Updated Response to the EU Auto Oil Proposals

By Frazer Goodwin

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1. Background and Introduction.

The attempts to control traffic pollution at a European level have over the past 25 years focused on technical standards for new vehicles. The latest revision of these standards have reached the second stage of the adoption process which translates proposals of the Commission into Directives of the European Union. These proposals mark, however, a new approach in this area of European policy. They are based on a comprehensive assessment of both the extent of the environmental requirement for action, and the least cost solutions to achieve the targeted environmental objectives: the Auto Oil Programme. The result was a Communication from the Commission outlining a future strategy to control traffic emissions, accompanied by a proposal revising passenger emission standards and, for the first time, a proposal stipulating the minimum standards for petrol and diesel fuels.

Both of the key institutions guiding the adoption process, the Council and the Parliament, have given their first reasoned opinions on these proposals. The first six months of 1998 will now see to what extent Europe’s decision makers are prepared to meet the environmental objectives identified by the Auto Oil programme.

Despite the fact that the Auto Oil Programme set out to achieve rational and objective environmental goals, it is still the case that the proposals presented by the Commission fall short of complete protection for Europe’s health and environment. There are many reasons for this shortfall\(^1\), and both the Parliament and the Council addressed this by increasing the stringency of the measures in the first stage of the adoption procedure.

The purpose of this short paper is to highlight the problems T&E perceive with the process thus far, as well as to propose the changes to the two proposals which are necessary to strengthen them to a level consistent with the stated policy objective of the protection of human health and the environment via a rational approach.

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\(^1\) This is the case for the following reasons:

- Some pollutants have no safe level of exposure and so reductions proposed originally will always carry a level of risk, it is a political rather than an a rational decision over whether this level of risk is acceptable, or whether a higher level be adopted.
- Other pollutants for which a “safe” level can be determined were only modelled in the Auto Oil Programme at a very large scale of resolution.
- Protecting human health will depend upon reducing exposure levels in areas of high pollution - zones that were not part of the objectives of the Auto Oil Programme.
- Regional pollution of the environment by acidification and tropospheric ozone will also require further reductions than were targeted in the Auto Oil Programme particularly if the agreed long term goal of no exceedance of critical loads or levels is to be attained in combating acidification.
2. The Process thus Far

The Auto Oil Programme was, up to 1997, a collaboration between the European Commission and the Oil and Car manufacturing industries. The proposals presented by the Commission in addition to mandating standards for 2000, included an Article reviewing the standards applicable in the year 2005. This Article effectively launched the “Auto Oil II Programme” ; a programme that included not just the original three partners, but also other relevant industries, local authorities, Member State and NGO experts, as well as staff from the European Environment Agency.

Such a revision of the programme is likely to ensure that the weaknesses of the first Auto Oil Programme are addressed. These weaknesses (additional to the lack of transparency that has now been corrected), included :

- exclusive analysis of urban air quality at the at the background level over a 2km grid of a city, rather than analysis of the exposure levels typically experienced in European urban environments;
- no analysis of the relative share that sources other than traffic should contribute in terms of emission reductions to maintain an overall cost effective package of measures;
- assumptions on the emission cuts to be delivered by tighter annual inspection tests based on very scant knowledge now known to be too optimistic;
- minimal standards of air quality set for the regional level pollution problem of ground level ozone in comparison to the more realistic and stringent levels utilised for the “urban” pollutants;
- no linkage with the Community strategy to reduce CO2 emissions from passenger cars;

The inclusion in the analysis of Auto Oil II of more realistic basic assumptions, particularly those relating to the exposure of pollution in all types of urban locations, will result in more demanding environmental targets being set in Auto Oil II than was previously the case. In addition there will be lowered expectations of the measure found to be the most cost effective in the first programme, annual inspection tests following increased understanding of their actual performance.

The work of Auto Oil II should thereby see further progress towards a comprehensive assessment of the extent to which the air pollution our economy and transport system produces has negative impacts on our health and environment. Auto Oil I marked a watershed in the development of policy to control pollution from traffic, in that an environmental target was the goal of the policy process. Auto Oil II should improve on this approach by ensuring that, rather than merely improved aggregate background air quality, the focus is switched towards a reduction in exposure to pollution as the policy goal.

If the policy goals of true health and environmental protection are to be achieved, therefore, the standards we have advocated will serve as a minimum. The protection of health requires that policy makers adopt a cautious and prudent approach. European policy makers have demonstrated that they are not afraid to invoke such a precautionary approach when dealing with other health risks, notably BSE (mad cow disease). The Auto Oil II programme currently underway will continue to be required, however, as at this stage it is unclear to what extent technical standards will need to be advanced to ENSURE health and environmental protection beyond those advocated as a minimum here.
3. The Adoption Process

The points to emerge as contentious at the end of 1997 half way through the adoption process are:

- whether 2005 standards for fuel and for vehicle emission standards should be indicative or mandatory at this stage;
- the length of a possible derogation, and to which parameters it would apply, for the fuel standards for states which would suffer “severe socio economic difficulties”;
- the stringency of the emission standards for cars and the fuel quality standards.

For the final point T&E retains the position that was drafted in our original response to the Auto Oil proposals. Nothing has altered in the intervening time that would persuade us that the standards we advocated were either not necessary or were unachievable. Indeed a study published by the Swedish and Finnish governments concerning the costs of obtaining higher quality low sulphur fuels clearly indicated that final costs would be considerably lower - up to 55% lower - than estimated in the Auto Oil Programme by the same consultants.

As far as the question of the necessity of mandating 2005 standards now is concerned T&E has an ambivalent position. It is true that we know now that the standards proposed for 2005 will AT THE VERY LEAST be needed for Europe’s health, environment and its industrial competitiveness. Nevertheless a thorough reassessment of the need to go further than these standards, as currently underway in the Auto Oil II Programme, is still a rational course of action. Thus the review clauses in the two proposals are thought to be useful additions to the Directives, and T&E does not object to these Articles per se. They should, however, be amended to reflect the need for review whilst committing the union to take effective action now.

The issue that has emerged during the adoption process which was not previously an issue is the question of derogations from the fuel quality Directive. The countries which are the seat of the political pressure for such a derogation are precisely the countries with the greatest air pollution problems. Allowing those countries that need to do the most in order to protect public health and the environment, to not only do the least, but to do nothing for a period, runs counter to the principle of cohesive development across the Union as well as the polluter pays principle. T&E therefore opposes the inclusion of these derogations in the Directive.
4. KEY RECOMMENDATIONS

The following summarises the T&E position on the details of the standards that need to be adopted now.

Diesel Fuel Quality in 2000
The Sulphur Content should be at most 50 ppm, otherwise the directive will be far too lax. Details of all the parameters for diesel fuel proposed by T&E, and their associated costs to the motorists, are given in table 1. There should be no possibility for national derogations to these standards.

Petrol Fuel Quality in 2000
The Sulphur Content should also be 50 ppm at most. Details of all the parameters for petrol fuel proposed by T&E, and their associated costs to the motorists, are given in table 2. There should be no possibility for national derogations to these standards.

Diesel Car Emission Standards in 2000
The NOx should be 0.4g/km. Details of the emission standards for all the pollutants from diesel cars proposed by T&E, and their associated costs to the motorists, are given in table 3.

Petrol Car Emission Standards in 2000
Details of the emission standards for all the pollutants from petrol cars proposed by T&E, and their associated costs to the motorists, are given in table 4.

Cold Start
A cold start test procedure (at -7°C) should continue to be included in the Directive.

Durability
The durability of emission control equipment should be extended to 160,000km.

On Board Diagnostics (OBD)
The OBD proposals should extended to include diesel vehicles. The arguments previously presented by the industry that this was not technologically feasible are weakened by the inclusion by some manufacturers of OBD as an optional extra on some of their diesel model range. There also needs to be complete access to the repair of such systems unequivocally written into the Directive.

Recall and a Conformity of Vehicles in Circulation procedure (CVC)
A Conformity of Vehicles in Circulation (CVC) procedure should be included in the Directive. Much has been made by industry of the supposed duplication such a policy would create. This line of argument, however, completely ignores the fact that other checks on the in-service emissions performance of vehicles address very different issues. It is necessary to retain all the elements of an overall strategy if in-service emissions are to be effectively controlled. OBD, annual inspection tests, conformity of production tests, and CVC tests are all required as they are complementary rather than substitute measures.

Fiscal Incentives
The freedom for Member States to use fiscal incentives for the early introduction of both cleaner fuels and cars must be unequivocally contained within the Directives.
2005 Standards
As previously outlined above the fuel quality and passenger car emission standards for 2005 should be
mandatory in the current Directive, with the Auto Oil II programme focusing on the need to go
further. The standards included in the tables 3 and 4 below include full vehicle standards for 2005. For
fuels the key parameter will continue to be sulphur which should fall as a maximum to 30ppm in both
petrol and diesel.

**Table 1. Advocated Diesel Fuel Parameters and Associated Costs.**

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Unit</th>
<th><strong>Advocated Minimum or Maximum Specification</strong></th>
<th>Predicted resultant market average</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cetane Number</td>
<td>WT ppm</td>
<td>Min. 56</td>
<td>58</td>
</tr>
<tr>
<td>Density</td>
<td>kPa</td>
<td>Max. 835</td>
<td>825</td>
</tr>
<tr>
<td>Poly-aromatics</td>
<td>Vol. %</td>
<td>Max. 1.5</td>
<td>1</td>
</tr>
<tr>
<td>T95 °C</td>
<td></td>
<td>Max. 350</td>
<td>340</td>
</tr>
<tr>
<td>Sulphur</td>
<td>WT %</td>
<td>Max. 50</td>
<td>30</td>
</tr>
</tbody>
</table>

**Costs to the motorists when all charges are passed on:**
0.011274 ECU per litre price increase
or
10.09 ECU per year for the average motorist.

**Table 2. Advocated Petrol Fuel Parameters and Associated Costs.**

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Unit</th>
<th><strong>Advocated Minimum or Maximum Specification</strong></th>
<th>Predicted resultant market average</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sulphur</td>
<td>WT ppm</td>
<td>Max. 50</td>
<td>30</td>
</tr>
<tr>
<td>RVP</td>
<td>kPa</td>
<td>Max. 60</td>
<td>58</td>
</tr>
<tr>
<td>Aromatics</td>
<td>Vol. %</td>
<td>Max. 35</td>
<td>37</td>
</tr>
<tr>
<td>Benzene</td>
<td>Vol. %</td>
<td>Max. 1</td>
<td>0.8</td>
</tr>
<tr>
<td>Oxygen</td>
<td>WT %</td>
<td>Max. 2.3</td>
<td>1</td>
</tr>
<tr>
<td>Olefins</td>
<td>Vol. %</td>
<td>Max. 15</td>
<td>9</td>
</tr>
<tr>
<td>E.100</td>
<td>%</td>
<td>Min. 47</td>
<td>55</td>
</tr>
<tr>
<td>E.150</td>
<td>%</td>
<td>Min. 76</td>
<td>85</td>
</tr>
</tbody>
</table>

**Costs to the motorists when all charges are passed on:**
0.0069851 ECU per litre price increase
or
7.13 ECU per year for the average motorist.

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2 Calculation is based upon cost given for the production of the fuel package “petrol I and diesel IV in the
Auto Oil Report along with the additional cost of reducing the benzene content in petrol in accordance with
the data in the Cost effectiveness study completed by Touche Ross presented at the MVEG.

3 Assuming an average annual distance travelled of 12,600 km with a fuel economy of 7.61 litre per 100 km
for diesel motorists and 8.61 litre per 100 km for petrol motorists.
Table 3
Advocated Diesel Passenger Car Emission Standards

<table>
<thead>
<tr>
<th>Pollutant</th>
<th>Advocated standards in g/km</th>
</tr>
</thead>
<tbody>
<tr>
<td>NOx</td>
<td>0.4</td>
</tr>
<tr>
<td></td>
<td>0.19</td>
</tr>
<tr>
<td>HC</td>
<td>0.07</td>
</tr>
<tr>
<td></td>
<td>0.07</td>
</tr>
<tr>
<td>CO</td>
<td>0.64</td>
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<tr>
<td></td>
<td>0.64</td>
</tr>
<tr>
<td>PM</td>
<td>0.03</td>
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<td></td>
<td>0.024</td>
</tr>
</tbody>
</table>

Average additional cost of new vehicle before taxation would be: 333.25 ECU
This is 57.8 ECU more than the current proposal which equates to a cost of 275.45 ECU per vehicle.

Table 4
Advocated Petrol Passenger Car Emission Standards

<table>
<thead>
<tr>
<th>Pollutant</th>
<th>Advocated standards in g/km</th>
</tr>
</thead>
<tbody>
<tr>
<td>NOx</td>
<td>0.09</td>
</tr>
<tr>
<td></td>
<td>0.075</td>
</tr>
<tr>
<td>HC</td>
<td>0.12</td>
</tr>
<tr>
<td></td>
<td>0.1</td>
</tr>
<tr>
<td>CO</td>
<td>1.49</td>
</tr>
<tr>
<td></td>
<td>0.8</td>
</tr>
</tbody>
</table>

Average additional cost of new vehicle before taxation would be: 277.87 ECU
This is 141.57 ECU more than the current proposal which equates to a cost of 136.3 ECU per vehicle.
Air pollution from road transport has continued to increase in Europe despite emission standards for new cars increasing in severity by up to 90% compared to 1970. Proposals based on the Auto Oil Programme (a collaboration between the Commission and the oil and car industries) to address this problem were adopted by the Commission on 18th June 1996. These proposals have reached (at the end of 1997) the half way stage of the adoption process for European Union Directives in the Council and the European parliament.

This paper is an update of the response to the proposals T&E made at the time of their adoption by the Commission (T&E 96/13). It details the background to the original proposals and their progress thus far. An outline is then given reviewing what the Council and the European Parliament should do in order to fulfil the goal which underpins the new approach taken in this policy area: the goal of protecting human health and the environment.

About T&E

The European Federation for Transport and Environment (T&E) is Europe's primary non-governmental organisation campaigning on a Europe-wide level for an environmentally responsible approach to transport. The Federation was founded in 1989 as a European umbrella for organisations working in this field. At present T&E has 29 member organisations covering 19 countries. The members are mostly national organisations, including public transport users' groups, environmental organisations and the European environmental transport associations (Verkehrsclubs). These organisations in all have several million individual members. Several transnational organisations are associated members.

T&E closely monitors developments in European transport policy and submits responses on all major papers and proposals from the European Commission. T&E frequently publishes reports on important issues in the field of transport and the environment, and also carries out research projects.

The list of T&E publications in the annex provides a picture of recent T&E activities.

T&E member organisations

Aksjon Naermiljo og Traffikk (Norway)
Associació per la Promoció del Transport Públic (Spain)
Associación Ecologista de Defensa de la Naturaleza (Spain)
Cesky a Slovensky Dopravní Klub (Czech and Slovak Republics)
Danmarks Nat urfredningsforening (Denmark)
Environmental Transport Association (UK)
Fédération Nationale des Associations d'Usagers de Transports (France)
Gröna Bilister (Sweden)
Groupement des Usagers des Transports Intercommunaux Bruxellois (Belgium)
Komitee Milieu en Mobiliteit (Belgium)
Legambiente (Italy)
Liikenneliitto (Finland)
Magyar Közlekedést Klub (Hungary)
Norges Naturvernforbund (Norway)
P.K.E. - Polish Ecological Club (Poland)
Pro Bahn (Germany)
Quercus (Portugal)
Society for Nature Protection and Eco-development (Greece)
Stichting Natuur en Milieu (Netherlands)
Svenska Naturskyddsföreningen (Sweden)
Transport 2000 (United Kingdom)
Verkehrsc lub Deutschland (Germany)
Verkehrsc lub Österreich (Austria)
Verkehrsc lub der Schweiz (VCS/ATE/ATA) (Switzerland)
Wijs op Weg (Netherlands)

Associate members

Alp-Initiative
Community of European Railways
European Cyclists' Federation
International Union for Public Transport
Worldwide Fund for Nature