

REPORT OF THE

UNEP/OECD MEETING ON LEAD IN GASOLINE

12-13 DECEMBER, 1996 (Paris)¹

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UNEP/OECD Meeting on Lead in Gasoline (12-13 December, 1996; Paris)

Highlights of the Meeting

1. Mme. Jacqueline Aloisi de Larderel (UNEP Industry and Environment Office) and Mr. Rob Visser (OECD Environment Directorate) opened the meeting. The meeting was organised jointly by UNEP and the OECD in response to recent decisions or policy declarations issued by the two organisations to further reduce the risk posed by emissions from lead in gasoline. Experts from key international organisations were invited to (1) discuss the issues associated with removing lead from gasoline and ways their organisations could work together, and (2) develop a list of activities that will or could be carried forward. (A list of participants is attached as Annex 4.)
2. The highlights of the meeting and material prepared by various experts before the meeting, will be made available to the public on a joint OECD/UNEP World-Wide-Web home page. The results of the meeting will also be reported to the UNEP Governing Council and the OECD Joint Meeting of the Chemicals Group and Management Committee.
3. In order to provide a foundation from which to build a list of possible areas of co-operation, it was agreed that each expert would provide an oral report of their relevant planned or on-going activities concerning lead in gasoline. Michael Walsh opened this session by making a general presentation on the world-wide efforts to remove lead from gasoline. Following this, each participant, in turn, provided a summary of their activities in this area².
4. In the course of this discussion, the participants identified possible opportunities for mutual co-operation. The Group further refined this inventory until it had developed a list of projects that will or could be initiated (i.e., for some projects, at least one organisation volunteered to take the lead in carrying out the task). Completion dates were proposed for some of the projects. (The final list is attached as Annex 1.) Draft Terms of Reference for two of the projects are included as Annex 2 and 3.
5. At the conclusion of the meeting, UNEP submitted a draft a press release summarising key aspects of the discussions that it would issue. (The press release is attached as Annex 5.)
6. Participants to the meeting expressed their satisfaction with the useful exchange of information and points of views between industry, international government associations and non-governmental organisations. They felt that it opened the way to future partnerships and co-operation.

² Background papers prepared by participants to describe their activities and distributed before or at the meeting included: Reducing Lead in Gasoline (European Automobile Manufacturers Association); The Need for and Benefit of Removing Lead from Gasoline (Michale P. Walsh); OECD Risk Management Activities with Respect to Lead in Gasoline (OECD Secretariat); The World Bank's Approach to Removing Lead from Gasoline (World Bank); Why Lead Should be Removed from Gasoline (World Bank); Press Release--World Bank Recommends Global Phase-out of Leaded Gasoline (World Bank); Phasing out Lead from Gasoline: World-Wide Experience and Policy Implications (World Bank); Activities of the International Lead Industry Relating to Lead in Gasoline (Lead Development Association International); Activities of the International Lead Management Center Pertaining to Lead in Gasoline (ILMC); NRDC Activities on the Global Phaseout of Leaded Gasoline (NRDC); Resolutions of the Council of Ministers of Transport and Reports Approved in 1998 (ECMT); Environmental Action Programme--Note on Progress of Sofia Initiatives (OECD Secretariat);

Annex 1

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Projects to be Implemented

1. Develop an issue paper on older gasoline-fuelled vehicles in developing countries. Such a paper would identify and assess the policy options for addressing these vehicles. It would consider, inter alia:

- impact on valve seats due to removal of lead (from field studies)
- import/export (i.e., developed countries “dumping” older vehicle fleets in developing countries)
- broader air pollution issues
- links to maintenance/training needs

A draft terms of reference is included in **Annex 2**.

2. Develop an issue paper on the experience with different policy approaches to address lead use in gasoline in different countries.

A draft terms of reference is included in **Annex 3**.

3. Present the conclusions of this meeting to OECD’s European Conference of Ministers of Transport (ECMT).

4. UNECE will feed the results of its Task Force work to the ECMT.

5. IPIECA will assess the incremental cost of lead removal as part of refinery modernisation costs by mid-1997; if possible by April 1997.

6. IPIECA will feed the results of the meeting to the workshop it is holding in Malaysia from April 21-23, 1997.

7. ACEA confirms that, world-wide, all of its member companies’ manufacturing plants have the ability to make automobiles compatible with unleaded gasoline. ACEA requests that similar commitments (i.e., encouraging the use of unleaded gasoline), be made on the part of oil producers.

8. On behalf of the European car manufacturers, ACEA will collect/synthesise data concerning type of valve seats by auto make/model/vintage, by the end of March, 1997. UNEP/OECD Secretariat will request US/Japanese manufacturers, in January 1997, to provide the same information. Octel will provide this information for the UK.

9. Octel/NRDC will work together on a comparative risk assessment (lead vs. lead free gas). Octel and NRDC will meet in January and will report on progress by June 97.

10. The Workshop encourages efforts in general, and the efforts of UNIDO in particular, to develop decision-making tools and expert systems that can help to better address problems arising from the use of lead in gasoline.

11. UNECE will solicit technical presentations for its regional workshop on lead in gasoline in the CEITs. This workshop will be held prior to the Ministerial Conference in June 1998.

12. There is a need for an annotated bibliography of key documents relating to the use of lead in gasoline. ILMC offers to act as a clearing-house on materials relating to this subject.

**TERMS OF REFERENCE FOR POSSIBLE PAPER:
OLDER GASOLINE FUELLED VEHICLES IN DEVELOPING COUNTRIES - THEIR
IMPORTANCE AND THE POLICY OPTIONS FOR ADDRESSING THEM**

Many developing countries have a disproportional share of older vehicles. Because they frequently contain no pollution controls whatsoever and are poorly maintained these vehicles are usually a significant source of CO, HC, NO_x particulate and lead and often waste large amounts of fuel. In addition, because they were built before lead free gasoline was commonly used, they are often perceived to be an impediment to the complete conversion to lead free fuel for fear that their valve seats would be damaged. The purpose of this paper is to address these vehicles in a focused manner. Specifically, it will:

1. attempt to quantify their contributions based on specific case studies to vehicular emissions of CO, HC, NO_x, PM + lead as well as fuel consumption and CO₂;
2. determine the risks that would be posed to these vehicles by the exclusive use of lead free fuel, considering both their design and manufacture as well as their usage characteristics.

In addition, it will assess policy options for addressing the problem associated with these vehicles. Policy issues to be addressed include:

3. what benefits could result from a good inspection and maintenance programme for these vehicles and at what cost?
4. what are the training needs for mechanics to properly repair their vehicles?
5. are spare parts readily available for these vehicles and, if not, how can this be addressed?
6. for those vehicles at risk of valve seat recession with use of unleaded fuel, what options are available to address the problem?
 - a) valve seat inserts
 - b) substitute additives
 - c) alternative fuelling, i.e., alternating between the use of leaded and lead free gasoline.--as a corollary, it will determine what levels of lead are necessary to prevent the problem.
7. What has been the experience with voluntary "scrappage" incentive programmes?
8. how much of the older vehicle problem is caused by export of used vehicles or engines from developed countries and what are the options to address this?
 - a) by the exporting country
 - b) by the importing country
9. How feasible and cost-effective is it to retrofit these vehicles with emission control devices or systems? This will be presented as a function of differing standards or levels of control.
10. The influence of taxation policies will also be discussed.

Examples used will to the extent possible reflect different regions of the world

Estimated Total Cost = 40 man-days ≈ \$20,000

**TERMS OF REFERENCE FOR POSSIBLE PAPER:
PHASING LEAD OUT OF GASOLINE - THE EXPERIENCE WITH DIFFERENT POLICY
APPROACHES IN DIFFERENT COUNTRIES**

Over the course of the past twenty five years, leaded gasoline has been phased out in a wide variety of countries. Different countries have relied on a variety of policy instruments to do this ranging from traditional “command and control” to economic instruments. In some countries, the responsibility was placed with vehicle manufacturers as well as vehicle users in addition to fuel producers and distributors. Further, some countries moved very rapidly to eliminate leaded gasoline once they decided to do so, whereas other countries took many years. This paper will identify the variety of policy instruments which have been used by various countries around the world and using specific case studies assess their advantages and disadvantages. Further it will assess the pros and cons of the “fast track” versus the “slow track”, again looking at specific examples to determine what issues have been learned. It will consider the risk of contamination as one important factor.

Where possible, it will attempt to provide examples from different regions and to account for other differences such as a single dominant oil or auto company versus a free and open market.

The primary audience for both papers is government policy makers without special expertise in these areas. It will not be an advocacy piece but rather attempt to provide these decision makers with an objective overview of the issues and experiences in other countries which have wrestled with some of the same questions.

Estimated Total Cost = 30 man-days \cong \$15,000

UNEP/OECD CONSULTATIVE MEETING ON REDUCING LEAD IN GASOLINE
(Paris, 12th-13th December 1996)

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