Once upon a smoggy day in London town...

London. The emission of minute airborne smoke particles from motor vehicle exhausts needs to be cut by at least two-thirds if pollution-related illnesses are to be reduced, according to a group of air pollution advisers to the British government.

In its third report, published last week, the 10-member Quality of Urban Air Review Group says that existing measures are "unlikely" to reduce concentrations of the particles below the government's agreed limit of 50 micrograms per cubic metre over a 24-hour average.

Epidemiological evidence suggests an association between high concentrations in the atmosphere of smoke particles smaller than 10 micrometres in diameter — known as PM_{10} — and adverse health. The associated effects include higher than average death rates for heart and lung diseases, as well as a rise in the United Kingdom in the prevalence of allergic disorders such as asthma, hay fever and eczema.

The report, *Airborne Particulate Matter in the United Kingdom*, cites several examples of the 50 microgram limit being exceeded in British cities. For example, in central London, this value was exceeded on 139 days when measured as a 24-hour running mean

IMAGE UNAVAILABLE FOR COPYRIGHT REASONS

Choking: particle limits are being exceeded.

between 1992 and 1994; on 152 days for Belfast and 99 days for central Birmingham.

Vehicle exhaust emissions contribute a quarter of all emissions of primary airborne particles — those emitted directly from the source into the air. This fraction is higher in winter months and in urban areas. Statistics for Greater London in 1990, for example, show that 86 per cent of exhaust emissions by weight consisted of PM_{10} .

In urban areas, most particulate matter from vehicle exhausts tends to be 2.5 micrometres in diameter, particularly in winter. The report adds that emission control

Tim Ridley/Panos

strategies should target sources of PM_{10} that "are well defined and are controllable".

But despite pressure in the United States for $PM_{2.5}$ to become a standard measurement (see *Nature* **380**, 10–12; 1996) — either instead or in addition to PM_{10} — Roy Harrison, chairman of the group and professor of environmental health at the University of Birmingham, says such a change is unlikely in the United Kingdom. "There is a misconception in the press that we are somehow behind the game. But I am quite happy with the standard we have set."

The report puts the government in a difficult position. About four-fifths of road traffic PM_{10} comes from diesel engines. But ministers are unwilling to intervene in the sale of such engines. Instead, they have already agreed to implement technical improvements in diesel technology to cut PM_{10} emissions from new diesel engines.

But further technical improvements, says Harrison, will be less beneficial because a diesel engine modified to emit smaller quantities of PM_{10} emits more nitrogen oxides. A spokesman for the Department of the Environment says the government will study the report closely before announcing its air quality strategy in the summer. **Ehsan Masood**

Advisers deny pressure over Japan's 'first' AIDS case

Tokyo. The failure of the Japanese government and its science advisers to recognize the first case of AIDS in Japan, a haemophiliac who died in July 1983, has become the latest focus of attention in the scandal over the infection of haemophiliacs with HIV in the early to mid-1980s.

This failure is widely believed to have delayed government action to halt the spread of HIV through blood products. Indeed, it has even been suggested that the government deliberately chose not to recognize the case.

Last week, Yuichi Shiokawa, emeritus professor of Jutendo University, who served on the Ministry of Health and Welfare's AIDS study group in 1983 and subsequently headed the government's AIDS Surveillance Committee, testified on the case to a lower house parliamentary committee. This followed testimony by other members of the study group (see *Nature*, **380**, 660; 1996).

The haemophiliac was a patient of Takeshi Abe, former vice president of Teikyo University and head of the AIDS study group, which was set up in June 1983, just before the patient died. Abe presented the patient's records to the group at its first meeting. But the group decided not to recognize the patient as an AIDS victim, even after a US expert told Abe in August 1983 that this was definitely so.

The case was eventually recognized by

the government as AIDS two years later — but only after the AIDS Surveillance Committee, headed by Shiokawa, had announced in March 1985 that Japan's first case of AIDS was a Japanese homosexual who made a temporary visit to Japan from the United States. The homosexual was treated by a colleague of Shiokawa's at Jutendo University on 17 January 1985, and returned to the United States the following day.

Last month, Juzo Matsuda, also of Teikyo University and a former member of the study group, testified that at the first meeting of the study group in June 1983, Shiokawa favoured publicly recognizing Abe's patient as an AIDS case. But he later reversed his position.

Matsuda suggested that Shiokawa's change of heart was brought about by pressure from top ministry officials, or former top ministry officials who had retired to positions with domestic blood product manufacturers. He argued that if the patient had been recognised as an AIDS victim, emergency measures — such as the import of heat-treated products — would have to have

been taken, which could have damaged the domestic blood product industry.

Shiokawa, giving unsworn testimony last week, denied that he was put under any such pressure. He also argued that, as the study group was headed by Abe, he did not have strong influence on its decisions. But Shiokawa did admit that the AIDS case that he announced in March 1985 probably would not be diagnosed as AIDS under current diagnostic criteria.

There is growing evidence that the government deliberately suppressed information about HIV infection among haemophiliacs, and it is being widely suggested in Tokyo that the homosexual case may have been used to mislead the public into thinking that AIDS was only a problem among homosexuals.

Matsuda testified that in late 1984, Abe, who was at the same university as Matsuda, told the ministry of health and welfare about test results from the United States which showed that 23 out of 48 of Abe's haemophiliac patients were HIV positive. But the ministry says it has no record of his findings.

Last month, however, the ministry released documents showing that Shiokawa's surveillance committee was at least informed about four other HIV-positive haemophiliacs in November 1984. But the committee did not make the findings public.

David Swinbanks

Shiokawa: changed his mind about AIDS case.