COMMISSION OF THE EUROPEAN COMMUNITIES

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COMMUNICATION FROM THE COMMISSION TO THE COUNCIL AND THE EUROPEAN PARLIAMENT

Implementing the Community Strategy to reduce CO_2 Emissions from cars: Outcome of the negotiations with the Japanese and Korean automobile industries

I. Introduction

Environmental agreements with the automotive industry are an important element of the Community's strategy to reduce CO_2 emissions from passenger cars and improve fuel economy (COM(95) 689 final). The Council endorsed the strategy's overall approach and indicated that agreements should seek to commit the industry "to make the major contribution" to the Council's objective of an average CO_2 emission figure for new passenger cars of 120 gCO_2/km by 2005, and 2010 at the latest (Council conclusions of 25.6.1996).

After having concluded an Agreement with the European automobile industry (*European Automobile Manufacturers' Association* - ACEA, COM (98) 495 final), the Commission started negotiations with the Japanese and Korean automobile industries with the objective of concluding equivalent agreements.

The Council followed these negotiations closely and expressed on several occasions its concern about the insufficient progress. The Commission informed the Council in June 1999 about the considerable progress made. The Council concluded that the Commission should present to the Council for its October meeting a report evaluating the outcome of the negotiations.

II. Outcome of the negotiations

As a part of the outcome of these negotiations with industry the Commission intends shortly to conclude agreements with the Japanese automobile industry (*Japan Automobile Manufacturers' Association - JAMA*) and the Korean automobile industry (*Korean Automobile Manufacturers' Association* - KAMA), hereinafter called 'the *Agreements'*, based on *Commitments* already received.

II.1 The terms of the *Commitments*: The Commission's assessment

II.1.1 General terms

The *Commitments* from JAMA and KAMA are mirror images of the agreement already in place with ACEA. Therefore the detailed assessment given by the Commission with respect to the ACEA agreement is also valid with regard to these *Commitments*, see COM (98) 495 final. This holds in particular for the following items:

- The *Commitments* correspond to the Council's expectations and the Commission's own original objectives (COM(95) 689 final).

- They take account of the general criteria for environmental agreements contained in the Commission Communication on Environmental Agreements (COM(96) 561 final).

More specifically the *Commitments* are either identical or equivalent to the ACEA agreement with regard to the following features:

1. The CO_2 emission objective: The *Commitments* contain the same quantified CO_2 emission objective for the average of new passenger cars sold in the European Union,

i.e. 140 gCO_2/km [to be achieved by 2009], measured according to the Community's current measurement procedure (Directive 93/116/EC). The scope of the *Commitments* is passenger cars of category M1 as defined in Directive 70/156/EEC, although innovative vehicle concepts and cars using alternative fuels or radically new propulsion systems will equally be counted towards the CO_2 objective (see the assumption concerning the acceptance of innovations in the *Commitments*).

2. Means of achievement: As in the case of the ACEA agreement, JAMA and KAMA commit themselves to achieving its CO_2 target 'mainly' by technological developments and related market changes which leaves scope for further market changes being induced by the other instruments of the Community's strategy

3. Assumptions: JAMA's and KAMA's *Commitments* contain in essence the same assumptions as ACEA's. The assumptions reflect the fact that the automotive industry's ability to attain its CO_2 objective may be affected by developments outside its control, reflecting technical and economic constraints, and they are therefore justifiable. The Commission has no reason to believe that the assumptions will not be borne out, and therefore it should not be necessary to review the *Agreements* at any stage.

4. Intermediate objectives: The *Commitments* of JAMA and KAMA contain two intermediate objectives:

Association/Intermediate Objectives	Selling of models emitting 120 gCO_2/km or less in the EU market	Estimated target range [1]
JAMA	Not later than in the year 2000	165 - 175 gCO_2/km in 2003
KAMA	As soon as possible	165 - 170 gCO_2/km in 2004

This demonstrates JAMA's and KAMA's commitment to undertake efforts soon to reduce CO_2 emissions from cars.

5. Monitoring, verification of results and reporting: The *Commitments* are complemented by an exchange of letters between the Commission and JAMA, and the Commission and KAMA concerning elements to be taken into account within the

[1] The target range is indicative and does not represent an additional commitment by the industry. The Commission recognises that the indicative nature. It nevertheless attaches special importance to these intermediate objectives as a basis for verifying whether the *Agreements* are effective. This corresponds in particular to concerns expressed by the European Parliament. Against this background, the Commission would thoroughly review the *Agreements* should JAMA or KAMA fail to achieve their target range in 2003 and 2004, respectively.

monitoring. In this respect it responds partly to the Council conclusions of 25.6.1996 and 24.6.1999 in which the Council stressed the importance of monitoring. In addition the Community monitoring system, on which the Council has reached a common position, will provide statistical data for tracking the evolution of average new car CO_2 emissions (COM(98) 348 final). The future Community monitoring system and the monitoring mechanism with JAMA, KAMA and ACEA will, in the Commission's view, together provide an effective instrument for the monitoring of the agreements and a basis for a broader co-operation between all parties in the area of CO_2 emissions from passenger cars.

6. General provisions: The *Agreements* will also fulfil the other guidelines in the Communication on Environmental Agreements (COM(96) 561 final) where applicable.

(a) The *Agreements* do not affect the Commission's right of initiative under the Treaty.

(b) The *Commitments* clearly commit the parties to the *Agreements* on the industry's side.

(c) In principle, the *Agreements* end once its CO_2 emission objective has been achieved.

(d) The terms of the *Agreements*, and in particular the CO_2 objectives, may be subject to review, especially if any of the assumptions underlying the Commitments are not borne out.

It should be mentioned at this stage that, although the Commission has no reason to believe that the *Commitments* would not be in compliance with Community competition rules, a formal notification will be required under Article 81 of the EC Treaty before the Commission can take a position on the *Commitments.*

Similarly to the agreement concluded with ACEA the *Agreements* will take the form of: A *Commitment* and an exchange of letters between the Commission and JAMA, and the Commission and KAMA, formally adopted by the Boards of the associations (see Annexes to this Communication) and a *Recommendation* to be adopted by the Commission subsequently.

II.2. Equivalency of the *Agreements* compared to the ACEA *Agreement*

The Council and the Commission have expressed on several occasions the view that the agreements with JAMA and KAMA have to constitute equivalent efforts to those to which ACEA has committed itself. In the Commission's view the *Agreements* with JAMA and KAMA will be in all aspects equivalent to the one concluded with ACEA. In this respect it also meets the assumption in ACEA's commitment that "non-ACEA member car manufacturers will be committed to equivalent CO_2 reduction efforts".

II.2.1 Equivalency of JAMA's Commitment

There are two obvious modifications in the text of the *Commitment,* which were found to be necessary in order to take in to account differences in the situations in 1995 of JAMA and ACEA:

i) the target value of 140 gCO_2 /km will be met one year later

ii) the intermediate target range is somewhat larger (165 - 175 instead of 165 - 170 gCO_2/km)

In order to understand the necessity to deviate in these respects from ACEA's commitment it should be recalled that JAMA's 1995 starting point is somewhat higher than ACEA's (in the range of 193 - 202 gCO_2/km compared to 186 gCO_2/km)[2]. It should be seen as an important element of the text that JAMA commits itself nevertheless to achieve a target of 140 gCO_2/km. ACEA and JAMA will have to make equivalent CO_2 reduction efforts of about 4 gCO_2/km per year (mainly based on technological developments) in order to meet the target of 140 gCO_2/km. A level playing field requires taking into account differences in the starting points.

II.2.2 Equivalency of KAMA's Commitment

KAMA commits itself to achieve its objectives somewhat later than ACEA. In particular,

- KAMA commits itself to achieving the 140 gCO_2/km target one year later than ACEA, i.e. by 2009;

- The same is true for the indicative intermediate target (2004 instead of 2003);

- For the availability of 120 gCO_2/km models, KAMA commits itself to a make its best efforts to introduce such cars as soon as possible, while ACEA is committed to introducing such models in the EU market no later than 2000.

KAMA's CO_2 target represents a significant effort even with a one-year delay as compared to ACEA, given that KAMA's 1995 starting point is in the range of 194 to 197 gCO_2/km, i.e. higher than ACEA's (186 gCO_2/km)[2]. In some areas, Korean manufacturers are technologically behind both ACEA and JAMA and therefore have further to go (and more to spend) in order to catch up. The Commission Services consider that this justifies a one year delay - compared to ACEA - in meeting the 140g CO_2/km target for KAMA. Overall, KAMA will have to reduce CO_2 emissions as well by about 4 gCO_2/km and year (mainly based on technological developments). Against this background, the Commission considers KAMA's *Commitment* to represent an equivalent CO_2 reduction effort.

III. Conclusions

In the Commission's opinion, the draft *Agreements* with the *Japan Automobile Manufacturers Association* (JAMA) and the *Korean Automobile Manufacturers' Association* (KAMA) correspond to the guidelines in the Communication on Environmental Agreements (COM(96) 561 final), and to the benchmarks for an agreement with the industry according to the Community's strategy to reduce CO_2 emissions from passenger cars (COM(95) 689 final), and requires equivalent efforts to be taken by JAMA's and KAMA's member companies for their sales in the EU

[2] Due to the lack of measured data the starting has to be indicated as a range

compared to ACEA's commitment. The *Agreements* will make a significant contribution to the achievement of the Community's greenhouse gas emission objectives under the Kyoto Protocol. Against this background, and provided that the notification under Community competition law does not give rise to problems, the Commission believes that the *Commitments* for JAMA and KAMA are satisfactory and intends to adopt Recommendations to JAMA and KAMA as its part of the *Agreements.* Before doing so, however, the Commission would like to give the European Parliament and the Council an opportunity to express their views on the *Commitments* and the assessment in this Communication, and will therefore defer the adoption of the Recommendation until the end of November 1999.

ANNEX 1

JAMA COMMITMENT
ON CO_2 EMISSION REDUCTIONS
FROM NEW PASSENGER CARS
IN THE FRAMEWORK OF AN
ENVIRONMENTAL AGREEMENT
BETWEEN THE EUROPEAN COMMISSION AND JAMA

INTRODUCTION AND PRINCIPLES

(1) This Commitment is based on an undertaking by the Japan Automobile Manufacturers Association (JAMA) itself and has the support of all its members who sell cars in the EU market: Daihatsu, Fuji Heavy Industries (Subaru), Honda, Isuzu, Mazda, Nissan, Mitsubishi, Suzuki and Toyota, who have agreed to make every endeavour to contribute to the achievement of JAMA's goals.

This Commitment demonstrates JAMA's support for significant reductions in CO_2 emissions in line with the European Union's undertakings under the United Nations Framework Convention on Climate Change following the Kyoto Conference. At the same time it aims at preserving the diversity of the product offerings of the Japanese car manufacturers and at maintaining their competitiveness, as well as their financial performance and employment.

(2) As long as its commitments (see below) are being honoured, JAMA is assuming that this Commitment provides a complete and sufficient substitute for all new regulatory measures to limit fuel consumption or CO_2 emissions, and for any additional fiscal measures in pursuit of the CO_2 objectives of this Commitment. Any fiscal measures, including their added value to this Commitment, will be taken into account in the monitoring procedure and their potential effects will be assessed in good faith.

(3) The Japanese automotive industry's CO_2 reduction commitments are very ambitious in the light of present and future technologies, and the industry is willing and prepared to commit substantial development efforts to implement the following commitments.

(4) Together with the European Commission, JAMA will ensure that the Commitment is implemented in a manner which complies with applicable competition rules.

JAMA COMMITMENTS

(1) Some members of JAMA will introduce in the EU market not later than 2000, models emitting 120 g CO_2/km or less, measured according to Directive 93/116/EC (see Technical Annex, Point 1 Measuring Procedure).

(2) JAMA commits to achieve a target of 140 gCO_2/km by 2009, measured according to Directive 93/116/EC, on the average of the EU new car sales represented by JAMA classified as M1.

This target will mainly be achieved by technological developments affecting different car characteristics and market changes linked to these developments. Regarding technological developments, JAMA will aim at a high share of new cars sold being equipped with CO_2-efficient technologies.

(3) In 2003, JAMA will review the potential for additional CO_2 reduction, with a view to moving further towards the Community's objective of 120g CO_2/km by 2012.

(4) For 2003, JAMA considers an estimated target range of 165-175 g of CO_2/km to be appropriate.

(See Technical Annex, point 3: Review in 2003 / Estimated Target Range).

(5) To assess compliance with these commitments, there will be a joint JAMA / Commission monitoring of all the relevant factors with regard to these commitments.

JAMA's commitments are based on the following assumptions:

A) Availability of enabling fuels

Given the outstanding importance of improved fuels for CO_2 reductions JAMA assumes the full market availability of fuels with a sufficient quality to enable the application of tcchnologies needed for the industry to achieve its CO_2 commitments during the life-time of this Commitment (see Technical Annex, Point 2, Fuels Specifications).

B) Distortion of competition

In order to ensure a level-playing field, non-JAMA member car manufacturers will be committed to equivalent CO_2 reduction efforts for their sales in the EU, in line with the Council Conclusions of 25.6.1996;

C) Promotion of car CO_2-efficient technologies

Japanese car manufacturers have high expectations for certain technologies, in particular those associated with direct injected engines and HEV, which are two of the most promising routes to achieve the central commitment of 140 g CO_2/km in 2009. This commitment is based on the assumption of an unhampered diffusion of these and other car CO_2-efficient technologies into the market via competition amongst JAMA members and other market participants which is expected to result in market mix changes. Therefore it is fundamental that any measures which might hamper the diffusion process of either of these CO_2-efficient technologies will be taken into consideration in the monitoring procedure.

D) Acceptance of innovations

The acceptance by the Commission of innovative concepts for vehicles replacing conventional cars in short-haul traffic and of cars not producing fossil CO_2 as well as a share of cars using alternative fuels or propulsion systems as contributing factors to comply with the Commitment.

MONITORING

The joint JAMA / Commission monitoring procedure should cover:

(1) The development of CO_2 emissions based on the collective achievement of reductions on the average EU fleet of new car sales represented by JAMA and according to the above commitments.

(2) The development of the CO_2 emissions of non-JAMA car manufacturers for their sales in the EU, in the light of the need for equivalent efforts by all producers selling in the EU market.

(3) Any developments regarding the underlying factors upon which JAMA's Commitment is based.

(4) The impact on CO_2 emissions of new regulatory measures.

(5) The development of new breakthrough technologies (e.g. natural gas, hydrogen, fuel cells, electric drive), which might be available for production in the next decades.

(6) The development and promotion of other measures deemed to reduce fuel consumption, i.e. telematics and optimisation of the infrastructure, reducing congestion; driver education for fuel-efficient behaviour; driver information on fuel efficiency.

(7) The impacts on financial performance, competitiveness and employment within the Japanese automotive industry associated with this Commitment.

The Commission's official reports on the monitoring results will not refer to individual companies' achievements, to avoid competition being distorted. JAMA is willing to provide reasonable and appropriate data to achieve the objectives of the monitoring.

* * *

On the basis of the outcome of the monitoring, or if the impacts of this Commitment on the Japanese automotive industry, particularly its employment situation and its global competitive environment, are detrimental, JAMA and the Commission will review the situation and make any necessary adjustments in good faith.

TECHNICAL ANNEX TO THE JAMA COMMITMENT ON CO_2 EMISSION REDUCTIONS FROM NEW PASSENGER CARS

(1) Measuring Procedure

JAMA's proposals have been established according to Directive 93/116/EC, which has been fully implemented as from 1.1.1997, and will be applicable for the coming years. The implementation of this new measuring procedure has led to an artificial average increase of 9% of the CO_2 emission figures, compared to the previously used directive, whereas the CO_2 emissions from cars in the real world have not changed.

(2) Fuels Specifications

Characteristics of the fuels are key factors in car CO_2 emission reductions:

A) to achieve further emission reduction together with lowered CO_2 emissions the fuel-efficient lean-burn technology will be combined with special exhaust gas after-treatment devices capable of reducing NO_x under lean-burn conditions. But those systems only work with fuels meeting specific requirements, in particular a low sulphur content;

B) low-sulphur fuels ease the NO_x/CO_2 trade-off in favour of CO_2 emission reductions;

C) low aromatics in gasoline and a high cetane number in diesel lead to CO_2 emission reduction too.

JAMA acknowledges the outcome of the conciliation procedure between the Council and the European Parliament on 29.6.1998 and upholds its 140 g CO_2/km commitment by 2009. However, JAMA is expecting that fuels of the following better quality might be available in the market due to technical reasons, commercial competition as well as possible national policies:

A) Some gasoline (e.g. Super-Plus, 98 octane as agreed in Germany) and some diesel-plus with a maximum sulphur content of 30 ppm are provided in 2000 on the whole EU market in a sufficient volume and geographical cover.

B) In 2005 full availability of fuels on the whole EU market which satisfy the following:

- gasoline with a maximum sulphur content of 30 ppm and of a maximum aromatic content of 30%;
- diesel with a maximum sulphur content of 30 ppm and a cetane number of minimum 58.

Any problems which might arise with respect to fuel quality will be considered in the monitoring procedure.

(3) Review in 2003 / Estimated Target Range

JAMA is willing to contribute to a periodic monitoring of its commitments, jointly undertaken by JAMA and the Commission, which it sees as the main tool to examine the evolution during the period of the Commitment. This should include a joint "Major Review" in 2003, covering both JAMA and non-JAMA developments. This would incorporate the results of CO_2 emission reductions up to and including calendar year 2003, including a comparison of that year's fleet average to the estimated target range.

The reduction in CO_2 emissions will not be linear; the pace will notably depend on the timing of availability of the enabling fuels on the market as well as on the lead-times for new technologies and products and their market penetration. The reduction profile is therefore expected to be relatively slow initially and to gather pace later.

Given all the uncertainties and the lead-time necessary for introducing new technologies and models, JAMA considers an appropriate estimated target for 2003 to be within the range of 165-175 g CO_2/km.

JAMA provides this estimated target range for 2003 on the following basis:

A) it does not constitute a commitment of any sort by JAMA;

B) the provisions set out under "Monitoring" are fully implemented and any necessary adjustments to the 2009 commitment or the 2003 estimate are made in good faith;

C) in particular, fuels of sufficient quality are available - such that fuels issues do not constrain the application of technologies needed to improve fuel efficiency (see point 2 above: Fuels specifications).

ANNEX 2

KAMA COMMITMENT

ON CO_2 EMISSION REDUCTIONS

FROM NEW PASSENGER CARS

IN THE FRAMEWORK OF AN

ENVIRONMENTAL AGREEMENT

BETWEEN THE EUROPEAN COMMISSION AND KAMA

INTRODUCTION AND PRINCIPLES

(1) This Commitment is based on an undertaking by KAMA itself and has the support of all its car manufacturing companies: Hyundai Motor Company, Daewoo Motor Co Ltd. and Kia Motor Corporation, who have agreed to make every endeavour to contribute to the achievement of KAMA's goals.

This Commitment demonstrates KAMA's support for significant reductions in CO_2 emissions in line with the European Union's undertakings under the United Nations Framework Convention on Climate Change following the Kyoto Conference. At the same time it aims at preserving the diversity of the product offerings of the Korean car manufacturers and at maintaining their competitiveness, as well as their financial performance and employment.

(2) As long as its commitments (see below) are being honoured, KAMA is assuming that this Commitment provides complete and sufficient substitute for all new regulatory measures to limit fuel consumption or CO_2 emissions, and for any additional fiscal measures in pursuit of the CO_2 objectives of this Commitment. Any fiscal measures, including their added value to this Commitment, will be taken into account in the monitoring procedure and their potential effects will be assessed in good faith.

(3) The Korean automotive industry's CO_2 reduction commitments are very ambitious in the light of present and future technologies, and the industry is willing and prepared to commit substantial development efforts to implement the following commitments.

(4) Together with the European Commission, KAMA will ensure that the Commitment is implemented in a manner which complies with applicable competition rules.

KAMA COMMITMENTS

(1) KAMA will undertake its best efforts to introduce in the EU market models emitting 120 g CO_2/km or less, measured according to Directive 93/116/EC, at the earliest possible date after the year 2000 (see Technical Annex, Point 1 Measuring Procedure).

(2) KAMA commits to achieve a target of 140 g CO_2/km by 2009, measured according to Directive 93/116/EC, on the average of the EU new car sales represented by KAMA classified as M1.

This target will mainly be achieved by technological developments affecting different car characteristics and market changes linked to these developments. Regarding technological developments, KAMA will aim at a high share of new cars sold equipped with CO_2 efficient technologies.

(3) In 2004, KAMA will review the potential for additional CO_2 reduction, with a view to moving further towards the Community's objective of 120g CO_2/km by 2012.

(4) For 2004, KAMA considers an estimated target range of 165-170 g of CO_2/km to be appropriate.

(See Technical Annex, point 3: Review in 2004 / Estimated Target Range).

(5) To assess compliance with these commitments, there will be a joint KAMA / Commission monitoring of all the relevant factors with regard to these commitments.

KAMA's commitments are based on the following:

A) Availability of enabling fuels

Given the outstanding importance of improved fuels for CO_2 reductions KAMA assumes the full market availability of fuels with a sufficient quality to enable the application of technologies needed for the industry to achieve its CO_2 commitments during the life-time of this Commitment (see Technical Annex, Point 2 Fuel Specifications).

B) Distortion of competition

In order to ensure a level-playing field:

- non-KAMA member car manufacturers will be committed to equivalent CO_2 reduction efforts for their sales in the EU, in line with the Council Conclusions of 25.6.1996;

- the Community will use its best efforts to continue to seek that other car manufacturing countries will undertake equivalent car CO_2 reduction efforts, in line with the Kyoto Protocol spirit ensuring that the Korean automobile industry is not put at a competitive disadvantage in world markets by CO_2 reduction commitments in Europe.

C) Promotion of car CO_2-efficient technologies

Korean car manufacturers have high expectations for certain technologies, in particular those associated with direct injected engines and HEV, which are two of the most promising routes to achieve the central commitment of 140 g CO_2/km in 2009. This commitment is based on the assumption of an unhampered diffusion of car CO_2 efficient technologies into the market via competition amongst KAMA members and other market participants which is expected to result in market mix changes. Therefore it is fundamental that any measures which might hamper the diffusion process of either of the CO_2 efficient technologies will be taken into consideration in the monitoring procedure.

D) Acceptance of innovations

The acceptance by the Commission of innovative concepts for vehicles replacing conventional cars in short haul traffic and of cars not producing fossil CO_2 as well as a share of cars using alternative fuels or propulsion systems as contributing factors to comply with the Commitment.

MONITORING

The joint KAMA / Commission monitoring procedure should cover:

(1) The development of CO_2 emissions based on the collective achievement of reductions on the average EU fleet of new car sales represented by KAMA and according to the above commitments.

(2) The development of the CO_2 emissions of non-KAMA car manufacturers for their sales in the EU, in the light of the need for equivalent efforts by all producers selling in the EU market.

(3) Any developments regarding the underlying factors upon which KAMA's Commitment is based.

(4) The impact on CO_2 emissions of new regulatory measures.

(5) The development of new breakthrough technologies (e.g. natural gas, hydrogen, fuel cells, electric drive), which might be available for production in the next decades, and the impact of the Community's 5th R&D framework programme, which is expected to foster research in this area.

(6) The development and the promotion of other measures deemed to reduce fuel consumption, i.e. telematics and optimisation of the infrastructure reducing congestion; driver education for fuel efficient behaviour; driver information on fuel efficiency.

(7) The impacts on the financial performance, competitiveness and the employment within the Korean automotive industry associated with this Commitment.

The Commission's official reports on the monitoring results will not refer to individual companies' achievements, to avoid competition being distorted. KAMA is willing to provide the necessary data to achieve the objectives of the monitoring.

* * *

On the basis of the outcome of the monitoring, or if the impacts of this Commitment on the Korean automotive industry, particularly its employment situation and its global competitive environment, are detrimental, KAMA and the Commission will review the situation and make any necessary adjustments in good faith.

TECHNICAL ANNEX TO THE KAMA COMMITMENT ON CO_2 EMISSION REDUCTIONS FROM NEW PASSENGER CARS

(1) Measuring Procedure

KAMA's proposals have been established according to Directive 93/116/EC, which has been fully implemented as from 1.1.1997, and will be applicable for the coming years. The implementation of this new measuring procedure has led to an artificial average increase of 9% of the CO_2 emission figures, compared to the previously used directive, whereas the CO_2 emissions from cars in the real world have not changed.

(2) Fuels Specifications

Characteristics of the fuels are key factors in car CO_2 emission reductions:

A) to achieve further emission reduction together with lowered CO_2 emissions the fuel efficient lean burn technology will be combined with special exhaust gas after-treatment devices capable to reduce NO_x under lean burn conditions. But those systems are only working with fuels meeting specific requirements, in particular a low sulphur content;

B) low sulphur fuels ease the NO_x/CO_2 trade-off in favour of CO_2 emission reductions;

C) low aromatics in gasoline and a high cetane number in diesel lead to CO_2 emission reduction too.

KAMA acknowledges the outcome of the conciliation procedure between the Council and the European Parliament on 29.6.1998 and upholds its 140 g CO_2/km commitment by 2009. However, KAMA is expecting that fuels of the following better quality might be available in the market due to technical reasons, commercial competition as well as possible national policies:

A) Some gasoline (e.g. Super-Plus, 98 octane as agreed in Germany) and some diesel plus with a maximum sulphur content of 30 ppm are provided in 2000 on the whole EU market in a sufficient volume and geographical cover.

B) In 2005 full availability of fuels on the whole EU market which satisfy the following:

- gasoline with a maximum sulphur content of 30 ppm and of a maximum aromatic content of 30%;
- diesel with a maximum sulphur content of 30 ppm and a cetane number of minimum 58.

Any problems which might arise with respect to fuel quality will be considered in the monitoring procedure.

3. Review in 2004 / Estimated Target Range

KAMA is willing to contribute to a periodic monitoring of its commitments, jointly undertaken by KAMA and the Commission, which it sees as the main tool to examine the evolution during the period of the Commitment. This should include a joint "Major Review" in 2004, covering both KAMA and non-KAMA developments. This would incorporate the results of CO_2 emission reductions up to and including calendar year 2004, including comparison of that year's fleet average to the estimated target range.

The reduction in CO_2 emissions will not be linear; the pace will notably depend on the timing of availability of the enabling fuels on the market as well as on the lead-times for new technologies and products and their market penetration. The reduction profile is therefore expected to be relatively slow initially and to gather pace later.

Given all the uncertainties and the lead-time necessary for introducing new technologies and models, KAMA considers an appropriate estimated target for 2004 to be within the range of 165-170 g CO_2/km.

KAMA provides this estimated target range for 2004 on the following basis:

A) it does not constitute a commitment of any sort by KAMA;

B) the provisions set out under "Monitoring" are fully implemented and any necessary adjustment to the 2009 commitment or the 2004 estimate are made in good faith;

C) in particular, fuels of sufficient quality are available - such that fuels issues do not constrain the application of technologies needed to improve fuel efficiency (see point 2 above: Fuels specifications).

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