

From: [REDACTED] HEF(M)

Date: 28 January 1994

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Dr Metters DCMO

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DoE REPORT: "DIESEL VEHICLE EMISSIONS AND URBAN AIR QUALITY"

Issue

1. The second report of the DoE Quality of Urban Air Review Group (QUARG), on diesel emissions, is being launched today. This may give rise to media interest about health effects of diesel emissions, especially as there is a 3-page series of articles in today's Daily Telegraph promoting the use of diesel-engined cars.

Line to take

2. Questions on this report are for DoE.

If questioned about health effects of diesel emissions a DH line to take is given below.

Background

3. Following the passage of the Clean Air Acts the levels of particles in UK urban areas are generally far lower than they were in the 1950s at the time of the London smog episodes. However, sufficient evidence has accumulated from epidemiological studies in the United States and Europe to give rise to concern about the health effects of particulate air pollution from combustion sources, particularly from diesel engines.

4. The important conclusion of QUARG is that in the view of the Review Group, "the impact of diesel vehicles on urban air quality is a serious one. Any increase in the proportion of diesel vehicles on our urban streets is to be viewed with considerable concern unless problems of particulate matter and nitrogen oxides emissions are effectively addressed."

5. The report also says
 - a. that the introduction of catalytic converters to new petrol cars has led to a substantial improvement in emissions per vehicle;

 - b. it is not possible to make a simple direct comparison between the "environmental friendliness" of petrol and diesel vehicles: diesels tend to produce less carbon monoxide and hydrocarbons, but more nitrogen oxides, particulate matter and black smoke.

 - c. projections of future emissions, taking account of both anticipated traffic growth and stricter emission controls, indicate that an increased market penetration of diesel cars at the expense of three-way catalyst petrol cars will on balance have a deleterious effect on urban air quality.

6. The report will be available, free, from the QUARG Secretariat (Institute of Public and Environmental Health, University of Birmingham) next week.

7. The Quality of Urban Air Review Group is chaired by Professor Roy Harrison of the University of Birmingham. The DH representative on the Review Group is Dr R.L. Maynard.

DH line to take

8. The DH committee of independent experts, the Committee on the Medical Effects of Air Pollutants (COMEAP), chaired by Professor Stephen Holgate, has formed a sub-group to consider the health effects of particulate emissions as a component of air pollution. COMEAP is expected to report before the end of 1994.

(If pressed)

9. DH has asked for definitive advice from COMEAP and we wait for their views. However, in the interim, there appears to be sufficient evidence from studies conducted in a number of countries to give cause for concern about the

possible effects of current levels of fine particles upon health. This is a complex area, but any reductions in the levels of fine particles should be welcomed, such an approach being in line with the precautionary approach adopted by the Government on questions of possible effects of a range of toxic substances.



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PS (L)'s INTERVIEW FOR BBC PANORAMA ON ASTHMA

1. You asked for briefing for the interview which PS(L) has agreed to give for the Panorama programme about asthma. Immediately below is a general brief followed by briefing on the specific subjects which the Panorama team have suggested may be raised.

2. You advised that the briefing meeting would be tomorrow at 09.30. We have arranged for people to attend from DH and from other Departments. I am sorry for the relatively large numbers but I hope that PS(L) will recognise that the subject covers a wide range of somewhat disparate interests. The following people will be attending:

From DH

CMO

[redacted]

From other Departments

[redacted]

3. If you have any queries before the briefing meeting, please get in touch.

[redacted]

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PS(L) INTERVIEW ON ASTHMA FOR PANORAMA

OVERVIEW OF KEY ISSUES

1. Although we cannot be sure, there are several themes which we anticipate the Panorama team may pursue:

- * the Department's attitude to asthma, with an implication that the disease is not taken seriously enough;
- * the possible links between asthma and (outdoor) air pollution especially traffic emissions;
- * co-ordination of health policy across Departments with the implication there may be conflicts between Health and Transport;
- * possible criticism of a recent report by a DH expert group (MAAPE) on a vehicle generated air pollutant (oxides of nitrogen).

2. The prevalence of asthma (i.e. the number of people who have asthma) has been increasing in the UK for a number of years. This trend has been reported from a number of other countries. Asthma is a disease in which the interplay between genetic and environmental factors including indoor and outdoor air pollution is complex and incompletely understood.

Departmental attitude to asthma

3. Asthma is an important health issue and the Department is concerned about the rise in incidence of asthma. It is accepted that asthma is an important cause of ill health in the UK. Asthma was identified in the White Paper, 'The Health

of the Nation', as an area where further research is needed before targets can be set. We are working hard to find the causes of the rise in incidence and the newly-formed MRC Institute of Environment and Health, funded by DH and DOE, has made research into the health effects of air pollution its first priority.

Asthma and Air Pollution

4. The Panorama team will already have interviewed a number of respected research workers, including Dr Malcolm Green of the British Lung Foundation and Professor Robert Davis from St Bartholomews Hospital. They are likely to have expressed concern that air pollution (particularly vehicle emissions) is a major cause of the increase. The fact is that there are varying views amongst respected research workers on this point.

5. Concern about increasing emissions of air pollutants from motor vehicles has led to the suggestion that the trend in asthma is linked to a trend in air pollution. This belief is widely held in the general public, and among many health workers who treat or counsel asthma sufferers. However, the suggestion that the number of people who suffer from asthma (i.e. the prevalence) is linked to levels of outdoor air pollution is not firmly proven. The rising trend in asthma in countries which have not suffered a significant change in levels of pollution suggests other factors may be involved. These include

- * indoor air pollutants and allergens such as the house dust mite;
- * maternal smoking habits; and
- * dietary changes.

6. However the suggestion that asthma attacks (in those who already suffer from asthma) may be triggered by episodes of air pollution is more plausible. There is evidence that asthma may be triggered by high levels of sulphur dioxide (mainly from fossil fuel combustion). There is less evidence that asthma attacks are triggered by motor vehicle pollutants (i.e. ozone and oxides of nitrogen) particularly at the levels found in the UK. However, some particularly sensitive individuals might be affected when air pollution levels are high and this is why we provide health advice on the Air Quality Helpline and recommend that people consult their doctors if they are worried.

DH action

7. It is accepted that asthma is an important cause of ill health in the UK. Asthma was identified as an area where further research was needed in the White Paper Health of The Nation.

Advisory committees

8. DH is monitoring work in this area and new evidence is referred regularly to our expert committees. To advise on the broad health issues in the field of air pollution, CMO has established an independent expert Committee on the Medical Effects of Air Pollutants (COMEAP), chaired by Professor Stephen Holgate of Southampton Medical School. Because of DH concern about possible effects of air pollutants on asthma, the Committee has, at DH request, set up an expert sub-group to undertake a major review of the developing evidence about asthma and air pollution. A second COMEAP sub group has been set up to look in detail at the effects of fine particles from diesel emissions upon health. Both of these groups will report in 1994 and their findings will be published.

9. The effects upon health of acute episodes of individual air pollutants have been considered by the Advisory Group on the Medical Aspects of Air Pollution

Episodes (MAAPE). Their recent report on nitrogen dioxide has been widely attacked in the media. However the MAAPE report on oxides of nitrogen is a comprehensive expert and impartial assessment of the hazards to health from this pollutant. They concluded that there is little evidence that asthmatics are susceptible to levels of nitrogen dioxide usually found in the UK.

Research

10. The intention to establish an Institute for the Environment and Health to examine links between the environment and health was announced in The Health of the Nation. The MRC supported by DH and DOE has now set up the Institute for Environment and Health at the University of Leicester. This will act as a focus to co-ordinate work on chemical environmental pollutants networking and managing research on behalf of the Departments. An early priority of its work programme is the effects of air pollutants upon health. To clarify the issues an inaugural meeting was held at the new Institute for the Environment and Health from 2 to 4 February 1994 on 'Air Pollution: understanding the uncertainties'. This was an international Workshop held jointly by The Institute and the World Health Organisation and will produce a background scientific paper for the second WHO ministerial conference on Environment and Health in Helsinki in June 1994.

11. Later in February a meeting of the Chairmen of DH and DOE Expert Advisory Committees will be held to draw together research recommendations: the conclusions will assist the Departments in formulating their research programmes on air pollution with a view to continuing the research work identified as necessary in "Health of the Nation".

12. The Department has been concerned about the possible effects of the episodes of pollution experienced in London in December 1991. DH is funding

Professor Ross Anderson who is currently investigating the effects of this episode.

13. The Medical Research Council already support a large amount of work on asthma: some 14 projects supported by grants and work at MRC Units is currently under way. DH is also currently considering a number of research proposals in this area.

Key points

- * **Asthma is an important health issue. The Department is concerned about the rise in incidence of asthma and working to find the causes of the rise in incidence**
- * **"Health of the Nation" identified asthma as an area for further research before targets could be set: this does not mean it is seen as unimportant**
- * **Research is under way, and the new Institute for Environment and Health is making health effects of air pollution its first priority and is working to co-ordinate a research programme**
- * **The CMO's independent expert advisory committee COMEAP have set up a sub group specifically to undertake a major review of asthma and air pollution and will report later this year (end 1994)**
- * **The link between vehicle emissions and asthma is not firmly proven and further research is needed on this.**
- * **[More on service issues]**

RISE IN ASTHMA CASES

Prevalence of Asthma

10% to 15% of children are affected.

3% to 4% of adults are affected.

Surveys have shown increasing prevalence in several countries. England, South Wales, New Zealand and Sweden.

Reasons for increased prevalence

These are still not understood.

Maternal smoking is related to increased incidence of allergic disease including asthma in infancy.

Allergy

Modern domestic environments may favour increased concentration of house dust mite.

Particularly in childhood allergy is an important cause of asthma. There is evidence that other allergic disorders such as eczema and rhinitis have increased.

Diet

Allergy to certain foods can precipitate asthma but there is no evidence for change in a particular dietary factor causing the increased prevalence of asthma.

Virus Infections - cause wheezing in infancy
- precipitate attacks of asthma

TREATMENT OF ASTHMAHospital Admissions

Hospital admissions have increased particularly in children. They were rising rapidly in the first half of the 1980s particularly among young children, around 10% a year, more recently they have increased by less than 2% a year.

GP consultations

GP consultation for asthma have increased due to:

discharge from hospital follow-up
the Chronic Disease Management Programme.

Prescriptions

Prescription costs rose from £14.87m in 1982 to £29.26m in 1992. This is due to increased use of preventive treatment.

Mortality

England	1969	1243
	1991	1745
	1992	1655

Deaths have fallen under the age of 65.

The Confidential Enquiry into Asthma Deaths in 1983 considered that many deaths might have been avoided by better treatment. A recent survey in Norwich found major deficiencies for care in 20% of cases. Psychological or social factors were present in 71% of deaths. In 2 of 25 cases there were problems in obtaining help because the patients did not have private telephones.

District and Regional differences in mortality

These are not understood and the distribution could be random.

In East Anglia a high standard mortality ratio for asthma was associated with low hospital admission rate and low drug prescription rate. Does this need attention?

There is no consistent relation between mortality and the use of services. In other regions and districts higher than average mortality was associated with an higher than average use of services.

The most recent analysis (1988-92) shows that East Anlia no longer has the highest SMR or lowest hospital episodes or prescriptions.

Beta-2 Stimulant Bronchodilator Reliever Drugs

It was believed that the increase in asthma deaths in the 1960s was due to excessive use of isoprenaline inhalation. Excessive use of fenoterol was linked to the rise in asthma deaths in New Zealand in the 1980s.

CSM reported that there was conclusive evidence for a causal relationship with increasing heredity.

Problems Inequalities of care

Lack of allergy clinics

In relation to asthma most District General Hospitals have a specialist in respiratory disease who has had some training in allergy.

The National Asthma Training Centre in its programme of education for doctors and nurses now includes some teaching about allergy diagnosis and management.

Measures to reduce house dust mite

Special bed covers and proprietary acaracides are not available on the National Health Service.

Research is required to know whether in the long term these measures will be cost effective. We have good preventive treatment for asthma. House dust mite is only one of many possible factors causing asthma.

Nebulisers cannot be prescribed by general practitioners.

Nebulisers in themselves are cheap but they are powered by electric compressors. It requires assessment by a consultant in respiratory disease to assess the need for a compressor. In most cases a spacer device will be equally effective and has the advantage of not requiring any electric power.

It is a matter of professional opinion that consultants in some hospitals recommend this treatment and a decision for local management as to how the machines may be made available.

Beta-2 Stimulant Bronchodilator Reliever Drugs

There is some concern that regular use of these drugs may cause decline in lung function. Some sudden deaths have been associated with the use of salmeterol.

The National Asthma Task Force is at present conducting a pilot study to obtain more information about the risks associated with regular use of bronchodilators.

Good points

90% of general practitioners has now taken up the chronic disease management programme.

Annual returns will enable better analysis of care and possibly identification of localities with increased prevalence of asthma.

The Department has recommended the British Thoracic Society Guidelines as a basis for contracting for services for asthma.

One general practice in Doncaster has already shown that following the guidelines has reduced the number of patients admitted to hospital.

A recent audit in North West Faculty of the College of General Practitioners showed that over a five year period delay in diagnosing asthma in childhood have reduced significantly.

A meeting was held with experts on 24.2.94 to seek advice about research into allergen avoidance as a way of reducing asthma in childhood.

AIR POLLUTION AND ASTHMA**Line to take**

1. Concern about increasing emissions of air pollutants from motor vehicles has led to the suggestion that the trend in asthma is linked to a trend in air pollution. However, the suggestion that the number of people who suffer from asthma is be linked to levels of outdoor air pollution is not firmly proven. Other factors which might also play a part include indoor pollutants and allergens such as the house dust mite; maternal smoking habits; and dietary changes.

2. DH is monitoring work in this area and new evidence is referred regularly to our expert committees.

AIR POLLUTION AND ASTHMA: Q AND A BRIEFING

Q. What is the Department of Health doing to address the concerns about the link between asthma and air pollution?

A. Firstly, I should like to say that we recognise that asthma is an important cause of ill health in the UK. Asthma was identified as an area where further research was needed in the White Paper Health of The Nation.

DH action to address the possible link between asthma and air pollution is taking place on several fronts:

- i Monitoring work in this area and new evidence is referred regularly to our expert committees;
- ii DH sponsored an international meeting to consider the uncertainties in predicting the effects of air pollution upon health, at the Institute for Environment and Health, 2-4 February 1994;
- iii A meeting of the Chairmen of the expert advisory groups on air pollution will be held at the Institute at the end of February to advise on priorities for further research on the effects of air pollution upon health;
- iv DH is funding research into the health effects of the December 1991 episode of pollution in London: several other proposals are being considered by DH and by MRC.

- Q. Will the committee advice be made available to the public?
- A. Yes. Full reports of the Committee on Medical Effects of Air Pollution sub-groups (on asthma and air pollution, and on particles) will be published in 1994. These will provide the Committee's view on the links between air pollution and asthma, and the effects of particles upon health, and will identify gaps in knowledge and make recommendations for further research.

- Q. Do you agree that the rise in motor vehicle emissions is the most likely explanation for the rise in asthma?

- A. It is certainly one possible explanation although there is little firm evidence to suggest that the two are causally related. It does not appear, for example, that the prevalence of asthma is any greater in urban areas compared with rural parts. The rising trend in asthma in countries which have not suffered a significant change in levels of pollution suggests that a common factor is unlikely, but that a combination of the environmental and genetic factors may be important. Further research, as pointed out in Health of the Nation, is the way forward.

- Q. But surely asthmatics are particularly sensitive to air pollution?

- A. It is important to distinguish between factors which may be involved in the rising prevalence of asthma, and those which may trigger an asthmatic attack in a susceptible individual.

The Advisory Group on the Medical Aspects of Air Pollution Episodes (Chairman: Professor Anne Tattersfield) has examined in detail the evidence on ozone, sulphur dioxide, and nitrogen dioxide. The reports have concluded that:

- i With respect to ozone and the oxides of nitrogen levels in the UK are unlikely to be such that significant damage to health will be produced.
- ii With respect to sulphur dioxide, levels in parts of the UK, notably Belfast, occasionally exceed those at which effects upon asthmatics might be expected.

- Q. So you do accept that vehicle emissions can trigger asthma attacks?

- A. Some particularly sensitive individuals may be affected when air pollution levels are high, and this is why we provide health advice on the Air Quality helpline and recommend that people consult their doctors if they are worried.

Q. What advice is available to members of the public who are concerned about health effects during air pollution episodes?

A. When levels are high, those who suffer from respiratory disease such as asthma may experience some effects including respiratory irritation, some coughing and possible pain on deep inspiration when taking exercise out of doors. Any effects may be ameliorated by reducing exposure by spending less time exercising out of doors. Advice to this effect and information of levels of air pollutants is provided on the FreePhone HelpLine: 0800 556677.

Individuals with asthma or other respiratory diseases should seek advice from their doctor when pollution levels are high.

Q. The recent DH expert committee report on Nitrogen dioxide has been widely attacked in the media. Levels of this vehicle-derived pollutant have risen by about 35% over the last decade - surely this should not be dismissed as a possible cause of the rise in asthma?

A. The report on Nitrogen Oxides is a comprehensive, expert and impartial assessment of the hazards to health from this pollutant. I accept their conclusions that there is little evidence that asthmatics are susceptible to levels of nitrogen dioxide usually found in the UK. However, I take very seriously the suggestion that all motor vehicle emissions (not just nitrogen dioxide) may play a part in the rise in asthma, and that is why DH has a comprehensive programme of action to address this issue.

Q. But air pollutants do not exist in isolation. Should you not be examining the effects of the whole air pollution mixture?

A. Yes, this is an important point. During episodes of air pollution levels of more than one pollutant tend to be raised. The effects of exposures to combinations of pollutants are likely to be greater than exposure to similar levels of individual pollutants. We have asked the Advisory Group on Medical Effects of Air Pollution Episodes (MAAPE) to advise on this subject for its fourth and final report. This will be published in 1994.

Q. Are you aware of research conducted by Professor Davies at St Bartholomew's which suggests that air pollution makes the lungs more vulnerable to allergens such as pollen and viruses?

A. Yes. Officials have discussed these findings with Professor Davies and are aware of the literature from abroad. It is one of the pieces of evidence that is

being considered by our air pollution committees.

We are currently planning research into the interaction between air pollution and allergens so that the implications for groups such as asthmatics can be better understood.

RECENT RESEARCH ON THE EFFECTS OF PARTICLES UPON ASTHMA AND RESPIRATORY HEALTH

Line to take

- 1. DH is aware of recent research which suggests an association between levels of fine particles and respiratory morbidity and mortality, and this has been referred to the COMEAP sub-group examining the effects of particles upon health.
- 2. In the meantime, I agree that the evidence from epidemiological investigations in North America and elsewhere, is sufficient to give cause for concern about levels of particles, and reductions in levels should be welcomed.

RECENT RESEARCH FINDINGS: Q AND A BRIEF

- Q. There is evidence from other countries that current levels of air pollution, in particular the fine particulate matter known as PM₁₀ are harmful, so why do we need further research before taking action?
- A. DH is aware of the work of Schwartz and Dockery and co-workers which suggests an association between particles and respiratory morbidity and mortality, and this has been referred to the COMEAP sub-group examining the effects of particles upon health.

In the meantime, I agree that the evidence from epidemiological investigations in North America and elsewhere, is sufficient to give cause for concern about levels of particles in the UK, and reductions in levels should be welcomed.

- Q. A Government committee (Quality of Urban Air Review Group) advised recently that diesel engine emissions are more damaging to health than petrol emissions. What is the DH view?

- A. This is a complex area. I recognise that there is concern about particles emitted from diesel engines, and this is why we have asked for expert advice on the implications of epidemiological evidence which suggests that low levels of particles may be harmful to health. The committee's work was well under way before publication of the recent QUARG report. However, in terms of fuel economy and emissions of other pollutants such as carbon monoxide and nitrogen dioxide, diesel engines perform better than petrol engines.

The fitting of catalytic converters on all new petrol engines and tighter controls on diesel emissions will help to reduce vehicle emissions - and also reduce hazards to health.

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NHS R&D PRIORITIES - RESPIRATORY DISEASES

Background

Under the NHS R&D Strategy, the Central Research and Development Committee convenes expert advisory groups on subjects which it agrees offer a particular R&D challenge. This arrangement forms a partnership between NHS staff and the research community. As priorities are agreed centrally, lead NHS Regional R&D directorates take responsibility for commissioning research.

Line to take

The NHS R&D Strategy is determining priorities on a range of difficult research problems of direct relevance to the NHS. A main priority for the NHS R&D programme is a review focusing on the areas of need for R&D relating to respiratory diseases, including asthma. This review which is planned to commence in Autumn 1994 will be chaired by Professor Stephen Holgate the Director of Research and Development for Wessex Regional Health Authority.

The Thames Regional Directors of R&D have agreed £100k joint funding in the field of air pollution and respiratory health. There was a call for research proposals in November 1993 and the proposals which resulted are currently undergoing scientific evaluation.

DH CENTRALLY COMMISSIONED RESEARCH

Background

RDD commissions research for DH according to the requirements of customer divisions. Currently a range of research underway and in planning which is relevant to respiratory diseases and especially asthma. The health effects of air pollution are among the issues proposed for detailed focus in the coming year.

Research underway

Asthma specific

Treatment of asthma in general practice

King's College London, School of Medicine and Dentistry

Feedback of patient specific morbidity data in asthma -
a randomised controlled trial in General Practice:

to test the hypothesis that feedback to GPs about patient morbidity is not followed by improvement in organisation and services of the practice; nor by changes in attitudes and knowledge of the doctors and patients

St Bartholomew's Hospital Medical College

Evaluation of collaborative clinical guidelines in
Hackney general practices

to test the effect on patients of tutorials for GP staff on asthma management guidelines.

Social Medicine and Health Services Research Unit (St Thomas' Hospital)

UK Asthma studies:

study of education of patients with asthma in
general practice

Prevalence studies

Social Medicine and Health Services Research Unit (St Thomas' Hospital)

EC Asthma studies:

prevalence survey of asthma in representative samples of young adults from different sites in Europe

National Study of Health and Growth:

includes prevalence of asthma in children

St George's Hospital Medical School

Health effects of the nitrogen dioxide episode in London, December 1991 [highest level of nitrogen dioxide since automated recording began - pollution levels entered the range associated with measurable effects on *asthmatics* in experimental studies.

To investigate health effects - deaths, hospital admissions, GP consultations; health effects of daily variations in nitrogen dioxide in recent years.

Work being commissioned and in planning

University College London Medical School

Impact of air pollution and temperature on GP consultations

Effects of ozone, climatic conditions on daily GP consultation rates; levels of oxides of nitrogen and sulphur, particulates and pollen. Different respiratory conditions in different age groups, including *asthma*. South east, Wessex and south western regions.

University of Teesside

Middlesbrough Childhood Asthma study

prevalence in relation to proximity to sources of

pollution; correlation between changes in air quality (including indoors) and symptoms.

[early stages of commissioning]

to assess personal exposure to air pollutants and severity of hayfever symptoms in London Traffic wardens - association between exposures and severity of nasal, eye and respiratory symptoms.

Examination of census-linked data, including reference to asthma prevalence

several projects, including - in planning - analysis of data in 1958 birth cohort (London University Institute of Child Health)

ASTHMA and HEALTH OF THE NATION

The Health of the Nation sets five areas for priority action, with associated targets. They do not include asthma, although it was suggested as a possible key area in the Health of the Nation Green Paper.

The decision not to include it was on the grounds that further development and research was necessary before meaningful national targets could be set.

That is not to say that asthma is regarded as unimportant: it is not. The strategy in Health of the Nation was drawn up on the basis that the key areas - those areas which posed the greatest need for and offered most scope for making improvements in the overall health of the country - should receive special attention, but that activity in other areas should not reduce.

The three criteria for selecting key areas set out in the White Paper were:

- the area should be a major cause of premature death or avoidable ill-health
- effective interventions should be possible, offering significant scope for improvement in health
- it should be possible to set objectives and targets, and monitor progress towards them.

The White Paper made clear that as work progressed in other areas, such as asthma, consideration would be given to adding to the strategy for health in the future. Asthma is one of the areas which will have a strong claim in such a review.

The Chief Medical Officer's Health of the Nation Working Group is continuing to monitor the situation and advise Ministers with regard to development and research into the strong candidates for key area status. At present, however, the position on asthma remains that further information for understanding causes and effective interventions is needed before realistic targets can be set.

ROAD TRANSPORT AND ASTHMA

BULL POINTS

- The Government has agreed tight emission standards for both cars and lorries within the EU. These mean that most new cars have needed catalytic converters since the beginning of 1993. These reduce harmful emissions by about 80%. As a result of these standards, we expect ambient levels of most vehicle related pollutants (NOx, HC, CO, particulates and lead) to decline until well into the next century.
- A new Directive has recently been agreed which will significantly tighten emission standards for new cars registered after 1 January 1997. Standards will be tightened further by the year 2000.
- The MOT emissions check introduced for cars in November 1991 is helping to reduce emissions carbon monoxide and hydrocarbons. Since 1 September 1993 there has been a metered smoke test in the annual test for heavy diesels.
- Measures to reduce congestion in urban areas will also help - these involve a mix of traffic management, parking controls and better public transport. We have a programme of research on this including an assessment of the possible role of road pricing.
- In London, for example, the Department is introducing a network of Red Routes designed to improve the movement of traffic. Journeys on these routes will be smoother with less stopping and starting. This will mean less pollution.
- Scientist have not so far proved that air pollution causes asthma. But Government takes health risks very seriously: will continue to work in EU for higher vehicle standards.

PARTICULATES

- Diesel engined vehicles are major source of particulates. However 1996 EC standards for new vehicles will substantially reduce these levels for some time.
- A sub-committee of COMEAP is looking into the health effects of particulates and is due to report in mid-1994.

Q&A - HEALTH EFFECTS OF TRANSPORT POLLUTION

Is increasing traffic responsible for the rise in asthma levels?

Not proven, although Government takes risk seriously. The Department of Health's independent expert Committee on the Medical Effects of Air Pollutants has established a sub-group to investigate this topic. It is expected to report in 1994. In addition, the Chairman of the main Committee has been instrumental in establishing a working group on the possible effects of air pollution on allergic diseases under the auspices of the British Society for Allergy and Clinical Immunology.

[IF PRESSED - While still inconclusive, the sensitivity of asthmatics to allergens may be enhanced by exposure to traffic pollution. However there is as yet no evidence to suggest that pollution from transport causes asthma in non-asthmatics.]

What pollutants are emitted from motor vehicles and are these harmful to health?

Mainly the oxides of nitrogen, carbon monoxide and hydrocarbons. In addition, ozone can be formed indirectly from vehicle emissions reacting with sunlight. Some sensitive groups may experience short term health effects during episodes of high concentration of these pollutants. At usual UK ambient levels there is little evidence of damage to health.

What work is the Government doing to assess the health effects of traffic pollution?

The Department of Health is currently very active in studying the effects of air pollutants on health. The

Advisory Group on the Medical Aspects of Air Pollution Episodes set up in 1990 and the Committee on the Medical Effects of Air Pollutants which was established in 1992, are examining the evidence with a view to estimating the likely effects of air pollution in the UK and recommending research needed. The Advisory Group, produced reports on ozone in 1991 and on sulphur dioxides, acid aerosols and particulates in 1992, and on the effects of the oxides of nitrogen (one of the main pollutants from motor vehicles) at the end of 1993.

The Department of the Environment has established an Expert Panel on Air Quality Standards to make recommendations on air quality standards for the UK. The first report on benzene was published on 2 February. We are considering the report carefully.

What is the effect on health when WHO and EC Air Quality Guideline levels are exceeded?

These Guidelines are not intended to be used as standards but are aimed at providing background information and guidance on the setting of standards. Guideline levels are below those at which significant effects on health would be expected to occur.

Does benzene resulting from petrol fumes cause leukaemia, particularly in children?

Benzene is carcinogenic in humans. In occupational groups exposed to levels far in excess of those encountered in ambient air there is evidence of increased incidence rates for various leukaemias. People's exposure to benzene in outdoor air is greatest at petrol stations but this is of short duration and the exposure of the general population to benzene from

all sources combined is very low compared to that of the occupational groups. It is therefore not possible to establish any direct link between the increased incidence of leukaemia in children and adults to environmental exposure to benzene. For smokers, inhalation of cigarette smoke provides the major source of exposure to benzene.

What is the effect of diesel fumes on health? Can they cause cancer?

There is some evidence that exposure to very high concentrations of smoke from diesel engines may contribute to lung cancer in certain occupational groups, but it is unlikely that ordinary street exposure would have such an effect as the exposures are far lower.

What effect does carbon monoxide from motor vehicles have on health and in particular on unborn babies?

Studies have shown a link between carbon monoxide and the health of unborn children: mothers who smoke during pregnancy tend to produce low birth-weight babies. But the intake of carbon monoxide from cigarette smoking is far greater than from car exhausts.

ANNEX

SUMMARY OF THE KEY POLLUTANTS

a. Oxides of Nitrogen (NO_x):

A collective term to refer to nitric oxide (NO) and nitrogen dioxide (NO₂); most anthropogenic NO_x derives from emissions of NO. The atmospheric oxidation of NO to NO₂ is caused by reaction with O₃ and other oxidants such as HO₂, HCs, aldehydes and CO. Once formed, the residence time of NO₂ is approximately one day; it is then converted to nitric acid (HNO₃). In terms of human health, NO₂ is regarded as most important and so data on health risks and guidelines are expressed in terms of NO₂ rather than NO_x.

Certain human health effects may occur as a result of exposures to NO₂ concentrations exceeding normal ambient NO₂ levels. Annual mean concentrations in urban areas are generally in the range 10-45 ppb (20-90 µg.m⁻³). Maximum daily and one hour means can be as high as 200 ppb (400 µg.m⁻³) and 450 ppb (850 µg.m⁻³). Young children and asthmatics are potentially at risk during NO₂ pollution episodes. Individuals with chronic bronchitis and emphysema or other chronic respiratory diseases may also be sensitive to NO₂ exposure.

b. Sulphur Dioxide (SO₂):

Is a colourless gas that reacts on the surface of a variety of airborne solid particles. SO₂ is the principle pollutant associated with acid deposition, usually after oxidation to sulphuric acid (H₂SO₄). H₂SO₄ is generally present as an acid aerosol, often associated with other pollutants in droplets or solid particles of various sizes.

SO₂ concentrations of more than 4,000 ppb (10,000 µg.m⁻³) can have severe effects and concentrations of more than 1,000 ppb (2,700 µg.m⁻³) can give rise to immediate problems for asthmatics. Studies indicate reversible decline in child lung function with 100-150 ppb (250-450 µg.m⁻³), aggravation of bronchitis (above 200 ppb) and possible increased mortality (200-400 ppb). High concentrations of SO₂ (> 400 ppb) together with high concentrations of suspended particles are believed to have been responsible for the high mortality levels during the London smog of the 1950s.

c. Carbon Monoxide (CO):

CO is a colourless, odourless and tasteless gas. Once emitted into the atmosphere, CO is slowly oxidised to CO₂.

When inhaled, CO enters the blood stream and may disrupt the supply of oxygen to the body's tissues. Consequential reduced O₂ availability can lead to a wide range of health effects related to blood levels of carboxyhaemoglobin (COHb).

Individuals at most risk from the effects of CO include those with cardiovascular or chronic respiratory problems, the elderly and young children.

d. Particulate Matter:

A complex mixture of organic and inorganic substances. Fine particles ($< 2.5 \mu\text{m}$) contain the secondarily formed aerosols, combustion particles and recondensed organic and metallic vapours. Particulates are frequently referred to as PM_{10} or $\text{PM}_{2.5}$ (aerodynamic diameters of less than 10 and $2.5 \mu\text{m}$). Particulate can be primary (emitted directly to the atmosphere) or secondary (formed by reactions with other pollutants such as SO_2 and NO_x).

Some of the 'lowest-observed effects' of exposure to combined SO_2 and particulates include excess mortality ($500 \mu\text{g}\cdot\text{m}^{-3}$) and acute respiratory problems in adults ($250 \mu\text{g}\cdot\text{m}^{-3}$).

e. Ozone (O_3):

Is a strong oxidising agent, highly reactive. Most tropospheric O_3 is formed indirectly by the action of sunlight on NO_x . O_3 tends to build-up downwind of urban conurbations (where most NO_x is emitted by road transport). The rate of O_3 production depends on the concentration of the reactive compounds and the intensity of sunlight. Hence, O_3 episodes occur on hot days. Volatile organic compounds (VOCs) contribute substantially to atmospheric photochemical reactions and thus O_3 . O_3 lifetime in polluted areas is about one day.

O_3 and other oxidants at hourly levels of about 100 ppb cause eye, nose and throat irritation, chest discomfort, cough and headache. Lower levels can cause deficits in pulmonary function in children.

f. VOCs:

VOCs comprise a wide range of organic carbon compounds such as hydrocarbons (alkanes, alkenes and aromatics), halocarbons (eg. trichloroethylene) and oxygenates (alcohols, aldehydes and ketones); the major VOC is methane which has a background concentration of 1.6 ppm. Some VOC compounds are highly reactive with short atmospheric lifespan, others can have very long lifespan. The short lived compounds contribute substantially to atmospheric photochemical reactions and thus to the formation of O_3 .

No generalisation can be made with regard to human health effects since they are compound specific. However a number of VOCs are known or suspected carcinogens.

g. Benzene:

Benzene is a highly volatile VOC with ambient concentrations

between 1 and 50 ppb. Levels close to major emission sources (eg. petrol stations) can be as high as several hundred ppb. About 80% of anthropogenic emissions of benzene comes from the benzene content and partial combustion of petrol in spark ignition cars. A further 5% comes from the storage and distribution of petrol and 1% from refining. Cigarette smoking may be a significant source of benzene in the indoor environment.

Benzene is known to have both carcinogenic and toxic effects. Studies of workers exposed to high concentrations of benzene (up to 100 ppm) for lengthy periods have demonstrated increased risks of leukaemia. Early signs of toxicity are anaemia, leucocytopenia or thrombocytopenia. Persistent exposure may cause damage to bone marrow leading to pancytopenia and exposure to levels in excess of 1,000 ppm causes neurotic symptoms. No adverse effect on blood formation has been confirmed in humans following regular and repeated exposure to benzene in air at concentrations below 25-30 ppm.

h. Polycyclic Aromatic Hydrocarbons (PAHs):

PAH are a large group of organic compounds with two or more benzene rings. The best known of these is benzo[a]pyrene (BaP) which is present in urban areas at ambient levels in the range 1-10 ng.m⁻³. PAHs are formed as a result of thermal process, especially incomplete combustion, and occur in most urban areas in concentrations of 1-5 ng.m⁻³. PAHs are present in the atmosphere in gaseous form as well as adsorbed onto particulate matter.

BaP is thought to be one of the most carcinogenic PAH. There is some old evidence that prolonged exposure to PAH caused skin cancers in chimney sweeps and tar workers. There is also evidence of an association between lung cancer and exposure to PAH in coke oven workers (at BaP levels of 30 µg.m⁻³) and workers in aluminium smelting plants. There are no known toxic effects other than carcinogenicity.

i. Cadmium:

Cadmium is mainly present in the atmosphere in particulate form. Human exposure to cadmium is via inhalation and through the food chain. Airborne cadmium is absorbed in the lungs and travels to the kidneys and liver where it dissipates zinc in a number of zinc containing metalloenzymes. The cadmium binds with active sites and destroys normal metabolism. Acute and chronic respiratory effects may be expected from exposure to 1 mg.m⁻³ and 20 µg.m⁻³ (for 20 years) respectively.

j. Lead (Pb):

Most of the airborne lead occurs as fine inorganic particles of submicron size (< 10⁻⁴ m). Some 10% or less occurs as organic (eg. alkyl) lead which has escaped combustion. Historically, the principle source of atmospheric lead has been the combustion of alkyl lead additives in petrol. Two of the most important compounds of lead are tetraethyl and tetramethyl lead, both used as anti-knock additives in petrol.

Human exposure to lead is through inhalation of airborne lead and through the food chain (which may contain lead from natural sources). Blood lead concentration gives a good indicator of recent exposure - health effects increase with increasing blood lead levels. The most sensitive body systems to the effects of lead are the haematopoietic system, the nervous system and the renal system. Children are the most sensitive to lead poisoning and studies have indicated (albeit controversially) that children with high levels of lead in their blood can suffer behavioural problems and lower IQ levels.

HEALTH AND TRANSPORT CONFLICTS IN CITIES: Q AND A BRIEF

Q. There is evidence from other countries that current levels of air pollution, in particular the fine particulate matter known as PM_{10} , are harmful, so why do we need further research before taking action?

A. DH is aware of the work of Schwartz and Dockery and co-workers which suggests an association between particles and respiratory morbidity and mortality, and this has been referred to the COMEAP sub-group examining the effects of particles upon health.

In the meantime, I agree that the evidence from epidemiological investigations in North America and elsewhere, is sufficient to give cause for concern about levels of particles in the UK, and reductions in levels should be welcomed. [DH: DoE/DTI/DTP to comment on what action is being taken]

Q. A Government committee (Quality of Urban Air Review Group) advised recently that diesel engine emissions are more damaging to health than petrol emissions. What is the DH view?

A. This is a complex area. I recognise that there is concern about the particles emitted from diesel engines, and this is why we have asked for expert advice on the implications of epidemiological evidence which suggests that low levels of particles may be harmful to health. The committee's work was well under way before publication of the recent QUARG report. However, in terms of fuel economy and emissions of other pollutants such as carbon monoxide and nitrogen dioxide, diesel engines perform better than petrol engines.

Siting of NO_x Monitoring Stations

Line to Take

- Government attaches importance to monitoring. Now spend more than £4m per annum - twice as much as in 1990.
- Our approach is to monitor those areas of higher pollution levels where the most people spend most time. That is why monitors are in those areas of city centres where people spend a lot of time. Simply measuring in areas of high concentration which people are not exposed to is of little use.
- The location of the NO₂ sites were chosen specifically to meet EC Directive, using a considerable amount of sophisticated laser-based equipment and other techniques. This gave us a very detailed picture of pollution patterns in our towns and cities from which to choose the eventual site locations.
- To take account of changing air quality we have subsequently checked, using a 400 site sampling study, to make sure we are not missing any areas of high pollution.

DOE CONTRACT WITH RENDELL SCIENCE FOR ENHANCED URBAN NETWORK

Line to Take

- Improper to discuss the details of individual responses to calls for tender;
- In this case the full process of competitive multiple tendering was undertaken;
- The fact is the contract was awarded on the basis of the best value for money, after very careful examination.

Background

The contract for management of the network was awarded to Rendell Scientific, even though Warren Spring Laboratory had entered what on the surface appeared a somewhat lower estimate. This was after careful consideration of the quality and value for money of the two bids.

We understand that Panorama may have been given details of this by discontented Warren Spring Laboratory staff, and there may be some suggestion that Government may have been given the contract deliberately to a company which was part of a group with transport and roads interest and which might therefore wish to underplay vehicle pollution. Any such suggestion must be vigorously and emphatically denied.

Warren Spring Closure

Line to Take

The closure of Warren Spring Laboratory to form the new National Environmental Technology Centre will not result in any reduction in the Government's environmental research. [Existing contracts will continue]. Government will continue to give a high priority to air pollution research and the NETC will be an important contributor to this work. We wish the NETC well in its establishment in the Spring.

INSTITUTE FOR ENVIRONMENT AND HEALTH**Background note**

1. The White Paper "The Health of the Nation" announced in July last year that the Government would explore the advantages of creating a new focus for work on environment and health in the form of a possible Institute for the Environment and Health. The purpose of the Institute is to provide a focus for research work to define more accurately the link between environmental factors and possible health consequences. Following discussions, the Medical Research Council has set up an Institute for Environment and Health to work on the relationships between environmental factors and the health consequences. The Institute will be located at the Interdisciplinary Research Centre on Mechanisms of Toxicology at the University of Leicester.

2. The Institute will complement, but not impinge on, areas at present covered by Government Departments or other statutory agencies. These include the Health and Safety Executive, who have statutory responsibilities relating primarily to workplace exposures, and the Ministry of Agriculture Fisheries and Food, who work on agricultural chemicals and food safety. Discussion clarified the concerns of some other Departments and agreement has been reached that the Institute would concentrate on issues of chemicals in the physical environment and not social environmental issues, and that duplication with the work of other programmes will be avoided through tight management arrangements. DoE are providing funding of up to £500,000 in the first year (1993-94, likely to be increased in later years); we have agreed £100,000 for the first year.

3. This new Institute will create a new focus for expertise regarding chemical hazards to human health as affected through environmental pathways. The main concern will be for the health aspects of exposure to such chemical hazards. Its creation will facilitate the investigation of possible relationships between chemical pollutants and health, which generate considerable public concern. The Department of the Environment and the

Department of Health are developing a programme of work concerned particularly with exposure to chemical hazards through environmental pathways and expect to place elements of this programme at the Institute. These elements are likely to include research management, monitoring and surveillance, the assessment of the results of research and monitoring studies and international collaboration.

4. The Institute for the Environment and Health will play an important part in the development of UK thinking in the general area of effects of environmental factors upon health.

5. The work of the Institute will be part in-house, but also include the management of research funding. These will result in different activities but in closely related spheres. This note attempts to draw a broad distinction between the in-house and managed work, but recognises in practice that such a distinction will be neither clear nor firm. Contracts from Government Departments will be subject to the normal customer-contractor and tendering arrangements.

Objective

6. The objective of the Institute will be to act as a focus for expertise regarding chemical hazards to human health as affected through environmental pathways. Its work will focus on chemical hazards: substances, excluding infective agents, naturally occurring or man-made, which are or may be released into the environment by any route and exposure to which will, or may, constitute a short- or long- term hazard to health.

7. The main concern is for the welfare of people who are or may be exposed to a chemical hazard through environmental pathways. It will not cover occupational or workplace hazards, or agricultural chemicals and food safety. The work programme will be designed to avoid duplication with activity in Government Departments or statutory agencies.

8. The IEH will have no direct policy making role: its function will be to advise Government. Nor will it be directly concerned with environmental issues abroad, although it will need to keep in touch with developments internationally. Its international role will be in support of Government and not as an alternative to participation by Government departments.

Work Programme

9. The in-house part of the work programme can be characterised as principally being that needed to ensure that the Institute can act as a focus of knowledge about activity in the area of environmental chemicals, concentrating on human health and general environmental effects rather than, say, occupational exposures or agricultural ones. Much of this work will be continuing in nature. It will need to reflect current priorities in the sponsoring Departments and also fit with the wider activities of the MRC. A main aim of this work will be to establish a mechanism seeking to ensure that research, monitoring and surveillance activity (wherever it is undertaken) is co-ordinated and that synergies are identified and developed, thus helping to secure value for money in the resources used.

10. The other work of the Institute will of course principally consist of the management of a research budget. Initially funding will be available from DOE and may, within the priorities agreed under the "concordat" with DH, include MRC funds.

11. The departments would expect the Institute to work to ensure that the results of the research they manage, and research more generally, is networked and presented to appropriate audiences. This would help avoid duplicated effort. Seminars and workshops which the Institute would organise would be used to identify areas for investigation and to help develop scientific consensus in areas of concern.

FLAG K

COORDINATION OF HEALTH POLICY

One of the mechanisms for coordinating health policy issues is the Ministerial Cabinet Sub-Committee set up to oversee development and implementation of the health strategy set out in the Health of the Nation White Paper.

This Committee, on which 16 Departments are represented, is chaired by the Lord President of the Council.

It also a responsibility of coordinating the Government's policies on UK-wide issues affecting health.

Proposals to broaden Health of the Nation would therefore be considered by this Committee, which would also consider and take into account each Department's views and responsibilities.

Interdepartmental Group on Public Health

The Chief Medical Officer chairs an interdepartmental group on public health which is one forum for interdepartmental discussion and exchange of information: it is not a decision-making group.

A background note is attached.

INTERDEPARTMENTAL GROUP ON PUBLIC HEALTH

The Group was originally set up in November 1989 as a result of the Lowermoor Water Incident. Its remit at that time was "to review hazards to public health and in particular the adequacy of the arrangements for hazard identification and advance warning, technical advice on health matters and emergency action".

Following the publication of Health of the Nation and establishment of EDH(H) the group is now working in a different framework and to reflect this its remit has been amended.

The new remit is to:

"Keep under review hazards to public health;
to provide advice to government on the assessment of such hazards;
to provide an interdepartmental forum for discussion of scientific or technical issues that bear on public health;
and thereby
to strengthen and support existing links between other government departments and identify and correct any gaps in communication".

Over the past four years in addition to reviewing the Lowermoor incident the group has also covered topics such as noise, housing, food poisoning outbreaks, pedestrian and consumer safety, risk assessment and management, genetic modification, ozone levels, nutrition and dietary supplements, and air quality.

The composition of the Group reflects the public health interests of Government Departments including representatives from Health, MAFF, Environment, Energy, DHSSNI, DTI, SOHHD, Welsh Office, Transport, DE (HSE), Home Office and OPSS.

CARE OF ASTHMATIC CHILDREN IN SCHOOLS**LINE TO TAKE**

Teachers should in consultation with parents and appropriate medical advice do all that is reasonable to enable children to participate as fully as possible in school life. It is considered good practice where possible for asthmatic children to manage their own condition. General guidance on health care in schools of children with medical conditions is given in DES circular 11/90.

Q. What about the situation where the child needs immediate access to an inhaler and this is locked away?

A. Schools must be responsible. They should know - parents can tell them - whether or not a child is capable of carrying around and using his own inhaler. It is wrong for schools for confiscate inhalers indiscriminately and lock them away.

Q. Some teachers have refused to give children prescribed medicines, what is the Minister doing about this?

A. I can understand teachers apprehensiveness in some cases. But they should consult as necessary with parents and receive proper training from the school health service so that they can be in a position to administer medicines competently and with confidence. Nursing staff should be available if required. It would be wholly wrong for children to be taken out of ordinary schools and placed permanently in a special environment just because they might occasionally need to be given a medicine. Children have a right to a normal education.

Q. Teachers fear they will be held responsible if they make errors in administering medicines or if they allow children to carry medicines unsupervised.

A. Teachers need only act reasonably and in consultation with parents and with medical advice and the school health service.

Third MAAPE report published 13 December 1993

1. On 13 December the Third Report of the Advisory Group on the Medical Aspects of Air Pollution Episodes (MAAPE) was published. A Press notice was released and copies were placed in the library of the House. As with the previous two reports, it is available to the public from HMSO stores.

2. On 21 December there was an article in the *Times* by Margot Norman, relating her experience of driving children to school in London and giving a rather melodramatic account of the vehicle exhaust fumes to which they were exposed. In the course of the article, which was written from a viewpoint clearly sceptical about the will of Government Departments collectively to tackle pollution, she alleged that the Department of Health had refused to let the press see MAAPE's latest report. Moreover she claimed that DOE took seriously the conclusions of a number of international research projects linking nitrogen dioxide with lung damage, and was greatly concerned about the dangers of traffic pollution; DH, on the other hand, was portrayed as being unwilling to accept that there was a link between lung damage and vehicle exhaust fumes, and reluctant to warn the public of dangers.

3. CMO wrote to the *Times* refuting these allegations.

Lancaster University research

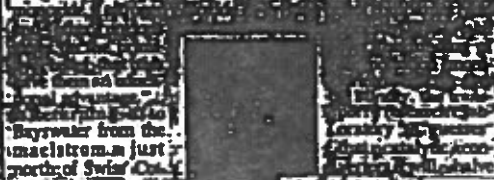
4. Coincidentally, on the day that the above report was published, researchers at Lancaster University published the findings of their survey on the effects of traffic pollution. It was their research that took prominence in the media that day and prompted a number of articles in and letters to the press, resulting in the subject's continuing high profile.

5. Dr John Whitelegge headed a survey of 1,000 households in ten cities in Northern England and Scotland. Houses were chosen on the basis of their distance from or proximity to busy roads; those close to other sources of pollution such as factories were eliminated, and factors such as smoking were taken into account. The report concluded that those living near busy roads were more likely to be affected by ill-health.

6. I attach the relevant press cuttings. The conclusions of the DH-sponsored report above are contained in Annex .

Turn cities into hell-holes?

A horrid image comes to me nowadays whenever I look in the mirror during the school run, which has become a deadly crawl through clouds of poisonous gas. Instead of three little girls in the back of the car I see three beagles in laboratory harness, being forced to chain-smoke cigarettes. I also see a page in a 21st-century history textbook being studied by children in China. In the last days of an epidemic among children, chiefly caused by a barbaric ritual, twice as many parents would expose their children to danger.



Baywater from the maelstrom. A just north of Swiss Cottage, where every morning battle is done between parents trying to deliver children to a dozen private schools, commuters from further north trying to dump their cars and hop on the Tube, and residents trying to get out. I reviewed the evidence.

It was difficult to concentrate. There was a constant slow stream of cars and lorries under my window, completely obscuring the sleeping policemen installed by the council to reduce the traffic hazard. The rank, the colour of the air, the spluttering petrol engines told of pollution as bad as Bangkok or Mexico City. In Rome, hardly a byword for good city government, an edict would have gone out forbidding people to bring cars into the city today. It can't be done in London, where we have no city government at all. Instead, we have a national Government which lies, cheats and prevaricates about traffic emissions so that it can go ahead and spend £2 billion on roads instead of public transport.

Last week the Department of Health refused to let the press see its new report, "Dilemma of Nitrogen". Written by medical specialists to be circulated to doctors for the purpose of post-pushing the anxieties of apothecaries, it recommends not warning the public about nitrogen dioxide levels until they exceed 600 parts per billion, nearly three times the World Health Organisation's safety limit.

Yet over at the Environment Department they accept research from America, Canada, Sweden and Switzerland which names nitrogen dioxide as one of the car-exhaust gases, for asthma and lung damage. And they call nitrogen dioxide the air pollutant of greatest concern.

One of their reports calculated that 79 million Britons were exposed to air pollution that exceeds European Community safety guidelines, but when I asked the environment section of the Transport Department's research laboratory, they said: "Only very, very rarely are those guidelines exceeded anywhere in the UK. Oh really, and where might that be? In the centre of a busy city." I see. Hardly affects anybody then, does it?

Officially, emissions from car exhausts have increased by 73 per cent since 1983. But

which, if any, official measure we can believe? Friends of the Earth exposed official cynicism worthy of Francis Unghart in the measurement of nitrogen dioxide, for which we had a mere seven monitoring stations (compared with 200 in Germany), of which only one, in Glasgow, was sited in an area of heavy traffic as EC criteria demand. The environmentalists protested and nine more monitoring stations were quickly set up. Guess where. Five are in or near pedestrian precincts, some are in parks and some

are in busy areas that is busy often that is impossible, because you often have to drive two miles before a "car" gets hot enough to work. Meanwhile, the conditions in which you sit and choke are, according to that same laboratory, 50 times as high. No, for various reasons I have no space to discuss, environmentalists and motor industry experts increasingly regard the car as a red herring. In London, Westminster council's policy of creating the world's most expensive parking spaces and the world's fastest criminals will do much more good.

MARCOOT NORMAN

Is it beyond our wits to find a way to end the twice-daily school run?

It's only a start, however. I see that of the £7.8 million that Westminster City Council raises from parking dues, and is bound by law to spend on traffic improvements, only 160,000 goes on school transport. John Whicker, the

Lancaster University environmental epidemiologist who hit the headlines the other day with his study linking ill health and traffic volumes, believes the school run is one of the biggest causes of urban traffic problems, and therefore also of health problems.

Surely the time has come to abolish that barbaric twice-daily ritual in private cars, with all its consequences for ill health, ill temper and wasted working hours?

Is it really beyond the wit of London to devise a network of safe school transport serving both state and private schools, funded by parking dues, road pricing and other traffic control measures? Surely not, although it is likely to be beyond the will of London so long as it has no overall strategic elected authority, and so long as John Gummer as minister for London reflects his Government's worship of the car and inability to understand the term "integrated transport policy".

While London filled with fumes through the 1980s, Los Angeles halved its smog levels by dint of installing a light rail system, commuter train services, an underground railway and a car-pool system with designated express lanes, and by applying regulations on diesel and petrol standards, car emissions and vehicle maintenance stricter than any we have even considered. If it had not done so, Los Angeles would have left in droves and the city's economy would have collapsed.

Line: Kenneth Cox (Photo: John)

Heavy traffic drives up the level of ill health

By NIGEL HAWKES, SCIENCE EDITOR

PEOPLE living near busy roads are more likely to experience ill-health, a British study has shown. Headaches, sore throats, breathlessness and tired and aching eyes are all more common among those who live close to heavy traffic.

The two-year Lancaster University project involved 1,000 households in ten cities in northern England and Scotland. Each family answered questions about their health, and the results were compared with measurements of the traffic on the roads outside their house.

Houses close to other sources of pollution, such as factories, were eliminated from the study, and possible confounding factors such as smoking, employment and income were taken into account.

The symptoms most frequently reported were headaches and lack of energy, but the survey also uncovered coughs and breathing difficulties, red and itchy eyes, and sore throats.

Dr John Whitelegg, director of the environmental epidemiology unit at the university when the study was carried out, said that the probability of any household member reporting headaches and lack of energy in the seven days was 0.51 if the volume of traffic was 5,000 vehicles a day. The probability increased by 17 per cent to 0.68 if there were

50,000 vehicles a day. Similar increases in line with traffic volumes were shown for coughs and breathing difficulties (up 14 per cent), red and itchy eyes (up 12 per cent) and sore throat (up 10 per cent).

Seventy per cent of the British population lives in cities, and millions are exposed to traffic volumes of greater than 10,000 vehicles a day.

Dr Whitelegg said the cause could be due to traffic emissions, or even noise. "Other people have found that elderly people or those with young children who live near busy roads suffer from a simple fear of traffic, which might increase their tendency to complain about ill-health. Our results might be a combination of all three factors."

Evidence of the effects of traffic on health is growing. Government-commissioned reports due to be published soon are expected to focus on particulate emissions from diesel vehicles, which are rising rapidly and which have been linked with asthma and other respiratory diseases. Robert Davies, professor of respiratory medicine at St Bartholomew's Hospital in London, said there were more cases of early death, lung disease and cardiovascular problems, as well as more hospital admissions for asthma, in cities with higher levels of emissions of small particles.

Traffic linked to poor health

Tom Sherratt

UP TO 15 million people in Britain could be suffering minor health problems caused by heavy traffic near their homes, according to researchers at Lancaster University.

John Whitelegg, who headed an investigation of 1,000 households in 10 towns over nine months, said yesterday that there was a direct relationship between the number of vehicles passing where someone lived and the amount of illness they experienced — for example, headaches or infections.

The survey was conducted in Glasgow, Edinburgh, Manchester, Stockport, Leeds, Bradford, Preston, Hull, Wakefield, and Newcastle upon Tyne. The national figure of 15 million is an estimate based on the study.

"We asked whether people had headaches, loss of energy, ear infections, runny noses, and itchy red eyes," said Mr Whitelegg, who undertook the study with two colleagues, Tony Gatrell and Paul Naumann.

He said the study was original in that it was controlled to allow for other effects (such as smoking, employment, income, and areas having other possible sources of pollution), and the outcome was tested for statistical significance. "The amount of illness found was sufficient to pass the test, so the results are very conclusive."

Dr Whitelegg, formerly director of a research department at the university and now an environmental consultant, said there was no doubt that motor vehicle exhaust emissions produced injurious pollutants, and that traffic noise damaged health too.

The next step was to remove the cause — and there were already examples in Europe of car-free, bicycle-only communities. "Because travel is so cheap we use it without considering the implications," Dr Whitelegg said. "A lifestyle based on travel is not sustainable any more; travel has to be reduced."

● A survey for the Department of the Environment has found that four out of five people believe they should be protected from tobacco-polluted air. The junior environment minister, Baroness Denton, said yesterday that restaurants, cafes, breweries and bus operators were being asked to consider a smoking policy, to meet the Government's aim of having 80 per cent of public places covered by 1994.

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14th December 1993
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Cough? Cold? You may be traffic-sick

TRAFFIC fumes could be causing millions of 'mystery' ailments, researchers believe.

Unexplained headaches, coughs, colds and lack of energy may be due to living near increasingly busy roads, their study suggests.

And they warn that up to 15million people might be at risk nationwide from the pollution syndrome as traffic routes increase.

The closer families lived to busy

By **DAVID NORRIS**
Industrial Correspondent

highways, the more likely they were to be affected by asthma-like complaints, experts at Lancaster University found. Those with homes well away from crowded roads were less likely to suffer.

Dr John Whitelegg and his team collected information from ten towns and cities — mainly in the North of England and southern Scotland — last year, matching the weight of neighbourhood traffic to the level of 'mystery' illnesses locally.

The results were analysed by a

computer system which isolated other probable causes of sickness, such as smoking, bad diet, and pollution from different sources.

Dr Whitelegg said of the cases identified: 'We can say with some certainty that if they are suffering poor health, it is not smoking, it is not diet, it is not other sources of localised pollution — it is the sheer number of vehicles. We found clear links between the proximity of roads, the number of vehicles using them and poor health. We believe this is a major public issue.'

With the number of vehicles on Britain's roads expected to double to 50million by 2025, the report is certain to renew demands for more spending on the railways to reduce traffic.

Yesterday, the Environment Department said it could not comment on the research, but is about to carry out a similar study. The RAC described the conclusions as over-simplified. 'If people use these findings to jump to ban-the-car demands it will be irrational,' said environment manager Dr Jeremy Vanka.

He said road vehicles account for only half the pollution which could be related to chest complaints — the rest comes from industry. And half of vehicle pollution is caused by buses and lorries. Catalytic converters, which car manufacturers have had to fit since January this year, would bring a 'dramatic' fall in pollution over the next decade, Dr Vanka added.

The Independent
14th December 1993
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Ill health linked to traffic fumes

SCIENTISTS at Lancaster University are claiming a definitive link between poor health and exposure to traffic fumes after a study of 1,000 households in northern England and Scotland, writes Liz Hunt.

The scientists found a strong statistical link between "low level" symptoms such as runny nose, headache, red and itchy eyes, breathing problems and lack of energy, and the volume of traffic passing close to homes.

Dr John Whitelegg, former director of the environmental epidemiology unit at Lancaster University, and colleagues visited eight cities in northern England and Edinburgh and Glasgow, and distributed questionnaires to 1,000 homes in areas where traffic volume was known to have increased.

"We wanted to know what were the health experiences of people on the streets as the traffic increased," he said yesterday. "The results show very clearly that traffic is bad for health."

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turn cities into hell-holes?

A horrid image comes to the nowadays whenever I look in the mirror during the school run, which has become a deadly crawl through clouds of poisonous gas. Instead of three little girls in the back of the car I see three beagles in laboratory harness, being forced to chain-smoke cigarettes.

I also see a page in a 21st-century history textbook being studied by children in China. In the last days of Britain there was an asthma epidemic among children, chiefly caused by a barbaric ritual. Twice a day parents would expose their children to dangerous doses of carbon monoxide, nitrogen dioxide and other noxious gases. In the primitive belief that this gave them an educational advantage.

which, if any, official measurements can we believe? Friends of the Earth exposed official cynicism worthy of Francis Urquhart in the measurement of nitrogen dioxide, for which we had a mere seven monitoring stations (compared with 200 in Germany), of which only one, in Glasgow, was sited in an area of heavy traffic as EC criteria demand. The environmentalists protested and nine more monitoring stations were quickly set up.

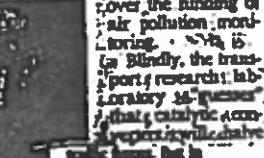
Guess where. Five are in or near pedestrian precincts, three are in parks and one is beside a quiet street. Now the Government plans to stretch the credibility gap yet wider by inviting petrol companies (yet, honestly) to take over the funding of air pollution monitoring.

Blindly, the transport research laboratory guesses that catalytic converters will have

Returned to Bayrwater from the maelstrom a just north of Swiss Alps, where every morning battle is gone between parents trying to deliver children to a dozen private schools, commuters from further north trying to dump their cars and hop on the Tube, and residents trying to get out. I reviewed the evidence.

It was difficult to concentrate. There was a constant slow stream of cars and lorries under my window, conspicuously elaborating the sleeping policemen installed by the council to reduce the traffic (shut).

The stink, the colour of the air, the spluttering pedestrians told of pollution as bad as Bangkok or Mexico City. In Rome, hardly a byword for good city governance, an edict would have gone out forbidding people to bring cars into the city today. It can't be done in London, where we have no city governance at all. Instead, we have a national Government which lies, cheats and prevaricates about traffic conditions so that it can go ahead and spend £2 billion on roads instead of public transport.



It's only a start, however. I see that of the £73 million that Westminster City Council raises from parking dues, and is bound by law to spend on traffic improvements, only £600,000 goes on school transport.

John Whitting, the Lancashire University environmental epidemiologist who hit the headlines the other day with his study linking ill health and traffic volumes, believes the school run is one of the biggest causes of urban traffic problems, and therefore also of health problems.

Surely the time has come to abolish that barbaric twice-daily ritual in private cars, with all its consequences for ill health, ill temper and wasted working hours?

MARCOO NORMAN

Is it beyond our wits to find a way to end the twice-daily school run?

Last week the Department of Health refused to let the press see its new report, "Oxides of Nitrogen". Written by medical strikers to be circulated to doctors for the purpose of post-pushing the statistics of asthmatics, it recommends not warning the public about nitrogen dioxide levels until they exceed 600 parts per billion, nearly three times the World Health Organization's safety limit.

Yet over at the Environment Department they accept research from America, Canada, Sweden and Switzerland which blames nitrogen dioxide as one of the car-exhaust gases, for asthma and lung damage. And they call nitrogen dioxide the air pollutant of greatest concern.

One of their reports calculated that 19 million Britons were exposed to air pollution that exceeds European Commission safety guidelines, but when I asked the environment section of the Transport Department's research laboratory, they said: "Only very, very rarely are those guidelines exceeded anywhere in the UK. Oh really, and where might that be?" In the centre of a busy city, I see. Hardly affects anybody then, does it?

Officially, emissions from car exhausts have increased by 73 per cent since 1981. But

fore a "car" gets hot enough to work. Meanwhile, the emissions in which you sit and choke are, according to that same laboratory, 30 times as high. No, for various reasons I have no space to discuss, environmentalists and some industry experts increasingly regard the car as a red herring. In London, Westminster council's policy of creating the world's most expensive parking spaces and the world's fastest enforcers will do much more good.

It's only a start, however. I see that of the £73 million that Westminster City Council raises from parking dues, and is bound by law to spend on traffic improvements, only £600,000 goes on school transport.

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Surely the time has come to abolish that barbaric twice-daily ritual in private cars, with all its consequences for ill health, ill temper and wasted working hours?

Is it really beyond the wits of London to devise a network of safe school transport serving both state and private schools, funded by parking dues, road pricing and other traffic control measures? Surely not, although it is likely to be beyond the will of London so long as it has no overall strategic elected authority, and so long as John Gummer as minister for London reflects his Government's worship of the car and inability to understand the term "integrated transport policy".

While London filled with fumes through the M25, Los Angeles halved its smog levels by dint of installing a light rail system, commuter train services, an underground railway and a car-pool system with designated express lanes, and by applying regulations on diesel and petrol standards, car emissions and vehicle maintenance stricter than any we have even considered. If it had not done so, Los Angelenos would have left in droves and the city's economy would have collapsed.

21-12-93 Missing Year

Line Norman (a choice firm)

AIR POLLUTION - INTERDEPARTMENTAL COMMITTEES**ADVISORY GROUP ON THE MEDICAL ASPECTS OF AIR POLLUTION EPISODES (MAAPE)****Terms of reference**

1. Set up by CMO in 1990, to look at the short term health effects of episodic exposure to air pollutants and provide advice to the Chief Medical Officer in accordance with the Terms of Reference:

To consider whether advice about personal protective measures during air pollution episodes should be given by Central Government and, if so, what that advice should be, to whom it should be addressed, and the criteria which should be adopted for the issuing of any advice.

First Report - Ozone

2. Published 1 August 1991. As part of its study of ozone the Group reviewed papers on the changing prevalence of asthma both in the United Kingdom and other parts of the world in an attempt to discover whether there is a link with ozone levels. The Group concluded that the data put forward in support of the hypothesis that exposure to such levels of ozone or other air pollutants as occur in the UK cause people to become asthmatic is not persuasive. However, the Group recommended that more work be done on the possible interrelationship between pollution levels and asthma.

3. The Advisory Group made a number of recommendations for research, including basic research on the biochemical and cellular mechanisms involved in the effects of ozone on the lung; research on the effects of low concentrations of ozone upon man; and epidemiological studies on the possible relationship between exposure to air pollutants in general, and ozone in particular, on health. The Department has raised this with the Medical Research Council which is the main agency through which the Government supports biomedical and clinical research in the United Kingdom.

Second Report - Sulphur Dioxide, Acid Aerosols and Particulates

4. Published by HMSO on 28 October 1992. The main conclusions of this report, in brief, are :

- (a) individuals not suffering from respiratory disease are not affected by raised levels of SO₂.
- (b) asthmatics tend to be more sensitive than non-asthmatics to SO₂, and in the UK (notably Belfast) winter levels often exceed those at which tightness of the chest, wheezing etc might be experienced by asthmatics.
- (c) again, asthmatics are likely to be more sensitive to acid aerosols but there are insufficient data to predict effects of current levels.
- (d) spending less time out of doors on high pollution days may ameliorate adverse effects.
- (e) there is no case for recommending smog masks.
- (f) advice should be available to public so that vulnerable groups can reduce exposure.

Third Report - Oxides of Nitrogen

5. Published on 13 December 1993. It concerns the effects of episodes of elevated concentrations of the oxides of nitrogen that occur in parts of the UK. The oxide of nitrogen of most concern in outdoor air is nitrogen dioxide; the Advisory Group has concentrated on this pollutant.
6. The available evidence indicates that individuals not suffering from respiratory disease will be unaffected by such episodes of elevated concentrations of nitrogen dioxide as occur in the UK. When studied in the laboratory there is no consistent difference in sensitivity to nitrogen dioxide between asthmatic patients and normal individuals. Some recent epidemiological studies however have indicated that persons suffering from respiratory disorders, including asthma, may experience a worsening of their symptoms when ambient levels of nitrogen dioxide and associated pollutants are raised.
7. It was recommended that health warnings and advice regarding nitrogen dioxide episodes should be issued only in exceptional circumstances. However, information on levels of nitrogen dioxide should continue to be provided via the telephone helpline service. It is not considered necessary to advise individuals to wear protective equipment such as smog masks to defend against the effects of elevated concentrations of nitrogen dioxide.
8. CMO has written to doctors informing them of the conclusions of this report.

AIR POLLUTION - INTERDEPARTMENTAL COMMITTEES

**COMMITTEE ON THE MEDICAL EFFECTS OF AIR POLLUTANTS
(COMEAP)**

1. Set up in early 1992 under the Chairmanship of Professor Stephen Holgate of Southampton University. The Committee's terms of reference are:

At the request of the Department of Health,

(a) to assess and advise Government on the effects upon health of air pollutants both in outdoor and indoor air, and to assess the adequacy of the available data and the need for further research.

(b) to co-ordinate with other bodies concerned with the assessment of the effects of exposure to air pollutants and the associated risks to health and to advise on new scientific discoveries relevant to the effects of air pollutants upon health.

2. The Department has asked the Committee to advise on:

(a) the link between exposure to low levels of air pollution and asthma.

(b) the effects of exposure to ambient levels of carbon monoxide in urban areas.

(c) the effects of exposure to benzene.

3. The Committee's report will be published.

EXPERT PANEL ON AIR QUALITY STANDARDS (EPAQS)

1. The Department of the Environment's Expert Panel on Air Quality Standards was set up following the Government's commitment in the 1990 Environment White Paper to recommend air quality standards for the United Kingdom.

The Expert Panel on Air Quality Standards (EPAQS) was set up by the Secretary of State for the Environment in 1991 following the undertaking, in the Environment White Paper 'This Common Inheritance' published in September 1990, to establish an expert panel to advise the Government on air quality standards. The terms of reference of the Panel are:

'To advise, as required, on the establishment and application of air quality standards in the United Kingdom, for purposes of developing policy on air pollution control and increasing public knowledge and understanding of air quality, taking account of the best available evidence of the effects of air pollution on human health and the wider environment, and of the progressive development of the air quality monitoring network.'

2. The Panel is chaired by Professor Antony Seaton, Head of the Environmental and Occupational Medicine at Aberdeen University Medical School and members include medical experts, amongst whom is the Chairman of DH's Committee on the Medical Effects of Air Pollutants (COMEAP) and air pollution monitoring experts including the Chairman of the DoE's Quality of Urban Air Review Group (QUARG).

3. The Panel have taken advice from DH on health effects and from DoE and others on current concentrations, distribution, trends and monitoring of ozone and benzene, as well as taking account of WHO guidelines and the EC Directive on ozone. The subjects of the first two reports are related inasmuch as the main source of each pollutant is motor vehicle exhaust emissions - benzene directly, and ozone as a secondary pollutant created by photochemical action on the primary pollutants from exhausts. EPAQS has published reports on ozone and benzene. These are the first of a series of reports on pollutants suggested to EPAQ by DoE and DH.

Recommended Standards and Targets**Ozone**

4. The Panel propose that the current recommended standard - 50 parts per billion (ppb) on a rolling 8-hourly basis, which is below the concentration at which health effects have been detected experimentally - should, by the year 2000, be exceeded on no more than 30 days per year at any one monitoring site.



Air 1/1/1

T/152

Richmond House 79 Whitehall London SW1A 2NS Telephone 071 210 3000
From the Secretary of State for Health

RESTRICTED - POLICY

Copy: PS/Deanters

copy [Redacted]
Dr. Young

The Rt Hon Kenneth Clarke QC MP
Chancellor of the Exchequer
Her Majesty's Treasury
Treasury Chambers
Parliament Street
LONDON
SW1P 3AG

[Redacted]

SP/Adw

CRK
14/9

// September 1995

Dear Kenneth

TAX TREATMENT OF ALTERNATIVE FUELS

George Young wrote to you about the report produced by officials on the tax treatment of alternative fuels. I have also seen letters from John Gummer (21 August) and Ian Lang (22 August). I am writing now to support the proposal for some adjustments to the relative duties.

As you may know recent scientific developments have strengthened the suspicion that some types of air pollution have an effect on health. I hope we will be able to discuss this soon with George Young, John Gummer and the Chief Medical Officer. I understand that, while the evidence remains uncertain in some respects, there is now a widespread scientific consensus that air pollution has effects on health beyond respiratory diseases such as asthma, and indeed that the effects on mortality may well be greatest among the elderly who die of heart/lung disease.

Ian Lang comments that he understands the position as regards health effects of particles is still "highly uncertain" and he wonders if we should rely on possible public health effects as the basis of any duty adjustments. The scientific evidence is certainly accumulating rapidly, and the position seems clearer now than it did a year or so ago. My Department's expert advisory committee - the Committee on Medical Effects of Air Pollutants will be publishing a report in October on the effects of particles. This will confirm that the medical/scientific consensus now is that there are health effects, which seem to include premature deaths, and although in many cases the deaths may be hastened by only a few days the public reaction to the report will inevitably increase pressure on us to respond.

pw95aug.5a



We need to be in a good position to respond to both the legitimate concern which may be felt by many members of the public, and also to more alarmist interventions which may come from pressure groups. In this position, I think the changes which colleagues support - to reduce duties on road fuel gases, and to support "city diesel" and particle traps - are sensible ones. They would go some way towards responding to the concerns about the health effects of exposure to airborne particles which will be the subject of one of the reports published in the autumn. Accepting these recommendations will show that we are looking widely at the options to reduce some of the adverse effects of road traffic, while continuing consideration before any more fundamental decisions in the light of, for example, the report last year by the Royal Commission on Environmental Pollution.

I am copying this letter to George Young, Ian Lang, John Gummer, and Douglas Hogg.

A handwritten signature in black ink, appearing to read 'Stephen Dorrell', with a large checkmark above it.

STEPHEN DORRELL



Richmond House 79 Whitehall London SW1A 2NS Telephone 071 210 3000
From the Parliamentary Under Secretary of State

POH(6)4368/60

Tam Dalyell Esq MP

Dear Tam,

04 JUL 1994

Thank you for your letter of 3 June to Brian Mawhinney enclosing a copy of William Bown's article on diesel that appeared in the New Scientist and requesting comments. As this subject is part of my Ministerial responsibilities, I have been asked to reply.

The Department of Health's expert advisory Committee on Carcinogenicity and the International Agency for Research on Cancer have evaluated diesel exhaust as a probable human carcinogen. Epidemiological studies of workers exposed to high concentrations have shown an increased risk of lung cancer. However, these studies, like others in the field, were retrospective and excluded control for tobacco smoking which is the major influence on the development of lung cancer.

The World Health Organisation (WHO) has set guideline levels for various air pollutants. These incorporate wide safety margins and are intended to be levels above which action should be taken to reduce the pollution and are not indications that exceedences of the levels are likely to produce a health risk. The concentrations of pollutants in the UK associated with traffic sources are, in most circumstances, below WHO guideline levels. Levels of diesel exhaust in ambient air are certainly very much lower than those to which the workers considered in the studies referred to above were likely to have been exposed. It is considered that though some risk of cancer as a result of exposure to diesel exhaust in ambient air cannot be absolutely excluded, this risk is very small; much smaller in fact than many other risks encountered every day.

The Department is well aware of the concern about the possible adverse effects of air pollutants on public health and is advised by two groups of independent experts - the Advisory Group on the Medical Aspects of Air Pollution Episodes (MAAPE) and the Committee on the Medical Effects of Air Pollutants (COMEAP).

MAAPE has considered the effects of human health of episodes of air pollution in the UK and published its conclusion in three reports covering specific pollutants. It is currently working on its fourth and final report, on the effects of exposure to mixtures of air pollutants.



One problem identified in the MAAPE reports is that, although it is clear that elevated concentrations of some air pollutants can exacerbate pre-existing respiratory conditions such as asthma, the evidence that it can cause the condition in those not previously affected is still inconclusive. Since there are other causes which are known to result in the development and exacerbation of respiratory conditions in individuals, it is not yet possible to set up a system of reporting those conditions which can be specifically attributed to air pollution.

In addition, COMEAP has formed two sub-groups to consider (a) the relationship between air pollution and asthma and (b) the health effects of small particles. The first of these sub-groups is expected to report later this year; the report from the second sub-group is expected in 1995.

This Department's advice to other Departments is related to the latest toxicological and other evidence. We will always consider modifying that advice should results from later research indicate that is necessary. We have close working relationships with the other Departments involved, namely, the Departments of Environment and Transport and the Treasury and ensure that they are aware of the latest scientific understanding.

BARONESS CUMBERLEGE

AIR/11



Press Office

From Dr R L
Maynard

11 May 1994

Copies



PS/PS(L)
PS/CMO

AIR POLLUTION : PARTICLES.

Issue

Press coverage is likely tomorrow on the Department's position on emissions of particles from, amongst other sources, diesel exhaust.

Background

1. A press briefing was held to launch the first report of the Institute for Environment and Health (IEH) at 11.00, Wednesday 11 May. The report is titled: Air Pollution and Health: Understanding the Uncertainties and records the discussions at and outcomes of a workshop held at IEH 2-4 February 1994.
2. The briefing was chaired by Professor Lewis Smith (Director IEH). He was accompanied by Professor Anthony Newman Taylor (Chairman of the Workshop), Dr Paul Harrison (IEH), Dr Linda Smith (DOE), Dr Martin Williams (DOE) and Dr Bob Maynard (DH).
3. Press present included representative of The Guardian, The Times, The Telegraph, New Scientist and ?BMJ. DOE press office will have names.
4. The briefing went generally well though DH came under intense questioning on the effects of particles upon health. Attention was turned to the report of the Quality of Urban Air Review Group on Diesel Vehicle Emissions and Urban Air Quality. DH was asked for its views on the effects of particles upon health.
5. I put forward the advice DH has received from COMEAP: pointing out

that some research has shown associations between long term average concentrations of particles and mortality statistics,

similarly, that associations had been demonstrated between short term changes in levels of particles and a wide range of indicators of ill-health

that a biologically plausible explanation of the short term effects was lacking

that COMEAP had been asked for advice on this and had recommended that a precautionary approach should be taken with regard to particles and thus that a reduction in levels of particles should be welcomed.

6. I was asked whether this meant that an increase in particle levels should be resisted. I said it did.
7. Interest was also shown in possible links between air pollution and asthma. Professor Newman Taylor dealt well with these questions and raised the studies of comparisons between levels of respiratory diseases in East and West German cities. The press were very interested in this and pressed for details.
8. None of this is new, in particular the line taken by me on particles and by Professor Newman Taylor does not deviate from the line taken by CMO during the Panorama interview earlier this year. However, some of the journalists present seemed to have only now woken up to the issue, and were only interested in what they saw as a new line.
9. Press coverage is likely tomorrow.
10. Q and A briefing provided for the Panorama interview remains relevant.

R L Maynard
658 (C) SKH

THE EFFECT OF DIESEL FUMES ON HEALTH

STATEMENT BY THE COMMITTEE ON THE MEDICAL EFFECTS OF AIR POLLUTANTS

There is some evidence that exposure to very high concentrations of smoke from diesel engines may contribute to lung cancer in certain occupational groups, but it is unlikely that ordinary street exposure would have such an effect as the exposures are far lower. Diesel emissions account for much of the particles present in air and reductions in their levels should be welcomed, on a precautionary basis.

Diesel engine emissions were considered by a Government Committee, the Quality of Urban Air Review Group (QUARG), who advised in January 1994 that they are more damaging to health than petrol emissions. QUARG is a Department of the Environment advisory group.

However, this is a complex area. I recognise that there is concern about the evidence, from epidemiological investigations in North America and elsewhere, on particles emitted from diesel engines. This evidence has been referred to the Department of Health expert Committee on the Medical Effects of Air Pollutants (COMEAP) sub-group examining the effects of particles upon health. They can advise the Government whether this confirms a cause and effect link between particulate matter and ill health.



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R10/1/11

DEPARTMENT OF HEALTH
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August 28, 1992

Dear [REDACTED]

Thank you for your letter of 13 March to the Department of Environment requesting some information on diesel fuel. As your main concern is the health aspects, it was forwarded to this Department for reply. I am sorry for this delay in replying.

Several studies have been conducted both here and abroad on the carcinogenic properties of smoke from diesel vehicles. Though not all of these studies yielded positive results, overall they were consistent with a weak carcinogenic effect, shown most clearly in rats subjects to very high concentrations for long periods.

The Committee on Carcinogenicity, an independent expert advisory group, which advise the Department of Health, has looked at several reports and concluded that the main experimental and epidemiological data indicate that exposure to diesel exhaust can have a carcinogenic effect at occupational levels sustained over long periods. The possibility of a small increased risk of lung cancer due to general environmental exposure to diesel exhaust cannot be excluded on the evidence currently available. Insofar as the carcinogenic properties appear to be associated with the particulate component, as a matter of prudence the design, maintenance and operation of diesel engines should be such as to minimise these particulate (i.e. smoke) emissions, notably in applications where substantial occupational exposure may occur.

The Royal Commission on Environmental Pollution has been conducting a study on emissions from heavy duty diesel vehicles and produced a Report entitled **Emissions from Heavy Duty Diesel Vehicles**. This Report was published by Her Majesty Stationary Office (HMSO) in September 1991 and can be borrowed from your local library.

For general information on air pollution by vehicles, I am enclosing a copy of the latest statement of Government Policy on Air Pollution which you may find interesting.

[REDACTED]

Yours sincerely,
[REDACTED]



STATEMENT OF GOVERNMENT POLICY, IN THE FORM OF ANSWERS TO
QUESTIONS, ON AIR POLLUTION BY VEHICLES

Q1: What is the Government doing about emissions from motor vehicles?

A1: Stricter limits on emissions were recently agreed by the UK and its EC partners.

On 26 June 1991 the EC Council of Ministers adopted an amending directive 91/441/EEC setting tighter limits on emissions of carbon monoxide, hydrocarbons and oxides of nitrogen (NOx) by new cars and light vans. The standards set by the directive will require virtually all new petrol-engined cars from the end of 1992 to use three-way catalytic converters and to run on unleaded petrol. Diesel cars and light vans will additionally need to comply with a strict limit on particulates (smoke).

On 1 October 1991 the EC Council of Ministers adopted an amending directive 91/542/EEC prescribing stricter limits on the same gaseous emissions from new diesel-engined trucks and buses over 3.5 tonnes. Limits on emissions of particulates are also set for the first time. There will be two stages, the first to take effect in 1992/93 and the second in 1995/96, with the potential for a third, starting in 1999. The 1992/93 stage substantially reduces the limit for emissions of NOx and establishes limits for particulate emissions. The 1995/96 stage goes further with NOx reduction, so that the limit value will be less than half its present value, and reduces the particulate limit value to a level of stringency similar to that to be applied in the United States from 1994.

Both directives set ambitious targets with a challenging but industrially realistic timetable, putting the United Kingdom and its EC partners on a course for substantial longer-term progress in improving the quality of air in our towns and cities.

Regulations will shortly be laid before Parliament introducing the Directives into UK law.

Q2: What about carbon dioxide (CO₂)?

A2: The Government is pressing the EC Commission to propose a directive to control CO₂ emissions from motor vehicles using a system of Tradable Credits. The Government wishes in this way to ensure effective control of this important greenhouse gas.

The basic idea of tradable credits is that a regulatory authority would set an average fuel efficiency target for manufacturers and importers to achieve from sales of new cars. As each car was registered, it would qualify for a credit if it performed better than the target. If the car

performed worse than the target, the manufacturer or importer would need to deposit credits with the regulator. To obtain the necessary credits they would have several sources available to them: to transfer credits earned by some of their other vehicles, buy credits directly from another manufacturer, or buy credits deposited with the regulator. In setting up the scheme, agreement would need to be reached on setting the initial target and on its subsequent tightening. As well as stimulating technical innovation, the scheme should encourage "downsizing" through a shift to smaller, more fuel-efficient cars. Alternative fuels may also receive a stimulus.

The system would not be the American CAFE [pronounced "ka-fay"] scheme in another guise. The Government is aware that the CAFE scheme had major problems, and the Tradable Credit Scheme has been deliberately conceived to avoid these.

Q3: What about fuel economy as a means of reducing emissions?

A3: The Government gives advice periodically to motorists on fuel efficient driving. They should make sure, for example, that the car is properly tuned and serviced, that the tyres are properly inflated to the right pressure, and that they only use the choke when it is absolutely necessary. Other measures they can take are to avoid heavy braking, try to accelerate smoothly from a standing start, cruise smoothly and avoid carrying unnecessary weight.

The Government already requires fuel consumption testing and labelling of new cars and publishes a list of fuel consumption figures every six months.

Q4: What can manufacturers do to improve fuel efficiency?

A4: The Government has been consulting the Society of Motor Manufacturers and Traders about the various ways in which fuel efficiency might be improved by better vehicle design.

Q5: What about the increased cost of the new limits to car drivers?

A5: The Government accepts that three-way catalyst technology can be expensive because fuel injection and electronic engine management are needed. Nevertheless, some models with a catalyst option are already coming on to the market at little or no extra cost to the customer.

Q6: Why will catalysts be necessary?

A6: The new tighter NOx limits can only be met at present with three-way catalyst technology.

Q7: Are UK manufacturers content with the new limits?

A7: They accept that catalysts are now the way forward. They are relieved that the future for emission standards has now been clearly charted.

Q8: Will the new limits promote unleaded petrol?

A8: Yes. Vehicles with catalysts MUST use unleaded petrol.

Q9: Will the effect of the new limits be cancelled out by traffic growth?

A9: It is currently estimated that even with the highest projected traffic increases overall vehicle emissions other than CO₂ will be reduced. Building better roads should encourage a freer flow of traffic and help to cut down local traffic pollution and fuel wastage.

Q10: Health effects?

A10: The effect of diesel emissions on health is being examined by the Department of Health. Research in the UK so far suggests that diesel emissions in the air, even in places of heavy traffic congestion, present a very low level of health risk.

Q11: What is the Government doing about carcinogenic emissions?

A11: Recent work by the University of East Anglia for the Government suggests that about 11,000 metric tonnes of benzene and 40 of polycyclic aromatic hydrocarbons [the substances in question] are emitted each year from road transport. These emissions will be progressively reduced to a much lower level, once the two new EC directives are brought into effect.

Q12: Why not promote methanol as a fuel?

A12: US interest in methanol as a "clean" motor fuel is linked to its low emissions of particulates and oxides of nitrogen. However, there is a problem with relatively high emissions of formaldehydes which could carry health risks. Leaving aside cost factors, it has operating disadvantages which would mean either accepting a restricted range or roughly doubling the size of the fuel tank.

Q13: Compressed natural gas (CNG)?

A13: Admittedly, CNG would generate lower CO₂ and particulate emissions, but could lead to higher emissions of oxides of nitrogen. For cars fitted with catalysts, ultra-low emissions may be possible. The problem with CNG is cost and the absence of a national network of supply. High-pressure vessels would be needed at every stage of the supply chain, as well as on vehicles.

Q14: Liquefied petroleum gas (LPG)?

A14: It offers little scope for reduced CO₂ emissions due to limited supply. Benefits compared with petrol are much smaller than for natural gas, and will be reduced when new EC limits are introduced.

Q15: Electric road vehicles?

A15: They offer very low levels of local pollution, but this is not the whole picture. If the electricity needs to be generated by fossil fuels, it is unlikely that there will be any overall reduction in CO₂. Wider use depends very much on the future availability of advanced batteries offering greater range and performance.

Q16: Hydrogen?

A16: Experience to date is limited to experimental vehicles. It produces no CO₂, but requires a great deal of energy to produce (by electrolysis of water) and presents considerable storage difficulties.

Q17: What about tighter enforcement in MOT and HGV tests?

A17: On 1 November 1991 a new MOT emissions check came into effect. By encouraging motorists to keep their engines in tune, it will mean that less fuel is burnt and therefore fewer pollutants are emitted. It is expected that the check should improve fuel consumption and hence reduce carbon dioxide emissions by about 4% averaged over the 16½ million cars and light vans in the MOT scheme, with substantially larger reductions in carbon monoxide and hydrocarbon emissions (perhaps 10 to 15%).

During 1992 the Government also plans to introduce an instrumented smoke check into the annual roadworthiness test procedure for large goods vehicles and buses.

Q18: What about the company car?

A18: At present company cars tend to be large gas guzzlers and account for over half (51%) of all new vehicle registrations. Consequently, they have a significant influence on car design and the second-hand car market. By hitting the "perk" company car in the last four Budgets, it has been the Government's aim to place more emphasis on fuel economy and environmental protection rather than "status" cars.

Q19: What about fiscal incentives to switch from petrol to diesel?

A19: The greater efficiency of diesel compared with petrol is an incentive on its own. Diesel engines are 25 to 30% more efficient than petrol engines. So, even if derv and petrol were the same price (derv is cheaper), diesel vehicles would cost 25 to 30% less to run per mile.

Environmentally, the issue is a prime example of the

difficulty of setting different environmental factors against each other in a comparable manner. Diesel cars are generally worse emitters of oxides of nitrogen, but better on carbon monoxide and CO₂ than their catalyst petrol-engined counterparts.

Q20: Incentives to buy catalyst-fitted cars?

A20: This is a matter for the Chancellor of the Exchequer, but the time interval is very short until catalysts become mandatory, namely 31 December 1992.

Q21: What is the law at present on air pollution by vehicles?

A21: Legislation currently in force is set out in the Road Vehicles (Construction and Use) (Amendment) (No 2) Regulations 1990 (SI 1990 No 1131). Copies, price £2.00, are available by telephone or mail from -

HMSO Publications Centre
PO Box 276
LONDON SW8 5DT
Telephone orders 071 873 9090
General enquiries 071 873 0011.

If you call in person, you may purchase copies from -

HMSO Bookshop
49 High Holborn
LONDON WC1V 6HB
Tel: 071 873 0011,

or from other regional HMSO Bookshops.

From the Regulations you will see that they specify the dates on which certain European Community (EC) Directives come into force in GB. They do not repeat the emission limits contained in those Directives. To find these you will have to purchase copies of the Directives from one of the above addresses by quoting the reference numbers contained in the above Regulations.

The Regulations will shortly be updated to incorporate the two recently adopted EC Directives (see Q1 and A1).

Q22: What are the authorities responsible for regulating air pollution by vehicles?

A22: Emission limits are adopted by the EC Council of Ministers in the form of Directives. These do not have the force of law in GB until they are given effect, -

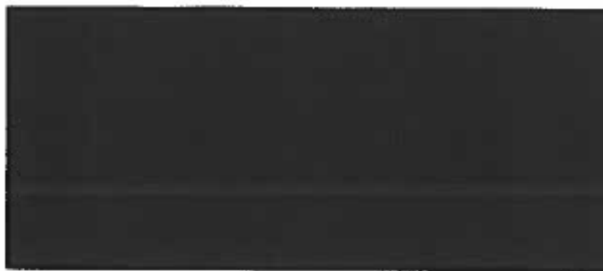
(a) as respects type-approval, by regulations made under section 54 of the Road Traffic Act 1988, and

(b) as respects construction and use, by regulations made under section 41 of that Act.

The Act is obtainable from the above addresses, price £9.50. Alternatively, you may have recourse to your local authority's central reference library which may retain copies of the Act and related regulations.

Q23: What about the greenhouse effect?

A23: This is a responsibility of the Department of the Environment. For information you should write to -





Air 1/1/53

Skipton House 80 London Road London SE1 6LW Telephone 071 972 2000
Direct line 071 972 5318

Chairman and Members of COMEAP

25 August 1994

FAX: 071 972 5167

Dear Member

COMEAP MEETING - JUNE 1994

At the last meeting of COMEAP a draft statement on diesel emissions was discussed. In the light of that discussion the second sentence of the draft was deleted. The statement now reads:

In view of the contribution made by diesel emissions to urban levels of airborne particles and recent evidence regarding the health effects of exposure to low levels of particles, COMEAP consider that there is no case for recommending diesel engined motor cars in preference to petrol engined motor cars on health grounds.

Please send me any comments you have on the amended text by fax before Friday 9 September. The statement will then be regarded as agreed.

Thankyou

Yours sincerely



Scientific Secretary, COMEAP



POH(5)2294/208

Sir Hugh Rossi MP

Richmond House

79 Whitehall

London SW1A 2NS

Telephone 01 210 3000

*From the Parliamentary Under
Secretary of State for Health*

14 April 1990

Dear Hugh,

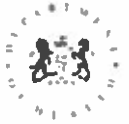
Thank you for your letter of 7 March enclosing one from Dr S P Wolff, Lecturer in Toxicology at University College, London and including a copy of his paper entitled 'Public Health versus Public Policy'.

I shall confine this reply to comments on those parts of the paper which deal with the health effects of motor vehicle emissions. All other aspects, including road traffic accidents, will be dealt with by the Department of Transport, to whom, I notice, a copy of the paper has been sent.

The Department of Health has a responsibility for questions relating to any health effects of pollution from motor vehicles. Input on this is done through an inter-departmental committee, which consists of the Departments of Energy, Environment, Trade and Industry and Transport, as well as the Department of Health. Adverse effects on health of both primary and secondary pollutants with petrol and diesel engine exhausts, as referred to on page 10 of Dr Wolff's paper, are considered in relation to control measures. The introduction of unleaded petrol, for example, has opened the way to improved control of other pollutants, through the use of catalytic converters.

In the UK there is a long history of research into the effects of general air pollution and environmental epidemiology. In particular there has been a lot of research on health aspects of the formerly very high levels of smoke and sulphur dioxide from coal-burning. In that situation it was possible to draw useful inferences from relatively crude studies, since there were some clearly recognised effects (increased morbidity and mortality from respiratory diseases) and routine (outdoor) monitoring data provided a reasonable guide to exposure.

C A R I N G F O R T H E 1 9 9 0 s



The problem today is more complex. On the one hand effects of the pollutants that remain are less clearly defined and on the other hand assessment of exposures has become more difficult, since concentrations of the traffic pollutants that have become relatively more important are liable to vary greatly over short distances. Further, homes are becoming more effectively sealed against draughts. Restrictions on the interchange of air between the outside and inside has made it necessary to consider indoor as well as outdoor concentrations of pollutants.

It is thus difficult to draw any clear conclusions from the examination of local variations in mortality and morbidity using only routinely collected data. Apart from the points mentioned above, confounding factors such as smoking and socio-economic circumstances can be important. Epidemiological studies related specifically to vehicle exhausts have been focussed mainly on occupational groups, among whom exposures may be more substantial and more readily determined. There are some possibilities for studying acute effects among sensitive groups in the general population during periods of relatively high pollution, and these are being examined currently.

I hope that you find this helpful. I am copying this reply to Robert Atkins at the Department of Transport.

h m m o m
Rogers
ROGER FREEMAN

6A



DEPARTMENT OF HEALTH
Hannibal House Elephant and Castle London SE1 6TE

Telex 883669

Telephone 01-972 2000



Your reference:

Our reference: AIR/1/1 Vol 4

Date: 28 March 1990

Dear [redacted]

Thank you for your letter to Mr Clarke of 22 February enclosing a copy of a letter which you sent to the Secretary of State for Transport, about the East London Assessment Study.

You asked for comments on the public health impact of the proposed traffic schemes. The question of the control of levels of pollution in the air is the responsibility of the Department of the Environment, and I note that you have copied your letter to them. It may be helpful if I provide you with some general information about motor vehicle pollutants, and their effects on human health.

The levels of air pollution from vehicle exhausts in UK cities are generally within the World Health Organisation's Air Quality Guidelines for Europe. These are set at levels well below those known to cause harmful effects, and incorporate large margins of safety.

There are substances present in car exhausts which have harmful properties, but their effect on the health of the population depends on the level of exposure. Carbon monoxide (CO) is one of the most important of these potentially harmful substances. As it can be easily measured in the atmosphere and in the blood it provides a useful indication of the level of exposure to traffic fumes in general. Studies have shown that although levels of CO in busy streets are found to be occasionally quite high the actual level of uptake, even by highly exposed groups such as point-duty policemen, is small and most unlikely to lead to health problems.

It is recognised that direct exposure to diesel exhaust fumes can be unpleasant and may cause irritation to the eyes and throat. Although substances present in diesel fumes can be toxic to laboratory animals when they are exposed to extremely high concentrations over a lifetime, they are not known to have any adverse long-term effects on humans, for whom exposure is normally transient and at much lower levels than those used in experimental conditions.

Regarding action which the UK Government is taking to reduce emissions, you will be pleased to learn that the UK Government has urged the European Commission to come up with strict new standards for the control of diesel emissions from trucks and buses. They would be contained in a European Community Directive, and it is very likely that they would become compulsory throughout the Community. Also, the European Community Environment Council agreed on 9 June 1989 a Directive on emission standards for small cars - that is those under 1400cc. This Directive will set tight standards for petrol and diesel engined cars, covering both particulates and gaseous emissions. The UK Government played a leading role in reaching this agreement which will both produce substantial environmental benefits and give the motor industry a clear framework for planning its future car production. A consolidated directive imposing similar standards for other car sizes will follow shortly.

Commercial vehicles are already subject to annual tests in the UK. The exhaust smoke emissions have to be within statutory levels, and a vehicle cannot regain its operating licence until they are. In addition the Traffic Commissioners can withdraw the operating licence from any vehicle at any time if they consider it is emitting excessive smoke and fumes, while the police can prosecute for excessive emissions. So anyone seeing a bus, taxi or other should telephone the police or their nearest traffic area office with the registration number of the vehicle and the time, date and place of the incident.

I hope that you find this reply helpful.

Yours sincerely





14A
DEPARTMENT OF HEALTH
HANNIBAL HOUSE Room No. 918A
ELEPHANT AND CASTLE LONDON SE1 6TE
TELEPHONE 071-972 2000 ext. 22131
GTN (396)

Your reference AIR/1/1
Our reference

24 June 1991

Dear 

I have been asked to thank you for your letter of 5 June 1991 to Mr William Waldergrave expressing your concern about air pollution, motor vehicles and petrol fumes.

I am enclosing a booklet produced by the Department of the Environment which you may find of interest.

The concentrations of pollutants in the UK such as carbon monoxide and nitrogen dioxide, associated with traffic sources, are in most circumstances below those assessed by the World Health Organisation (WHO) and other advisory groups to have detectable effects on health. The effects of airborne emissions of pollutants at levels currently experienced cannot be isolated from many other factors unrelated to air contaminants which may contribute to health problems.

In more general terms, we are trying to reduce emissions from cars, lorries, etc., and you may be interested to know that the Government has urged the European Commission to introduce strict new standards for the control of diesel emissions from lorries and buses. They would be contained in a European Community Directive, and it is very likely that they would be compulsory throughout the Community. Also the European Community Environment Council agreed on 3 June 1989 a Directive on Emissions standards for small cars - that is those under 1,400cc. This Directive will set tight standards for petrol and diesel-engined cars, covering both particulate and gaseous emissions. The Government played a leading role in reaching this agreement which will both produce substantial environmental benefits and give the motor industry a clear framework for planning its future car production. A consolidated directive imposing similar standards for other car sizes will follow shortly.

The control of air pollution and policy on motor transport are the responsibilities of the Department of Transport and the Department of the Environment. You may find it helpful to write to those Departments if you want further information.

I am sorry that I cannot be of more help.

Yours sincerely




Room 658C Skipton House 80 London Road London SE1 6LW Telephone 071 972 2000
Direct line 071 972 5118
Fax: 071 972 5167

4 March 1994

Dear *Professor*,

[REDACTED] of the Society of Motor Manufacturers and Traders Ltd has passed me your letter regarding the health risks due to diesel soot. You refer, I think, to the second report of the Quality of Urban Air Review Group: "Diesel Vehicle Emissions and Urban Air Quality. I was largely responsible for the comments in that report on the health effects of particulates.

You comment that the statement (correct version given below) -

"In the view of the Review Group, the impact of diesel vehicles on urban air quality is a serious one. Any increase in the proportion of diesel vehicles on our urban streets is to be viewed with considerable concern unless problems of particulate matter and nitrogen oxides are effectively addressed."

is based on the results of already obsolete studies.

You also point out that animal studies have indicated that ambient levels of diesel emissions are likely to present little threat to health.

I was aware of this work.

The studies which have impressed me, rather more than the rodent studies, have been those published by Schwartz, Dockery and Pope. These deal with the relationship between general levels of particulate aerosols and mortality and measures of morbidity. There can be no doubt that diesel emissions contribute to the background levels of airborne particles in urban air. Given that we are concerned that exposure to low levels, or rather changes in already low levels, of airborne particles (as measured by PM_{10} and



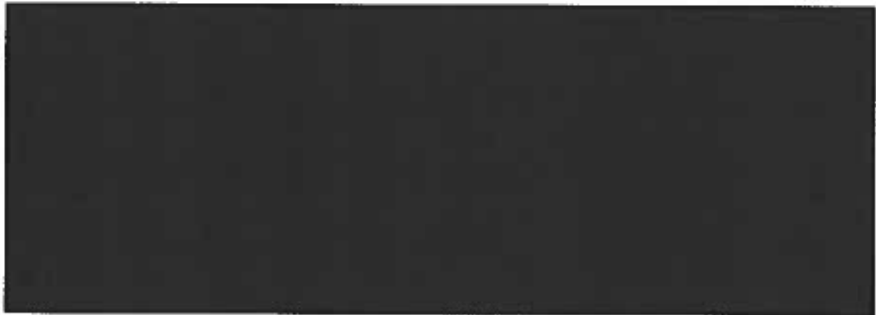
other means) may be associated with damage to health then I fail to see how anyone could take a complacent view of possible increases in diesel emissions.

Yours sincerely

A handwritten signature in cursive script, appearing to read "R. L. Maynard", is positioned above the typed name.

R L MAYNARD
Senior Medical Officer

Copy:





Skipton House 80 London Road London SE1 6LW Telephone 071 972 2000
Direct line 071 972 5318

Chairman and Members of COMEAP

25 August 1994

FAX: 071 972 5167

Dear Member

COMEAP MEETING - JUNE 1994

At the last meeting of COMEAP a draft statement on diesel emissions was discussed. In the light of that discussion the second sentence of the draft was deleted. The statement now reads:

In view of the contribution made by diesel emissions to urban levels of airborne particles and recent evidence regarding the health effects of exposure to low levels of particles, COMEAP consider that there is no case for recommending diesel engined motor cars in preference to petrol engined motor cars on health grounds.

Please send me any comments you have on the amended text by fax before Friday 9 September. The statement will then be regarded as agreed.

Thankyou

Yours sincerely

Scientific Secretary, COMEAP

[Redacted] - please action
Please could you ensure that this goes out to the Chairman & Members of COMEAP as soon as possible.

[Redacted]
Rec'd on 6/9/94 @ 10.00 hrs
[Redacted]



THE DEPARTMENT
OF TRANSPORT

[REDACTED]
2 MARSHAM STREET LONDON SW1P 3EB

FAX 071-276 0818
TELEX 22221 DOEMAR-G
DIRECT LINE 071-276
SWITCHBOARD 071-276 3000
GTN 276
VSE FAX 071-276 6419
Telephone 071-276 6412

My Ref: VSE 780/96

Your Ref:

5 November 1990

Dear Colleague

**MVP(90) 2nd MEETING
DRAFT MINUTES**

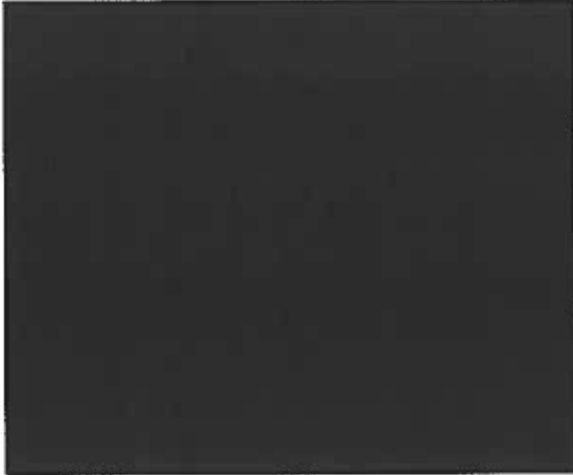
Draft minutes of the meeting held on 28 September are attached.
If you wish to offer any comments or propose amendments, please
let me know by 19 November.

[REDACTED]
Vehicle Standards and Engineering

MVP(90) 2nd MEETING

MINUTES OF MEETING OF INTERDEPARTMENTAL COMMITTEE ON MOTOR
VEHICLE POLLUTION - 28 SEPTEMBER 1990

Those present:-

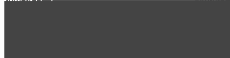


DTP/VSE
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DTP/TRRL
DOE/AQ
DOE/AQ
DOE/EPSE
DTI/VTF
DTI/WSL
DEn/OG
DH/Med/TEH
DH/Med/TEH
DTP/VSE

Consolidated Directive on car emissions

Fiscal incentives

Papers MVP(90)6 and MVP(90)7

1.  opened the discussion on paper MVP(90)6. Negotiations on the consolidated Directive were not proceeding as smoothly as had originally been hoped. The European Parliament had voted to support significant changes in favour of more stringent standards, most of which the Commission were minded to reject. However, the Parliament's actions had emboldened some of the "greener" Member States to press for stricter proposals to be adopted. The Commission's revised proposal was expected to be discussed at the next Environment Council at the end of October. A simple majority in favour of the Commission position was likely at this stage, but a blocking minority in favour of stricter limits would almost certainly be assembled. The result would probably be a delay in the adoption of the Directive, which would make it difficult, if not impossible, to introduce the new limits by the due dates. This would

lead in turn to problems in meeting the air quality standards envisaged by the NOx Protocol and the NO₂ Directive.

2. There was a need therefore to address the question of fiscal incentives. There were two aspects to this. Incentives might be used first to encourage uptake of cars meeting the current Directives before the mandatory introduction dates. They might also encourage the purchase and use of cars meeting a tighter standard either when the consolidated Directive is agreed or if it falls. It would be possible legally to offer incentives only within existing EC standards, but other Member States had already succeeded in outfacing the Commission by playing for time and allowing the European Court to decide the legality of their actions after the event.
3. [REDACTED] tabled paper MVP(90)7, of which a copy is attached to these minutes. The paper set out current levels of pollutants from all sources and sought to show how the Consolidated Directive might affect the achievement of environmental objectives in the 1990s. So far as NOx was concerned, there were two main focuses. The declared national objective under the NOx Protocol was to reduce NOx emissions to 1987 levels by 1994. Under the NO₂ Directive, European Community standards had to be met at selected monitoring sites. The location of these sites was to be reviewed so that more realistic monitoring could be achieved.
4. A great deal had already been done on reducing NOx emissions from industrial sources. The principal source which could influence the overall picture in a significant way was now the motor vehicle. Even if the consolidated Directive was introduced on time, with much stricter standards for medium vehicles, the

highest traffic growth assumption would lead to the UK exceeding the target agreed in the NOx Protocol by some 70 kTonnes (about 3%). On the central growth scenario, the most likely in [REDACTED] view, the excess would be about 14 kTonnes (less than 1%). Although this was within the accepted margin of error, it left very little room for manoeuvre. If the consolidated Directive was not agreed in time to take effect by the end of 1992, the medium car standard in Directive 88/76/EEC would mean that the NOx target was most unlikely to be met in 1994. It was therefore essential for the consolidated Directive to be agreed without delay.

5. The paper showed how it may be possible for the UK to accept to some extent the Vittinghof amendments, including the second stage in 1995. The table comparing the performance of various passenger cars showed that it was possible to meet the 1995 limits proposed by the European Parliament for each pollutant. The UK should therefore consider as part of its tactics a willingness to concede some or all of these limits.
6. In discussion on the consolidated Directive, the following points were made.
 - a. The main aim of UK policy should be to secure an early agreement. The industry in the UK would suffer from a long period of uncertainty.
 - b. Tighter standards, especially for medium cars, would have a large effect on NO₂ over the next ten years.
 - c. There were two areas where the UK held a reserve against the Commission's proposal. These were the

omission of Annex IIIA, and the mandatory nature of the proposal without any exemption in favour of small scale and home build producers.

- d. On Annex IIIA, the UK might expect to find allies in the "green" camp, but this point was unlikely to yield any influence against a blocking minority in favour of tighter limits. The reinstatement of Annex IIIA was crucial to the interests of some British manufacturers with a large export market in the USA.
 - e. It might be necessary to concede the point on small producers.
 - f. The table of comparisons of car performance attached to MVP(90)7 ought to be regarded with caution. It was not a reliable indicator that the Vittinghof 1995 proposals were feasible. The cars were in some cases "specials" built for the exercise. The results did not show that the limits were feasible even for these vehicles. Only one of the vehicles with conventional three way catalyst and closed loop technology passed the test to the Parliament's 1995 standard. That was the smallest one.
7. The Chairman, summing up the discussion, said that supporting the Commission proposal in the first instance was a position of neutrality, but that in discussion the UK should neither support nor oppose too vociferously those Member States who wanted to support a position on the lines of the Vittinghof amendments. It would be best to wait until the December Council and watch how the attitudes of the less "green" Member States developed. This should leave the UK in a position to claim not to have

prevented agreement. The reinstatement of Annex IIIA was important; perhaps more so than actual limit values.

8. The meeting noted the Chairman's summary with approval.
9. On fiscal incentives, the following points were made in discussion.
 - a. If an incentive were offered in the next Budget for motorists to purchase cars approved to existing limits in 88/76/EEC and 89/458/EEC, it would only have an effect for 21 months at the most.
 - b. If HM Treasury were asked to provide £300 per new vehicle over 18 months, that would make a total of £1 billion.
 - c. If there were a steeply graded special car tax based on fuel efficiency, an emissions incentive would cloud the issue. HM Treasury would almost certainly seek to play the two incentives off against one another and neutralise both, or drop the whole project.
 - d. If the consolidated Directive falls, the need to meet environmental objectives would remain. Almost anything that would be effective would be illegal in a Community context.
10. The Chairman, summing up the discussion, concluded that the points could be put to Ministers in a general way. It was important, however, not to allow the question of fiscal incentives to encourage the purchase of cars meeting lower emission standards than

the mandatory ones to obscure the long term need to encourage people to fuel efficient vehicles.

11. The meeting noted the Chairman's summary with approval.

Duty differentials - unleaded petrol and diesel

12. There was a discussion on fuel duty differentials. The Commission had proposed an increase of 20p in the price differential in favour of diesel. The following points were made.
 - a. The growth in unleaded petrol sales was now slow, having settled at about 1% per month.
 - b. Those who were willing to convert voluntarily to unleaded had probably already done so. Nevertheless, many people who could use unleaded were still using leaded.
 - c. There was little environmental case for further increases in the duty differential in favour of unleaded petrol. It had done its job, and new cars from now on will have to be able to use unleaded. The present level of differential should ensure that the users of these vehicles will largely choose unleaded.
 - d. An argument was advanced in favour of a differential to encourage the greater uptake of diesel fuel. It had advantages over both types of petrol in terms of fuel economy and therefore gave rise to lower emissions of CO₂.
 - e. There was a balance between diesel and petrol not only in terms of the current duty differential,

but also in refining terms. Any sudden increase in the demand for diesel would cause short term difficulties in the refining industry.

13. The Chairman, summing up, concluded that there was very little sympathy in the meeting for a change in differentials. The uptake of unleaded could be expected to increase as more new cars are designed to use it, and as catalyst cars which must use it come on to the market. Similarly, there was a good balance between diesel and petrol, which might shift gradually towards diesel, especially in the case of light commercial vehicles.
14. The meeting noted the Chairman's summary with approval.