 per dose, this produces a \$270 million-a-year market. Subtracting \$100 million a year for competing drug therapies leaves an interferon market of \$170 million a year from cancer treatment.

For chronic inflammatory diseases such as arthritis, Bache estimates that interferon could capture half the market now occupied by steroid treatment. At 11.5 million patients and a course of five \$10 injections the market would be around \$300 million. Viral diseases are estimated to plague nine million people a year in the US. With a shorter course of three injections per treatment course sales would be worth \$270 million a year. Total US sales would then be around \$750 million.

Bache then estimates world wide sales on the basis of current pharmaceutical sales. In 1979, the US market accounted for 20% of the world market. Since new drugs take longer to penetrate non-US markets, Bache estimates non-US sales for interferon to be three times the US total.

The author of the report, Ronald Norman, formerly of Warner Lambert and Bache's specialist on the pharmaceutical industry, admits that some of the estimates are only guesses. In particular, the factory price of a dose could end up falling anywhere between \$1 and \$100 dollars a dose. "We create a rough guideline and leave it to our clients to make their own educated guesses" says Norman. (G.D. Searle in the UK has estimated that their fibroblast technique could bring the factory price down to around \$2 a dose.)

Joe Schwartz

United Kingdom

Coalite health survey talks

WORKERS exposed to the toxic chemical 2,3,7,8-tetrachlorodibenzo-p-dioxin (dioxin) at Coalite and Chemical Products Ltd between 1968-1971 are to be told today the results of three surveys of their state of health (*Nature*, 6 March, page 2). But because of the make-up of the control group surveyed, interpretation of results is difficult, and the investigation may have to be repeated.

Officials of the Health and Safety Executive (HSE) are to meet the workers, and management, to give them the Executive's assessment of the surveys; but the Executive is expected to say that it is not possible to draw any firm conclusion from results so far.

Two of the studies — those on the blood chemistry and immunology — detected differences between the dioxin-exposed men and the control group; but the third study on chromosome changes reported no differences between the two. The study of blood chemistry showed changes in total blood cholesterol and high density lipoprotein cholesterol levels in the exposed workers. And the immunology

study reported reduced levels of two immunoglobulins, IgD and IgE in a significant proportion of them.

However, the control group used was not properly matched with the exposed group, making comparison between the two difficult. The control group included management staff undergoing lipid screening at the time.

One HSE official hinted that something might be salvaged from the studies when the raw data had been examined but admitted that the investigation may have to be repeated.

Even though the HSE persuaded Coalite to arrange the studies two years ago, it did not receive the results until a few weeks ago. This delay was due in part to a belief within the HSE that it lacked the necessary powers to compel Coalite to disclose the findings.

An Executive spokesman has now said that the HSE does have the legal powers under Section 27 of the 1974 Health and Safety at Work Act to serve a notice on any individual to disclose information which the Executive requires.

Alastair Hay