

Official Journal

of the European Communities

ISSN 0378-6978

L 128

Volume 42

21 May 1999

English edition

Legislation

Contents

I *Acts whose publication is obligatory*

.

II *Acts whose publication is not obligatory*

Commission

1999/332/EC:

- ★ **Commission Decision of 14 August 1998 on aid granted by Greece to Olympic Airways (notified under document number C(1998) 2423) ⁽¹⁾ 1**

1999/333/EC:

- ★ **Commission Recommendation of 3 March 1999 concerning a coordinated Community monitoring programme for 1999 to ensure compliance with maximum levels of pesticide residues in and on cereals and certain products of plant origin, including fruit and vegetables (notified under document number C(1999) 478) ⁽¹⁾ 25**

II

(Acts whose publication is not obligatory)

COMMISSION

COMMISSION DECISION

of 14 August 1998

on aid granted by Greece to Olympic Airways

(notified under document number C(1998) 2423)

(Only the Greek text is authentic)

(Text with EEA relevance)

(1999/332/EC)

THE COMMISSION OF THE EUROPEAN COMMUNITIES,

Having regard to the Treaty establishing the European Community, and in particular the first subparagraph of Article 93(2) thereof,

Having regard to the Agreement on the European Economic Area, and in particular point (a) of Article 62(1) thereof,

Having given the parties concerned notice⁽¹⁾, in accordance with the provisions of the abovementioned Articles, to submit their comments, and having regard to those comments,

Whereas:

THE FACTS

I

(1) On 7 October 1994, the Commission adopted Decision 94/696/EC on the aid granted by Greece to Olympic Airways⁽²⁾ (hereinafter 'the initial Decision' according to which the aid granted and to be granted by Greece to Olympic Airways ('OA') is compatible with the common

market and the Agreement on the European Economic Area ('the EEA Agreement') by virtue of Article 92(3)(c) of the Treaty and of Article 61(3)(c) of the EEA Agreement. The aid comprised:

- (a) loan guarantees extended to the company until then pursuant to Article 6 of Greek Law No 96/75 of 26 June 1975;
- (b) new loan guarantees totalling USD 378 million for loans to be contracted before 31 December 1997 for the purchase of new aircraft;
- (c) easing of the undertaking's debt burden by GRD 427 billion;
- (d) conversion of GRD 64 billion of the undertaking's debt to equity;
- (e) a capital injection of GRD 54 billion in three instalments of GRD 19, 23 and 12 billion in 1995, 1996 and 1997 respectively.

(2) The last four of these five measures formed part of a restructuring and recapitalisation plan for OA which had initially been submitted to the Commission. On this basis, the Commission considered that the aid would facilitate the development of air-transport activity in a fragmented, peripheral region of the

⁽¹⁾ OJ C 176, 19.6.1996, p. 5.

⁽²⁾ OJ L 273, 25.10.1994, p. 22.

Community, of which it is one of the least developed parts.

- (3) The compatibility of the aid was however conditional on compliance by Greece with 21 commitments. These commitments included:

(a) the acceptance that the Commission will, if necessary, have the main results of the plan and the application of the conditions verified by an independent consultant chosen by the Commission in conjunction with the Greek Government (Article 1(g) of the Decision);

(b) the submission by the Greek Government to the Commission each year, at least four weeks before the payment of each instalment of capital increase scheduled in January 1996 and January 1997, of a report on the implementation of the restructuring plan of the company which the Commission could submit for scrutiny by an independent consultant (Article 1(h) of the Decision).

II

- (4) Pursuant to the abovementioned provisions, Greece submitted a report on the implementation of the plan to the Commission on 12 December 1995, prior to the payment of the second instalment of the capital increase of GRD 23 billion scheduled in January 1996. The Commission, with the help of an independent consultant, verified this report and compliance with the conditions.

- (5) On the basis of the verification of the report and of compliance with the conditions, and taking into account the position expressed by Greece in a letter of 16 April 1996, the Commission adopted on 30 April 1996 a decision whereby it decided to open the procedure provided for in Article 93(2) of the Treaty with regard to the aids authorised by its initial Decision and with regard to the new and non-notified aids which it had discovered.

- (6) The opening of the procedure with regard to the aids initially authorised was motivated by the breach of several commitments set out in Article 1 of the initial Decision. Hence, the Commission identified shortcomings with regard to the following commitments:

- (a) The commitment to refrain from interfering in the management of OA in the future except within the strict limits of its role as shareholder (Article 1(b) of the initial Decision).

The Commission detected several cases of continued and undue interference by the Greek Government in the management of the company:

- (i) the government appears to appoint directly the board members of the five subsidiaries of OA although legally this task is incumbent on two representatives of the OA board (hereinafter issue 1);

- (ii) the members of OA's board, which are all designated by the State as sole shareholder, appear to have the tendency to interfere constantly and in unexpected ways in the day-to-day management of the company, particularly in the area of staff appointments. The Commission considered that this is notably evidenced by the frequent meetings of the board and the frequent changes of its members (hereinafter issue 2);

- (iii) the status of OA resulting from Law No 2271/94, which had been passed in order to implement the restructuring plan of the company was not comparable to that of a private undertaking as regards staff management. Article 4(4) of that Law provides for an express exception to the exemption of OA and its subsidiaries from the application of legislation on public undertakings in so far as they remained subject to Articles 1 to 24 of Law No 2190/94. The Commission considered that these provisions set out a cumbersome administrative recruitment procedure unsuited to personnel management in a company such as OA and that this exception testifies to the persistence of State control in a key element of management of the company (hereinafter issue 3).

In addition, Article 4(2) of Law No 2271/94 also provides that working regulations of OA employees 'shall be approved by Presidential Decree on a proposal from the Minister for Transport and Communications, notwithstanding the provisions of Article 8(3) of Law No 2224/94'. There is uncertainty as to whether this procedure is to apply beyond 31 January 1995. The same Article of Law No 2271/94 also explicitly provides that the agreements concluded in December 1994 between OA and representatives of the cabin crew on working conditions and any future agreement on the same matters are likewise to be approved by Presidential Decree on a proposal from the Ministry of Transport and Communications. Article 8(3) of Law No 2224/94, however, which constitutes the ordinary law applicable to undertakings in Greece, provides that the working regulations for the staff of undertakings are jointly approved by the social partners without any interference from the State, and then communicated to the Ministry of Labour (hereinafter issue 4).

Finally, there is uncertainty as to the exact scope of the abovementioned Article 4(4) of Law No 2271/94, as Greek Law No 2366/95 – adopted after Law No 2271/94 in December 1995 – appears to provide for specific regimes for OA staff, thus casting doubts on whether OA enjoys the same autonomy *vis-à-vis* the Greek Government from a legal point of view as a public limited company (hereinafter issue 5);

- (iv) Law No 2271/94 in itself constitutes an interference in the business, in that it determines the voluntary retirement conditions of OA personnel and the working conditions within the company. With effect from the notification of the initial Decision to the Greek authorities, OA should be governed only by ordinary Greek law, supplemented, where appropriate, by internal company agreements, particularly as regards

labour law and social security. This non-compliance with the Decision is clear and in the case of the voluntary departure payments, which, in application of Article 2(4) of Law No 2271/94 exceed the payment normally due by, on the one hand, 25 % and, on the other hand, a sum corresponding to two months' salary (hereinafter issue 6);

- (v) OA still does not appear to have complete freedom to define and organise its network. Olympic Aviation, the domestic subsidiary, is obliged to operate on six to seven small, unprofitable routes between the Greek mainland and the Greek islands for which public service obligations have not been imposed in accordance with Council Regulation (EEC) No 2408/92 of 23 July 1992 on access for Community air carriers to intra-Community air routes⁽¹⁾ (hereinafter issue 7);
- (vi) OA transports the Greek press at extremely low fares compared with the costs incurred by this activity. Although the Government does not formally impose this obligation on OA (which cost is estimated at GRD 1,5 billion per annum), the Commission considered that such an abnormal situation would not be perpetuated by a truly autonomous management (hereinafter issue 8);
- (vii) the Government and the Greek Civil Aviation Authority have so far refrained from paying for tickets issued by OA on behalf of their officials, agents and political staff. The debt in question amounts to several billion Greek drachmas. The Commission considered that the non-payment of this debt points to a continuing relationship of dependence between the Greek State and its national airline (hereinafter issue 9).

- (b) The commitment to give OA the fiscal status of a public limited company comparable to that of Greek companies under ordinary law, except for exempting it from any taxes likely to affect the recapitalisation operation provided for in Article 1(c) of the initial Decision (Article 1(c) of the initial Decision).

⁽¹⁾ OJ L 240, 24.8.1992, p.8.

- (i) Article 1(1) of Law No 2271/94 provides that 'the profits for financial years 1994, 1995, 1996 and 1997 of OA and Olympic Aviation SA shall be exempted from any form of public tax or levy to the extent that they result essentially in the reorganisation of the structure of their balance sheet in conformity with the approved recovery plan, on condition that these profits are made available for the capital restructuring and reorganisation of the company'. This provision goes far beyond the exemption authorised by Article 1(c) of the initial Decision. Given that the conversion to equity of GRD 64 billion of the company's debt and the various capital injections totalling GRD 54 billion have no direct impact on the taxation of enterprises, the exemption in question applies solely to the tax on the exceptional profit resulting, for 1994 alone, from the cancellation of OA's debt totalling GRD 427 billion. Consequently, the Commission considered that the very general scope of the exemption provided for in Article 1(1) of Law No 2271/94 means that OA cannot be regarded as having the fiscal status of a public limited company comparable to that of Greek undertakings under ordinary law for the years 1995, 1996 and 1997 (hereinafter issue 10).
- (ii) The same applies to the exemption provided for in Article 1(j) of Law No 2271/94, which states that 'OA shall be exempted from any commission, tax or levy to be paid to the State or to third parties and shall be relieved of any additional charge' resulting from the granting of loan guarantees by Greece and the instalments of the capital injection (issue 9). The exemption authorised by Article 1(c) of the initial Decision applies solely to taxes and not to all charges likely to affect the company, and it concerns exclusively the recapitalisation operations and not the grant of State guarantees (hereinafter issue 11).
- (c) The commitment to bring the agreements between the Greek State and OA into line with the provisions of the third package of liberalisation measures⁽¹⁾ by 31 December 1994 (Article 1(d) of the Decision):
- (i) The presidential Decree terminating the preferential rights of OA to operate the domestic mainland services in Greece as from 31 December 1995 has still not come into force. The Commission considered that the continuation in force of national legislation which conflicts with Regulation (EEC) No 2408/92 constitutes a failure by Greece to comply with the abovementioned commitment (hereinafter issue 12).
- (ii) It also appears that the Greek State has not yet terminated OA's exclusive right to operate domestic scheduled flights within continental Greece which were not operated before 1 January 1993 or which have not been operated by it since that date, in particular those of a seasonal nature. The Commission considers that this would amount to a failure to comply with the abovementioned commitment as well as with the commitment provided by Article 1(u) of the initial Decision which states that the Greek Government does not maintain, in conformity with Article 5 of Regulation (EEC) No 2408/92 any exclusive concession to the benefit of OA on domestic scheduled flights within continental Greece which were not operated before 1 January 1993 or which have not been operated continuously by OA since that date (hereinafter issue 13).
- (d) The commitment not to grant any further aid to OA in any form whatsoever, in conformity with Community law (Article 1(e) of the initial Decision).
- (i) Article 2(12)(a) of Law No 2271/94 provides that: 'the purchase cost for military service and the years of previous service provided for in paragraph 2 and the payments provided
- (c) The commitment to bring the agreements between the Greek State and OA into line

⁽¹⁾ Council Regulation (EEC) No 2407/92 on licensing of air carriers (OJ L 240, 24.8.1992, p. 1); Council Regulation (EEC) No 2408/92; Council Regulation (EEC) No 2409/92 on fares and rates for air services (OJ L 240, 24.8.1992, p. 15).

for in paragraph 4 and subparagraph (b) of paragraph 7 of this Article shall be borne by the State budget up to an amount of GRD 11 billion'. The Commission considered that this amount constitutes aid since the State is assuming direct responsibility for costs that should normally be borne by OA. Such aid affects trade between Member States and distorts competition in view of the international dimension of air transport and the fact that the benefit is reserved to OA alone. It therefore constitutes State aid within the meaning of Article 92(1) of the Treaty and Article 61(1) of the Agreement (hereinafter issue 14).

(ii) As indicated above, OA is exempt from any form of public tax or public levy for the years 1995, 1996 and 1997. It is also exempt from all taxes and other expenses in respect of the loan guarantees. The Commission considered that these measures, specific to OA, also constitute new State aid since, as has been explained previously, they were in no way provided for in Article 1(c) of the initial Decision (hereinafter issue 15).

(iii) Finally, OA has not paid landing and parking fees at Greek airports since the initial Decision was notified to Greece. Although the company is not formally exempt and these unpaid fees are shown as debts in the company's liabilities, the exemption of such fees for OA which derives from Article 5(1) and (2) of Greek Decree No DII/35502/15316 of 16 September 1994 has not been formally repealed (hereinafter issue 16).

(e) The commitment to accept the principle that airlines other than OA are authorised to operate routes between Greece and countries not belonging to the EEA and to make designations or multiple designations solely on the basis of the merits of each request (Article 1(o) of the initial Decision):

The presidential Decree terminating OA's exclusive right to operate scheduled international flights (passenger, freight, mail) under the Greek flag between Greece and countries not belonging to the EEA has still not entered into force. This is the same decree as that abolishing OA's preferential right on domestic Greek routes (mentioned in point (c)(i)). The Commission considered that this delay since the notification of the initial Decision constitutes a breach of the above commitment (hereinafter issue 17).

(7) In the light of the above, the Commission considered that although OA seemed to make a very satisfactory recovery in conformity with the plan on which the initial Decision was based, the Greek Government's failure to comply with several of the commitments, adherence to which was a condition of its authorisation of the aid, cast doubts on the continuous compatibility of this aid with Article 92 of the Treaty and Article 61 of the EEA Agreement. These new circumstances disturbed the balance struck in the initial Decision. Therefore, the authorisation of the aid was compromised. In this context, the Commission considered that it had to re-examine the aid in order to adopt a new and, if necessary, different Decision from that taken on 7 October 1994.

(8) The opening of the procedure was also prompted by serious doubts regarding the compatibility with Article 92 of the Treaty and Article 61 of the EEA Agreement of the new and non-notified aids it had discovered, namely that the Greek State had assumed responsibility for a sum of GRD 11 billion, tax exemptions for the period 1995 to 1997 and for loan guarantees, exemption from non-fiscal expenses likely to affect capital injections and possible exemptions from landing and parking fees.

(9) By letter of 31 May 1996, the Commission notified Greece of its decision to open the procedure provided for in Article 93(2) of the Treaty and gave it formal notice to submit its comments. By this letter, the Commission also reminded Greece that in accordance with Article 93(3) of the Treaty, no aid measure may be put into effect until the abovementioned procedure

has resulted in a final decision. On this basis, the remaining capital injections of GRD 23 billion and GRD 12 billion could not be carried out and the remaining State guarantees for USD 378 million could not be granted. This letter was published in the *Official Journal of the European Communities*⁽¹⁾ and the other Member States and interested parties were also requested to submit their comments.

Commission's decision to open the procedure provided for in Article 93(2) of the Treaty and raised a number of questions relating to the doubts expressed in that decision.

III

(10) By letter of 1 July 1996, Greece submitted its comments in reply to the Commission's letter of 31 May 1996 informing it of the decision to open the procedure.

(11) First, Greece asserted that notwithstanding the opening of the procedure with regard to the aids initially authorised in 1994, Greece was entitled to carry out the capital injections planned for 1995, 1996 and 1997. Article 1(i) of the initial Decision provides that Greece is committed not to carry out these capital injections only where the objectives of the restructuring plan have not been attained; it does not mention the failure to comply with the commitments.

(12) Secondly, Greece made detailed comments on the issues involved by adherence to the commitments.

(13) Following the opening of the procedure, the United Kingdom and Danish Governments and interested parties including British Airways, Lufthansa, SAS, Olympic Airways, IACA (International Air Carrier Association), ACE (European Community Air Carrier Association), ADL (German Charter Carrier Association) submitted their comments on this case. With the exception of the comments submitted by OA, all the comments received approved the

(14) In their observations, the States which commented pointed out that the Treaty rules on State aid must be strictly applied in the context of increased competition within the common air transport market, following the entry into force of the third package of liberalisation measures on 1 January 1993. On this basis, compliance with commitments which condition the compatibility of an aid with the common market must be effectively ensured. The procedure needs to be opened when these commitments are not adhered to by a Member State, as has occurred here, where the compromise reached in the Commission Decision of 7 October 1994 has been breached. In particular, the commitment not to give any further aid is a very important condition. The United Kingdom Government added that, if Greece had effectively not honoured the commitments, the aids originally authorised should be recovered. The Danish Government for its part insisted on the fact that the new aid measures cannot be exempted since they cannot meet the requirements of the Market Economy Investor Principle and since, in any case, there is no exceptional circumstance unforeseeable and external to OA which could possibly justify these new aid measures.

(15) These points also appear, to various degrees, in the observation of the interested third parties who also make additional points concerning the failure of Greece to comply with the commitments.

(16) With the exception of OA, all interested parties denounced the monopoly of Olympic Airways on third-party handling services at Greek airports, which results in a poor quality of service and high prices. In addition, they claimed that OA provides a far better service for its own flights as compared to the service it provides to its competitors, thus clearly discriminating against them. SAS requested the immediate liberalisation of ground-handling services in Greece in order to restore the balance of the initial Commission Decision.

⁽¹⁾ See footnote 1, page 1.

- (17) Some of the interested parties indicated that, contrary to the confirmation given by Greece in the initial Decision, self-handling is not in practice fully liberalised in Greece. Lufthansa indicated that no response has been given since January 1996 by the Greek Civil Aviation Authority to its application for a self-handling licence at Athens-Hellenikon airport. British Airways mentioned its continuous difficulties in effectively self-handling its flights.
- (18) Lufthansa further indicated that the aid received by OA distorts competition on the routes between Germany and Greece as OA decreased its fares on these routes.
- (19) ACE called for the discontinuation of the exemption of the Greek islands from the application of the third package in order to safeguard the balance of the initial Commission Decision.
- (20) ADL indicated that charter flights operated by Community air carriers between other Member States and the Greek islands remain subject to important constraints by virtue of a Greek Regulation of 1 March 1996. Hence, those carriers cannot sell one-way tickets, nor can they transport freight apart from agricultural products and press publications. ADL further stressed that these restrictions were not applied to OA. It also requested the application of the third package to the Greek islands.
- (21) OA made comments similar to those submitted by Greece.
- (22) All the comments were communicated to Greece by letter of 30 July 1996.

IV

- (23) The comments of the interested parties raised two additional issues which further impaired the balance of the initial Decision:
 - (a) The restrictions laid down by the Greek Regulation of 1 March 1996 with regard to

the operation of non-scheduled air services to the Greek islands are incompatible with the commitment of Greece to comply with the definition of non-scheduled air services as it may be inferred from the provisions of Regulation (EEC) No 2408/92; in particular not to impose on non-scheduled services any constraint such as the prohibition of 'seat only' provision on return journeys, prohibition of the transport of cargo or mail and the requirement of a minimum sojourn time (Article 1(r) of the initial Commission Decision). Moreover, the Commission was concerned by the fact that those restrictions would not apply to OA, which would then benefit from a preferential regime involving a discrimination (hereinafter issue 18).

- (b) Although Article 1 of the initial Decision does not include a specific commitment on the part of Greece as to self-handling at Greek airports, the initial Decision states that 'the Commission takes note of the Greek authorities' assurances that all aspects of self-handling are authorised at those airports' as an alternative to the poor quality of service offered by OA in the framework of its monopoly for third-party handling services. This assurance had been taken into account by the Commission in the course of its assessment of the compatibility of the aid.

The practical difficulties or even the impossibility for several Community air carriers to self-handle their flights at Greek airports led the Commission to consider that, in practice, self-handling was not fully authorised at Greek airports. This was further evidenced by information transmitted to the Commission by the Association of Greek airlines on 11 June 1996 according to which no reply had been given so far by the Greek Civil Aviation Authority to the applications for self-handling lodged in December 1995 by Venus Airlines for Kos, Cronus Airlines for Thessalonica and KAL for Heraklion and Rhodes (hereinafter issue 19).

- (24) By letters of 4 July 1996 and 7 August 1996, the Commission drew the attention of Greece to these new issues and requested information thereon.

- (25) In addition, following a closer examination of the status of OA under Greek law with the help of a specialised lawyer, the Commission also identified an additional breach of the commitment of Greece not to grant any further aid to OA in any form whatsoever (Article 1(e) of the initial Commission Decision). Article 2.4 of Law No 2271/94 provides that the redundancy indemnities given to OA employees accepting early retirement in accordance with the conditions set out by the same provision is not subject to ordinary income taxation but to a preferential income taxation. This preferential regime constitutes an incentive to employees to leave the company and therefore allows OA to secure the redundancy objective set out by the restructuring plan. On this basis, it constitutes an aid since the State is *de facto* assuming direct responsibility for costs which would otherwise need to be borne by OA in order to reach the same objective. This aid affects trade between Member States and distorts competition in view of the international dimension of air transport and the fact that the benefit is reserved to OA alone. It therefore constitutes State aid within the meaning of Article 92(1) of the Treaty and Article 61 of the EEA Agreement (hereinafter issue 16a).
- (26) Finally, the study of the status of OA also revealed that the unpaid debt of the Greek State to OA consisted not only of unpaid services to the Greek Civil Aviation Authority but also of services to various other State entities, including ministries, Government agencies and public undertakings. Apart from the State debt, the Greek political parties had also accumulated substantial debts towards OA (see issue 9 above).
- (27) The Commission sent to Greece on 4 December 1996 a letter requesting information on all the issues concerning a breach of the commitments as identified in the Commission Decision of 30 April 1996 opening the procedure as well as on the abovementioned new issues.
- (28) Continued contacts and exchanges of information took place between the Commission and Greece in 1997.
- (29) On 13 June 1997, the Commission indicated to the representatives of the Greek Government that, given the time that had elapsed since its Decision to open the procedure (14 months) and given the fact that the restructuring plan on which the initial Decision was based ended in 1997, the Commission needed a confirmation that the objectives of the plan had been achieved by OA and that the company's return to viability was secured. Greece indicated that a report on this matter would be submitted to the Commission.
- (30) Accordingly, on 20 August 1997, Greece submitted to the Commission a report concerning the financial performance of OA for the period 1995 to 1997 and including financial projections up to 2001. In conformity with Article 1(g) of the initial Decision, the Commission appointed, in conjunction with Greece, an independent consultant (Deloitte & Touche) to assess the implementation of the plan and progress made. The consultant's report was submitted on 10 November 1997. The report was based on OA's audited accounts for 1996 and provisional accounts for 1997.
- (31) It emerged from the report that, although OA had continued to make efforts to maintain its return to viability, it had not met the objectives of the restructuring plan.
- (32) First, although net profits had continued increasing since 1995, they had increased at a slower rate than planned (from GRD 9,9 billion in 1995 to a projected GRD 14,6 billion for 1997, whereas the plan had provided for an increase from GRD 13,9 billion in 1995 to GRD 29,6 billion in 1997). OA had been negatively affected by higher than expected exchange rates on the US dollar. However, the effects of this situation were largely counterbalanced by higher than expected growth of the markets on which OA was active (5,5% against 3% originally forecast) and accounting adjustments. A more detailed analysis revealed that the air-transport business of OA was actually still making losses and that without the contribution of ground-handling activities which continued to generate important revenues because of the monopoly held by OA (GRD 40,9 billion in 1996, projected at 40 billion in 1997), the company would be making losses.

- (33) Secondly, some restructuring measures provided by the plan had not been fully implemented or had not produced the expected results. This was the case in particular for personnel reductions and the change of working regulations, the reorganisation of the structure of the company, the setting-up of a reliable and comprehensive management information system and to a lesser extent for the reorganisation of the network. As a result, OA had failed to meet the operational objectives of the plan. Personnel costs remained of high concern, as they had increased far beyond projections. Personnel costs increased substantially between 1995 and 1996 despite reductions in the number of employees. Moreover, personnel productivity was also an area of concern as it remained substantially below other Community carriers belonging to the Association of European Air carriers (AEA).
- (34) Therefore, although OA remained viable for the time being, it was clear that, in the context of the imminent liberalisation of ground-handling activities in the Community (which became effective with Council Directive 96/67/EC of 15 October 1996 on access to the ground-handling market at Community airports⁽¹⁾), its long-term viability could be achieved only if the company could secure the profitability of its air-transport business. This was not the case, as OA was still lacking a real competitive structure in terms of adequation between costs (in particular labour costs) and revenues. Moreover, there were serious concerns as to its ability to face the important investments involved by its fleet renewal and its move to the new Athens airport at Spata. These two issues clearly constituted important medium-term challenges for the viability of OA. Finally, the company also had to take into account the constraint involved by the fact that the last two instalments of the capital injection initially scheduled for payment in January 1996 and January 1997 and the State guarantees worth GRD 378 billion remained blocked for the time being as a result of the opening of the procedure.
- (35) On this basis, it was clear that OA needed, on the one hand, to fully implement those restructuring measures for which actions had not been taken and, on the other, to update the plan and provide for additional restructuring measures. These additional measures were necessary to take into account the present financial position of OA and the financial consequences of the abovementioned challenges and constraint faced by the company.
- (36) On 21 November 1997, the Commission presented the results of these findings to the management of OA. The management of OA broadly accepted these findings and indicated that the restructuring plan was in the process of being updated on the basis of a report prepared by a firm of financial consultants appointed by OA (McKinsey).
- (37) However, in December 1997 the Greek Government decided to replace the management team of OA. A new management team effectively came into office in January 1998 and started designing the revised restructuring plan. This revised plan was to be based on new working regulations to be agreed between the company and the 17 unions representing the employees. It was expected that Greece would submit the revised plan to the Commission in April 1998.
- (38) Following a negative reaction by the unions which rejected the proposed new working regulations, OA was unable to finalise the revised restructuring plan as envisaged. At the end of March 1998, the company underwent a severe internal crisis which caused substantial disruption to its operations. At the same time, it appeared that the company was facing serious liquidity problems as it had to make advance payments for the aircraft ordered for the renewal of the fleet without having arranged for their financing, because no State guarantees were available. The internal crisis was finally halted when the Greek Government, in accordance with Greek law, decided to impose the working regulations proposed by OA by way of Law No 2602/98 adopted by the Greek Parliament on 9 April 1998.
- (39) Contacts between the Commission, Greece and OA as well as exchanges of information on all the issues involved in the case (including the revision of the restructuring plan) have
-
- (¹) OJ L 272, 25.10.1996, p. 36.

continued since February 1998. These contacts included meetings in Athens and Brussels on 19 February 1998, 16 March 1998, 30 April 1998, 5, 9, 22 and 29 June 1998.

- (40) By two letters of 3 and 6 July 1998, Greece submitted to the Commission a revised restructuring programme for OA and additional information on compliance with the commitments and the additional issues identified by the Commission in its letter of 4 December 1996.

VI

- (41) On the basis of all the information transmitted by Greece following the opening of the procedure, notably by letters of 28 May 1998, 3 and 6 July 1998 and by hand on the occasion of various meetings, the situation concerning first the commitments and the additional issues identified by the Commission and secondly the revised restructuring plan is as follows.

Commitments and the additional issues identified by the Commission

- (42) As to the commitments set out in Article 1 of the initial Decision:

- (a) On the commitment to refrain from interfering in the management of OA except within the strict limits of the role of the Greek Government as shareholder (Article 1(b) of the initial Decision):

- (i) With regard to the appointment of the board members of OA subsidiaries, the Commission received formal assurances from the Greek authorities that this issue is a matter exclusively reserved to OA's management (issue 1).
- (ii) With regard to the constant interference of the board of OA in day-to-day management of the company (issue 2), the Commission

received formal assurances from Greece that, in accordance with Greek law, the board's mission remains limited to the general formulation of the company's policy.

- (iii) With regard to the cumbersome administrative recruitment procedure provided by Articles 1 to 24 of Law No 2190/94 (issue 3), the Commission was supplied with Greek Law No 2527/97, which provides for a specific *sui generis* recruitment procedure for OA seasonal staff. Accordingly, OA can directly contract seasonal staff from a reserve list without any additional procedure.

- (iv) With regard to the approval of the working regulations applicable to OA staff by Presidential Decree (issue 4), Greece formally confirmed to the Commission that this procedure was only applied once in the framework of Law No 2271/94 and that since 31 January 1995, the ordinary arrangements under Greek labour law had applied. The Greek authorities further indicated that, in any case, it is common practice for the social partners to receive formal endorsement of their agreements on working regulations by the State through a legislative provision.

- (v) With regard to the specific arrangements set out by Law No 2366/95 for OA (issue 5) and the fact that Law No 2271/94 determined the working conditions for OA and the conditions for voluntary retirement (issue 6), this procedure was necessary in order to implement the changes brought about by the restructuring programme of OA. The corresponding provisions of Law No 2271/94 were in fact an essential element of the plan.

- (vi) With regard to the freedom of OA to define and organise its network (issue 7), Greece indicated that it was not imposing on OA the obligation to operate six to seven small domestic routes. This was further confirmed by

OA itself, which indicated that it is entirely free to decide which routes it wants to operate. In this connection, the company indicated that the reorganisation of its network is part of the follow up of its restructuring and takes place on the basis of commercial considerations.

(vii) With regard to the conditions for the transport of press publications (issue 8), OA has applied new increased tariffs since 1 June 1998. These tariffs are based on the prevailing IATA rules.

(viii) With regard to the settlement of the respective debts of the Greek State and OA (issue 9), the Greek authorities gave the following information and assurances:

— On the basis of a formal agreement between the Greek Civil Aviation Authority and OA, all services provided by OA to the Greek Civil Aviation Authority are provided in accordance with OA's normal commercial and pricing policy. The compensation of the respective debts of OA and the Greek Civil Aviation Authority to each other has been carried out. On this basis, OA owes GRD 1,29 billion to the Greek Civil Aviation Authority (mainly past unpaid landing and parking fees). This amount will be paid before 31 December 1998. An amount of GRD 375 million of debt is currently owed by the Greek Civil Aviation Authority to OA. The Greek courts will settle this matter.

— Since January 1995, the issuing of tickets for travel by Greek Government officials on mission is conducted under normal commercial and pricing terms.

— All State entities have started to pay back their debts to OA. Central Government agencies have already paid GRD 5,78 billion and an estimated GRD 2,63 billion will be paid upon confirmation of the amounts involved. Social security

funds and other State entities have already paid GRD 228 million and an estimated GRD 1,22 billion will be paid upon confirmation of the amounts involved. Should these entities not be in a financial position to pay their remaining debts for budget reasons, the State will secure the corresponding payments to OA. In any case, all State debts will be paid before 31 December 1998.

— The debts of private entities which are placed under the supervision of public entities and of public companies will be claimed by OA before the Greek courts in accordance with normal procedures.

— The debts of the political parties to OA, amounting to GRD 1,64 billion, will be paid in accordance with the provisions of Law No 2602/98 which provides for their payment no later than 31 December 1999. For this purpose, the amounts concerned will be deducted from State funding made available to the political parties.

(b) On the commitment to give OA the fiscal status of a public limited company comparable to that of Greek companies under ordinary law (Article 1(c) of the initial Decision):

— With regard to the scope of the tax exemption referred to in Article 1(1) of Law No 2271/94 (issue 10), Greece gave written confirmation to the Commission that this provision applies only to the tax on exceptional profit resulting, for 1994, from the cancellation of OA's debt totalling GRD 427 billion.

— With regard to the scope of tax exemption referred to in Article 1(j) of

Law No 2271/94 (issue 11), Greece confirmed that this provision was only applied for taxes concerning the recapitalisation of OA and not to other forms of charges nor to taxes concerning the State guarantees.

consideration the fact that the Commission considered that these measures involved new aids to OA, it was willing to reduce the amount of the remaining part of the capital injection to be carried out in accordance with the restructuring plan as approved by the Commission in 1994 by GRD 13,2 billion.

- (c) On the commitment to bring the agreements between the Greek Government and OA into line with the provisions of the third package by 31 December 1994 (Article 1(d) of the Decision):

- (ii) With regard to the aid involved by Article 1(1) and (j) of Law No 2271/94 (issue 15), Greece referred to the fact that the exact scope of the tax and levy exemptions had been clarified and did not involve any other aid than that expressly authorised by the initial Decision.

With regard to the entry into force of the Presidential Decree terminating the preferential rights of OA to operate mainland services (issue 12) and the termination of the exclusive right of OA to operate mainland domestic scheduled services which were not operated before 1 January 1993 or which have not been operated by it since that date (issue 13), the Greek authorities referred to Presidential Decree No 359 of 13 September 1996 which entered into force on 19 September 1996. This Presidential Decree formally terminates all preferential and/or exclusive rights of OA for the operation of both mainland domestic services in Greece and services between Greece and non-EEA countries.

- (iii) With regard to the aid involved by the continuation of the exemption of OA from the payment of parking and landing fees at Greek airports after the notification of the initial Decision (issue 16), Greece referred to the Presidential Decree No 138/97 of 13 June 1997, whereby the exemption enjoyed by OA in this regard by virtue of Greek Decree No DII/35502/15316 was formally abrogated. It also referred to the fact that the amount of unpaid charges owed by OA to the Greek Civil Aviation Authority since 1 January 1995 will be compensated with the debts owed by the Greek Civil Aviation Authority to OA (see issue 9).

- (d) On the commitment not to grant any further aid to OA in any form whatsoever, in conformity with Community law (Article 1(e) of the initial Decision):

- (e) On the commitment to accept the principle that airlines other than OA are authorised to operate routes between Greece and countries not belonging to the EEA and to make designations or multiple designations solely on the basis of the merits of each request (Article 1(o) of the Decision):

- (i) With regard to the aids involved in the GRD 11 billion mentioned in Article 2(12)(a) of Law No 2271/94 (issue 14) and by the preferential tax treatment of the redundancy indemnities granted to OA employees as provided by Article 2.4 of Law 2271/94 (issue 16a). Greece indicated that the cost of the preferential tax treatment was estimated at GRD 2,2 billion. Greece also informed the Commission by letter of 6 July 1998 that, taking into

With regard to the entry into force of the Decree abrogating the exclusive rights enjoyed by OA in this regard (issue 17), Greece referred to the abovementioned Presidential Decree No 359 of 13 September 1996 which entered into force on 19 September 1996. This Presidential Decree terminated all exclusive rights held by OA

for the operation of services between Greece and non-EEA countries.

- (f) On the commitment to accept the indirect definition of non-scheduled air services as indicated in the provisions of Regulation (EEC) No 2408/92, in particular not to impose any constraint on non-scheduled services (Article 1(r) of the initial Decision):

With regard to the abolition of existing restrictions for the provision of non-scheduled services to the Greek islands (issue 18), Greece referred to the Greek Regulation No D1/A/51328/2680 of 17 December 1997, which removes the operational constraint initially provided for the transport of freight by the Greek Regulation of 1 March 1996 and fully applies to all Community air carriers, including OA.

- (43) As regards the issue of self-handling (issue 19), Greece referred to the modification of the Greek Regulation for the procedure for the granting of self-handling licences which was adopted on 4 November 1997. Accordingly, the Greek Civil Aviation Authority is now under the obligation to respond to any application within two months. In the absence of any response, the approval of the application is automatic and the Greek Civil Aviation Authority is therefore under an obligation to grant the licence.

- (44) Moreover, Greece informed the Commission that Cronus Airlines had been granted a self-handling licence for the airports of Thessaloniki, Athens and Heraklion. The application of Venus Airlines for Kos did not need to be further considered as the company had ceased ground-handling operations. The pending applications of KAL, Air Greece and Avionic for the airports of Heraklion, Rhodes, Mtilini, Santorini and Thessaloniki, which were initially refused, are presently under re-examination. With regard to the application lodged by Lufthansa, Greece indicated that this application is being examined and that, in this framework and in accordance with the applicable procedure, a request has been made to the company for an audit of its personnel and equipment.

- (45) Finally, Greece indicated to the Commission that Directive 96/67/EC on access to the ground-handling market at Community airports is in the final stage of implementation and that those airports which do not fall within the scope of the Directive will remain covered by the present arrangements applicable in Greece. According to those arrangements, self-handling is fully authorised. Licences can only be refused on the basis of objective space and capacity constraints or on the basis of safety and security considerations.

Revised restructuring plan

- (46) The revised restructuring plan submitted by Greece to the Commission covers the period 1998 to 2002. It takes into account the final results of OA for 1997 and preliminary results for the first months of 1998. These results show that the position of OA has further deteriorated as compared with the results set out by the report submitted by Greece on 20 August 1997. While this report had projected net profits in the order of GRD 14,6 billion for 1997 (against GRD 19,6 billion projected by the restructuring plan), OA has actually posted a net loss of GRD 6,8 billion. This loss of profitability directly stemmed from an extraordinary salary increase granted in order to resolve personnel conflicts. This increase resulted in a 19% labour cost rise over 1996 (+ GRD 25 billion).

- (47) The revised restructuring does not provide for any aids other than those authorised by the initial Decision. However, in order to reflect the reduction of the remaining amount of the capital increase not yet granted to OA to counterbalance the GRD 13,2 billion of new aid (see issues 15 and 16a), the revised plan only provides for a capital increase of GRD 21,8 billion instead of the initially planned amount of GRD 35 billion.

- (48) The revised plan aims at ensuring the long-term viability of the company by the full implementation of the restructuring measures provided by the initial plan and by the

implementation of additional restructuring measures. These measures concentrate on two objectives:

- (a) The reorganisation of the cost structure of the company:

The plan is primarily based on the new working regulations included in Law No 2606/98 of 9 April 1998 which provided for new working conditions based upon the recommendations of a report produced by McKinsey. These include:

- (i) General salary freeze for the period 1998 to 2000 and limited convergence salary increases for the period 2001 to 2002.
- (ii) Introduction of working time conditions for crew members in line with international standards.
- (iii) A reduction of jobs (approximately 1 000) and hierarchy levels (from eight to four).
- (iv) Discontinuation of various allowances granted to specific categories of personnel.
- (v) Overtime decrease, introduction of a flexible timetable adapted to the operational needs of the company, merging of positions (all for ground staff).
- (vi) Reduction of staff by 1 300 through natural wastage and reduction of seasonal staff by 30 %.

These measures will allow OA to reduce operating costs. Their implementation has already started.

- (b) The improvement of the yields:

Apart from the new working conditions

which will impact positively on the productivity of the company and thus on the yields, the plan provides for the following measures:

- (i) Product improvement and redesign, together with the implementation of a new marketing policy.

- (ii) Redimensioning of the network by increasing frequencies and building hub-type operations at Athens. Frequencies on the potentially most profitable routes will be increased and timetables reset. The operation of non-profitable routes will be discontinued.

- (iii) The entry into the fleet of new aircraft better suited to the operational needs of OA and more cost-effective. The number of aircraft in the fleet will increase from 35 in early 1998 to 40 in 2002.

On this basis, OA's yields are expected to catch up with levels to be achieved by other Southern European air carriers whose markets are, although to a lesser extent than OA, also influenced by seasonal leisure traffic.

- (49) The plan also provides for company-wide reorganisation.

- (a) The role of all non-core business activities will be redefined and gradually transformed into autonomous subsidiary companies in order to achieve better results. In the mean time, business plans for the maintenance department, ground-handling department and cargo operations will be developed.

- (b) Charter activities will be developed through a special, purpose-made company: Macedonian Airlines.

- (50) The plan is based on a major investment plan to be carried out without new capital to be drawn from the shareholder. These investments comprise:

(a) The acquisition of 12 new aircraft replacing older ones for a total cost of USD 980 million:

— Two A340s will join the fleet in September and October 1998 while two others will join the fleet in 1999. They will replace the four B747s which will leave the fleet (to be sold by 2000). An additional A340 could join the fleet subject to operational requirements during the restructuring period.

— Eight B737s will join the fleet in 2000.

(b) The move to the new Athens airport at Spata in 2001 for an estimated cost of GRD 75 billion, of which approximately GRD 35 billion is expected to be financed by the compensation granted by the Greek State for the loss of facilities at the existing Hellenikon airport which will be closed upon entry into service of Spata.

(c) Additional infrastructure investment necessary for present operations at an average cost of GRD 10 billion per year.

(51) The main indicators and ratios of the financial projections are as follows:

	1998	1999	2000	2001	2002
Financial indicators					
Turnover (GRD million)	324 234	329 071	344 829	359 057	380 626
Operating result after interest (GRD million)	14 610	21 294	9 622	1 644	8 470
Profit before tax (GRD million)	5 120	20 914	22 587	2 697	6 590
Long-term debt (GRD million)	59 501	123 993	191 542	171 625	151 708
Operational indicators					
Average stage length (km)	1 014	1 053	1 087	1 097	1 110
Load factors	66,3 %	64,4 %	61,8 %	62,3 %	64,3 %
Yields (GRD/RPK ⁽¹⁾) – 1998 prices	100	106,0	110,4	107,2	106,1
Number of employees (FTEs)	8 875	8 467	8 256	8 078	8 032
Total number of aircraft	35	37	40	40	40
Average network capacity	395 595	365 717	357 409	378 745	386 329

⁽¹⁾ PKM: Revenue passenger per kilometre.

	1998	1999	2000	2001	2002
Financial ratios					
<u>Operating result</u> Turnover	4,5 %	6,5 %	2,8 %	0,5 %	2,2 %
Gearing	2,22	2,42	2,76	2,57	2,34
Productivity ratios					
<u>ASKs ⁽¹⁾</u> Number of employees	1 560 092	1 598 148	1 731 631	1 875 440	1 923 950
<u>Staff expenditure</u> ASKs	8,46	8,30	7,86	7,54	7,64
<u>Cockpit crew expenditure</u> ASKs	1,38	1,38	1,31	1,27	1,29
<u>Cabin crew expenditure</u> ASKs	1,43	1,43	1,39	1,37	1,40
Costs ratios					
<u>Aviation operating costs</u> ASKs	21,20	21,61	22,37	22,56	23,04
<u>Staff expenditure</u> Total operating costs	37,8 %	36,5 %	33,5 %	31,9 %	31,7 %
<u>Cockpit crew expenditure</u> Aviation operating costs	6,5 %	6,4 %	5,9 %	5,6 %	5,6 %
<u>Cabin crew expenditure</u> Aviation operating costs	6,8 %	6,6 %	6,2 %	6,1 %	6,1 %

⁽¹⁾ ASK: available seats per kilometre.

- (52) The above figures are based in particular on the assumption that aviation revenues will increase by 25 % over the duration of the plan (from GRD 269 billion in 1998 to GRD 337,6 billion in 2002) while ground-handling revenues will decrease by 28,2 % (from GRD 46,5 billion in 1998 to GRD 33,3 billion in 2002) as a result of the liberalisation of this activity. The operating result is expected to increase to GRD 21,2 billion in 1999. It will then decrease to GRD 1,6 billion in 2001 and stabilise at GRD 8,4 billion in 2002 as a result of the major investments to be made by OA for its move to Spata and the fleet renewal (accrued financial and operating leases expenses, interest expenses and depreciation costs). Profits before tax will therefore follow the same trend, while remaining positive throughout the duration of the revised plan.
- (53) The revised plan is supplemented by an implementation plan setting out the timing for the various measures, implementation costs and the timing and amounts of the planned benefits.
- (54) In agreement with the Greek authorities, the Commission appointed the consultant who verified the report submitted by the Greek authorities on 20 August 1997 to analyse the soundness of the revised restructuring plan. The consultant's report was submitted to the Commission on 16 July 1998.
- (55) It emerges from the report that the revised plan of OA is realistic and should allow OA to restore viability in the medium term.

(56) OA is expected to return to profitability in 1998, even though the company faced GRD 15 billion of extraordinary costs due to operational disruptions in March to April 1998. Net profits (after tax) will then rise to GRD 20,9 billion in 1999, thus reaching very satisfactory levels. Because of a substantial increase of financial expenses to be incurred by the fleet renewal programme and the decrease of ground-handling revenue consecutive to the termination of the OA monopoly, net profit (after tax) will then decrease and stabilise at GRD 3,9 billion at the end of the plan in 2002.

(57) The expected decrease in net results from 2000 implies that in order to maintain viability beyond that date, OA will have to:

— effectively sustain costs at a lower level, in particular labour costs, while maintaining the current level of activity throughout the duration of the plan and beyond. In this regard, the report of the consultant stressed that an improved management information system is required, so that the management of OA constantly receives timely analysis of total operating cost and revenues enabling it to adapt the revised plan by providing for additional measures if needed. These additional measures would have to counteract any shortfall in revenues and further reduce labour costs,

— ensure that the compensation to be granted by Greece for the loss of investment at Hellenikon airport will actually be available in time for the projected investments to be carried out at Spata airport. Otherwise, the company could be exposed to larger cash requirements.

(58) In the light of the factual information summarised above, the Commission is in a position to make a final assessment in this case.

LEGAL ASSESSMENT

VII

(59) Under the terms of Article 92(1) of the Treaty and Article 61(2) of the EEA Agreement, any aid granted by a Member State or through State resources in any form whatsoever which distorts

competition by favouring certain undertakings or the production of certain goods is incompatible with the common market and with the EEA Agreement.

(60) In this case, it is important to assess, in the light of those provisions:

(a) The aid measures granted and to be granted by Greece to OA, initially authorised by its Decision of 7 October 1994, and for which the Commission decided on 30 April 1996 to open the procedure provided for in Article 93(2) of the Treaty. These aid measures comprise:

(i) loan guarantees extended to the company until 7 October 1994 pursuant to Article 6 of Greek Law No 96/75;

(ii) new loan guarantees totalling USD 378 million for loans to be contracted before 31 December 1997 for the purchase of new aircraft;

(iii) easing of the undertaking's debt burden by GRD 427 billion;

(iv) conversion of GRD 64 billion of the undertaking's debt to equity;

(v) a capital injection of GRD 54 billion in three instalments of GRD 19, 23 and 12 billion in 1995, 1996 and 1997 respectively.

(b) The new non-notified aid measures granted by Greece to OA for which the Commission also decided on 30 April 1996 to open the procedure provided for in Article 93(2) of the Treaty as well as the additional non-notified aid measure were identified by the Commission in the course of this procedure. These measures comprise:

(i) the payment by the State of the purchase cost for military service and

- the year of previous service and of the redundancy indemnities paid to the employees accepting early retirement up to an amount of GRD 11 billion as provided pursuant to Article 2(12)(a) of Law No 2271/94
- (ii) the tax exemptions for the period 1995 to 1997 and for loan guarantees as well as the exemption from non-fiscal expenses likely to affect capital injections as likely to be involved by Article 1(1) and (i) of Law No 2271/94
- (iii) the apparent continuation, beyond the date of notification of the initial Decision to Greece, of the exemption of OA from the payment of landing and parking charges at Greek airports
- (iv) the preferential tax treatment of the redundancy indemnity granted to OA employees accepting early retirement, as provided by Article 2(4) of Law No 2271/94.
- (63) With regard to the derogation provided by Article 92(3)(c) of the Treaty in respect of aid to facilitate the development of certain economic activities where such aid does not adversely affect trading conditions to an extent contrary to the common interest, the Commission also refers to the initial Decision whereby it examined whether the criteria which allows it to consider that an aid for the restructuring of a company may be considered as compatible with the common market are met. By that Decision, the Commission considered that the compatibility of the aid with the common market was subject to the respect by Greece of 21 commitments set out in Article 1 of that same Decision. Taking into account the breach by Greece of several of these commitments as well as all the relevant additional issues pertaining to this case, the Commission has re-examined the compatibility of this aid with the common market.
- (64) For this purpose, the Commission has verified whether all the commitments of the initial Decision are now being adhered to by Greece and whether the situation as to self-handling at Greek airports reflects the assurances given by the Greek authorities in the initial Decision.

VIII

- (61) With regard to those aid measures initially authorised for which the Commission decided to open the procedure, the Commission considers that there is no doubt that they constitute State aid and that they affect trade between Member States and also distort competition within the common market. In this regard, the Commission refers to its assessment set out in the initial Decision.
- (62) The Commission considers that the derogations provided by Article 92(2) of the Treaty and Article 61(2) of the EEA Agreement as well as Article 92(3)(a) and (b) of the Treaty and Article 61(3)(a) and (b) of the EEA Agreement do not apply in the case at hand. In this regard, the Commission refers to its assessment as set out in the initial Decision. The Commission also considers that the derogation provided by Article 92(3)(c) in respect of aid intended to promote or facilitate the development of certain areas does not apply either in the case at hand. In this regard, the Commission refers to its assessment in the initial Decision.
- (65) Turning to the commitments for which the Commission identified breaches by Greece in its decision to open the procedure (Article 1(b), (c), (d), (e), (o) of the initial Decision of 7 October 1994) and in the course of the subsequent procedure (Article 1(r) of the initial Decision of 7 October 1994), the Commission, on the basis of the information and assurances given by the Greek authorities, notably by letters of 28 May, 3 and 6 July 1998, considers that all the issues involved by the respect of these commitments are resolved (issues 1 to 18).
- (66) With regard in particular to:
- (a) The cumbersome administrative procedure set out by Articles 1 to 24 of Law No 2190/94 (issue 3). The Commission considers that the application of this procedure to permanent staff is not unsuited to flexible personnel management as needs for such personnel are usually planned in advance. Conversely, the new derogating

procedure which now applies to seasonal staff provides for the required flexibility, while allowing for transparency at the same time.

(b) The conditions for transport of press publications (issue 8). Taking into account the assurances given by Greece, the Commission has verified that the new tariffs are set by OA in accordance with a normal commercial policy and allow the company to cover its costs for this activity (the new tariffs will result in an increase of the corresponding yields from GRD 25/TKT to GRD 408/TKT and break-even load factor will decrease from 110 % to 35,2 %).

(c) The settlement of the respective debts of OA and the Greek State (issue 9). the Commission considers that the payment of all Greek State debts to OA is now ensured within a reasonable time frame.

(d) The aids involved in the GRD 11 billion provided by Article 2(12)(a) of Law No 2271/94 (issue 14) and by the GRD 2,2 billion resulting from the preferential tax treatment of redundancy indemnities as provided by Article 2(4) of Law No 2271/94 (issue 16a). The Commission considers that these measures constitute State aid to OA incompatible with the common market within the meaning of Article 92(1) of the Treaty. However, given the fact that, on the one hand, Greece has unilaterally decided to reduce the amount of the remaining capital increase to be carried out for an amount equal to the nominal amount involved by this aid and that, on the other hand, OA has not benefited from the remaining amount of the capital increase, as the corresponding instalments scheduled for January 1996 and January 1997 have not yet taken place, the Commission considers that the corresponding financial benefit for OA (principal and interest) will be neutralised. On this basis, this aid will have had no effect on competition.

(e) The aid involved by Article 1(j)(b) and (i) of Law No 2271/94 (issue 15). The Commission considers that since Greece has

confirmed to the Commission that the tax exemption provided for in Article 1(j)(b) and (i) is limited to those exemptions authorised by Article 1(c) of the initial Decision, these provisions do not involve any element of aid to OA.

(f) The aid involved by the apparent continuation beyond the date of notification of the initial Decision to Greece of the exemption of OA from the payment of landing and parking charges at Greek airports (issue 16). The Commission considers that since a compensation between, on the one hand, the unpaid landing and parking charges at Greek airports by OA to the Greek Civil Aviation Authority and, on the other hand, the debts of the Greek Civil Aviation Authority to OA has taken place and since Greece has confirmed that OA will repay the outstanding amount to the Greek Civil Aviation Authority estimated at GRD 1,29 billion (interest included) by 31 December 1998, this issue does not involve any element of aid to OA.

(67) As to the other commitments for which no breach by Greece was identified by the initial Decision (Article 1(a), (f) to (n), (p), (q), (s) to (u)), the information available to the Commission demonstrates that Greece has not failed to comply with these commitments.

(68) Consequently, the Commission considers that all the commitments set out in the initial Decision are now fully complied with by Greece.

(69) As to self-handling at Greek airports, the Commission, having taken into account the amendment of the Regulation on the procedure for the granting of licences for self-handling, the information transmitted by Greece on the applications lodged by Community carriers, and the assurances given by the Greek authorities in their letter of 3 July 1998, considers that all aspects of self-handling are effectively authorised at Greek airports in accordance with the assurances given in the initial Decision and that this issue is now resolved (issue 19).

(70) However, the Commission considers that the fact that Greece now fully observes all the

commitments does not suffice to secure the compatibility of the aid with the common market. Hence, it is also necessary to assess the effect on the common interest of the past failure of Greece to adhere to some of these commitments.

- (71) The fact that the State has continued to interfere in the management of OA beyond the strict limits of its role as a shareholder has not resulted in a transfer of OA's problems to its competitors. In addition, this behaviour has not yielded any kind of benefit to OA. On the contrary, it has had a negative impact on specific aspects of the restructuring process of the company. The same applies to the fact that the State has not given to OA the fiscal status of a public limited company comparable to that of Greek companies under ordinary law.
- (72) The fact that OA has been granted unauthorised aids for a total amount of GRD 13,2 billion could have distorted competition. However, the cumulative effect of the fact that the remaining amount of capital injection has still not been carried out to date and the fact that it will be reduced by the same amount neutralises any distorting effect of that aid on competition.
- (73) The fact that the Presidential Decree terminating the preferential and exclusive rights of OA to operate mainland domestic services did not enter into force before 31 December 1994 has not had any effect in practice on competitive conditions, since all the mainland domestic routes were already open to competition.
- (74) The fact that the Presidential Decree terminating OA's exclusive right to operate scheduled international services to non-EEA countries has not entered into force in a reasonable time does not appear to have had any effect in practice on competitive conditions since the Commission has not been informed of any refusal by the Greek authorities to grant traffic rights for the operation of such services.
- (75) The fact that some constraints for the operation of non-scheduled flights to Greece have remained after the adoption of the initial Decision is likely to have had some effects on competitive conditions. However, given that these constraints concerned only operations to the Greek islands and concerned only specific aspects of air transport, their effect on competitive conditions has been limited. The Commission considers in any case that these limited effects are offset by the fact that OA has not received the remaining amount of capital injection and has not been able to use the State guarantees.
- (76) On the basis of the above, the Commission considers that the past failure of Greece to observe some of the commitments had no effect on the common interest or had limited effects which have largely been offset by the negative consequences of the opening of the procedure for OA.
- (77) In addition, the Commission has verified whether the aid still forms part of a comprehensive restructuring programme aimed at improving the financial health of OA so that it can, within a reasonable period, become viable and competitive in the environment in which it is operating.
- (78) In this regard, the Commission notes that the Greek Government submitted on 6 July 1998 a revised restructuring programme covering the period 1998 to 2002, and thus extending the period of the restructuring beyond the term provided by the initial plan (1997). An updating of the initial plan and an extension of the restructuring period were necessary to allow OA to redress the situation with regard to the achievement of the objectives provided by the initial plan.
- (79) The revised plan does not provide for any aid measures other than those which have been authorised by the initial Decision and which have not yet been granted to OA. These include a GRD 35 billion capital increase and the State guarantees totalling USD 378 million initially scheduled to be used for loans contracted before 31 December 1997. However, as indicated by Greece in its letter of 6 July 1998, the plan only provides for a capital increase of GRD 21,8 billion in order to take into account the new

non-authorised aids granted to OA on the basis of Law No 2271/94. In addition, with regard to the State guarantees, the plan provides that the State guarantees will be used for loans to be contracted before 31 December 2000.

- (80) The revised restructuring plan redefines and intensifies the efforts to be made by OA in terms of cost control and productivity. It is based on new working conditions which already apply and will allow OA to reduce labour costs and improve personnel productivity. Hence, labour cost productivity is expected to increase by 16 % between 1998 and 2002. Yields, which are presently very low, will increase through rising fares, network restructuring, implementation of a yield management system and improvement of the product. The plan provides for intensive fleet utilisation while fleet growth will remain limited to four additional aircraft over the duration of the plan. However, as the fleet renewal programme will bring in smaller aircraft than those presently used, the growth in capacity offered by OA in the EEA (+ 12 % in available seat-kilometres) will not exceed the average market growth (20 to 22,5 %)⁽¹⁾.
- (81) As a result of the above, OA is expected to return to profitability as early as 1998. By increasing revenues and reducing costs, the plan will allow OA to maintain profitability throughout its duration and cope with the large investments required by the fleet renewal programme and the move to Spata airport.
- (82) While the acquisition of new aircraft (GRD 311 billion) will be financed by a mix of cash reserves, long-term loans and contracted with commercial banks and operating leases, the move to Spata will be financed by cash flow reserves (GRD 40 billion) and by a compensation to be granted by the State for the loss of investments at Hellenikon airport as a result of the closure of that airport estimated at GRD 35 billion). With regard to this compensation, Greece has confirmed to the Commission by letter of 3 July 1998 that the compensation will not involve any element of aid to OA as it will be granted on the basis of Greek common law and that the amount to be granted will strictly correspond to that which any company in a similar position would be entitled to receive. In addition, in order to allay the doubts of the Commission with regard to the timing of this compensation, Greece has also reassured the Commission that on the basis of the agreement to be reached between OA and the Greek State, the compensation will be paid so as to coincide with the company's expenditures incurred by its move to Spata airport.
- (83) In view of the investments totalling GRD 346 billion which are necessary for the future viability of the company in the case of the fleet renewal and mandatory in the case of the move to Spata airport, as Hellenikon airport will be closed in 2001, the Commission considers that, taking into account the new unauthorised aid granted to OA for an amount of GRD 13,2 billion, both the capital injection of 21,8 billion and the State guarantees for USD 378 million (or GRD 120 billion) are necessary to keep financial costs at a sustainable level throughout the period of the plan. During the period of the revised plan, the debt-equity ratio will remain higher than the typical industry average (it will reach 2,34 in 2002). However, this is in line with the important amount of investments which OA should be able to sustain as yields and revenue will substantially increase (turnover from GRD 324 294 billion in 1998 to GRD 380 626 billion in 2002).
- (84) On this basis, given the reasonable level of the expected profits and the evolution of debt-equity ratio, the Commission considers that the level of aid approved by the initial Decision is sufficient and not excessive.
- (85) With regard to the effective implementation of the revised plan, the Commission is reassured by the existence of a detailed implementation plan which supplements the revised plan. This implementation plan, by setting out the timing of the various measures, implementation costs and the timing and amounts of the planned benefits, reinforces the credibility of the revised plan. The Commission however notes that the

⁽¹⁾ Based on AEA estimates

management information system currently in place at OA does not allow the management of the company to constantly receive adequate information which would enable it to follow the results of the implementation and further adapt the revised plan if necessary. Therefore, the Commission intends to control on the basis of a detailed report to be submitted by Greece in this regard by 1 December at the latest, whether a fully operational and adequate management information system is effectively available to the management of OA.

- (86) On the basis of the above, the Commission considers that the revised plan constitutes adequate framework in order to allow OA to become viable by the year 2000 and sustain viability beyond that date.
- (87) Finally, the Commission recalls the existence of the 21 commitments given by Greece in the framework of the initial Decision which, as mentioned above, are now fully complied with. These commitments remain fully applicable during the period covered by the revised restructuring plan, namely until 31 December 2002, and are necessary in order to secure the compatibility of the aid with the common market within the meaning of Article 92(3)(c) of the Treaty.
- (88) However, in order to take into account the fact that the restructuring plan has been revised and extended beyond 1997 and the fact that this plan should allow OA to reach viability by the year 2000, the Commission considers that the effectiveness of the compatibility of the aid with the common market requires that the conditions resulting from the commitments are updated and precise. For this purpose:
- (a) the payment of the second instalment of GRD 7,8 billion will be subject to compliance with all the conditions imposed in order to secure the compatibility of the aid with the common market and the actual implementation of the revised restructuring plan and achievement of the expected results (in particular as regards the cost and productivity ratios set out in Part VI). The instalment will not be released if the conditions are not fulfilled and/or the objectives of the revised restructuring plan are not met;
 - (b) at least 10 weeks before the release of the second instalment planned for 15 June 1999 and by the end of the months of October 1999, March 2000 and October 2000, Greece will be required to submit a report to the Commission on the respect of all the conditions imposed to secure the compatibility of the aid and the implementation of the revised restructuring plan and achievement of the planned results (in particular as regards the cost and productivity ratios set out in Part VI);
 - (c) Greece will be required to continue to ensure that OA does not act as price leader on the scheduled routes Athens-Stockholm and Athens-London during the period covered by the revised restructuring plan. There is no need to expand the scope of this obligation to other air routes operated by OA than those expressly mentioned under Article 1(p) of the initial Decision, since the Commission has not received any substantiated evidence that the fares offered by OA on other routes raise competitive concerns. With regard to the Athens-Stockholm and Athens-London routes, the Commission notes that the commitment given under Article 1(p) has been fully observed;
 - (d) Greece will be required to continue to ensure that during the period covered by the revised restructuring plan, the number of seats offered by OA on scheduled flights in the EEA, including additional and seasonal flights and including services between continental Greece and the Greek islands, will not exceed that offered by OA in the EEA market in 1997 (7 792 243 seats), taking into account however, a possible increase proportional to the growth of the market in question. The scope of this obligation is expanded as compared to Article 1(s) of the initial Decision in order to include the capacity offered by OA on domestic services to the Greek islands, thus reflecting the fact that airports in the Greek islands are no longer exempted from the application of Regulation (EEC) No 2408/92. There is no need to expand further the scope of this obligation to services to non-EEA countries since the competitive position of OA on these routes with regard to that of other Community carriers does not

raise any problem. The number of routes operated by OA to non-EEA countries is limited as well as the offer of OA on these routes. Moreover, OA intends to discontinue the operation of some services (Boston, Montreal, Toronto and Nairobi).

- (89) Additionally, the Commission expressly confirms that the State guarantees totalling USD 378 million for loans to be contracted before 31 December 2000 can be used either for the purchase of aircraft or the leasing of aircraft as this was the intention of the initial Decision.

IX

- (90) With regard to the new non-notified aid measures on account of which the Commission decided to open the procedure as well as the additional non-notified aid measure identified in the course of this procedure, the Commission refers to the assessment made under Part VIII with regard to the respect by Greece of the commitment not to grant any further aid to OA in any form whatsoever (issues 14, 15, 16 and 16a).
- (91) On this basis, the Commission considers that the illegal aids involved by Articles 2(12)(a) and Article 4 of Law No 2271/94 are incompatible with the common market. However, since the effects of these aids on competition will be neutralised, the Commission considers that Greece should not be requested to recover these aids. Additionally, the Commission considers that the provisions of Article 1(b) and (i) of Law No 2271/94 and the issue of unpaid landing and parking fees by OA at Greek airports do not involve any element of aid to OA.

X

- (92) The considerations set out in Parts VIII and IX address the concerns expressed by the Commission in its Decision of 30 April 1996 to open the procedure and by Member States and interested third parties in the comments they have subsequently produced.
- (93) In the light of the foregoing, the Commission considers that:

- (a) the aid granted and to be granted to OA by Greece in the form of:

- (i) loan guarantees extended to the company until 7 October 1994 pursuant to Article 6 of Greek Law No 96/75;
- (ii) new loan guarantees totalling USD 378 million for loans to be contracted before 31 December 2000 for the purchase of new aircraft;
- (iii) easing of the undertaking's debt burden by GRD 427 billion;
- (iv) conversion of GRD 64 billion of the undertaking's debt to equity;
- (v) a capital injection of GRD 54 billion reduced to GRD 40,8 billion in three instalments of respectively GRD 19, 14 and 7,8 billion in 1995, 1998 and 1999 respectively

may benefit from the derogation provided for in Article 92(3)(c) of the Treaty and Article 61(3)(c) of the EEA Agreement provided that the conditions set out by the initial Decision pursuant to Article 1(a) to (u) are met as well as a number of other conditions so as to ensure that the aid does not adversely affect trading conditions to an extent contrary to the common interest;

- (b) the illegal aids granted to OA by Greece in accordance with Article 2(12)(a) and (4) of Law No 2271/94 are incompatible with the common market. Greece is not required to order the recovery of these aids,

HAS ADOPTED THIS DECISION:

Article 1

1. The restructuring aid granted, and to be granted, by Greece to Olympic Airways in the form of:

- (i) loan guarantees extended to the company until 7 October 1994 pursuant to Article 6 of Greek Law No 96/75;

- (ii) new loan guarantees totalling USD 378 million for loans to be contracted before 31 December 2000 for the purchase of new aircraft;
- (iii) easing of the undertaking's debt burden by GRD 427 billion;
- (iv) conversion of GRD 64 billion of the undertaking's debt to equity;
- (v) a capital injection of GRD 54 billion reduced to GRD 40,8 billion in three instalments of respectively GRD 19, 14 and 7,8 billion in 1995, 1998 and 1999 respectively

is deemed to be compatible with the common market and the EEA Agreement pursuant to Article 92(3)(c) of the Treaty and Article 61(3)(c) of the EEA Agreement provided that:

- (a) Greece fulfils the undertakings referred to in Article 1(a) to (u) of the Commission Decision of 7 October 1994 on the aid granted by Greece to Olympic Airways;
- (b) Greece ensures that OA does not act as price leader on the scheduled Athens-Stockholm and Athens-London routes during the period 1998 to 2002 inclusive;
- (c) Greece ensures that until 2002 inclusive, the number of seats offered by OA on scheduled flights in the EEA, including additional and seasonal flights and including services between continental Greece and the Greek islands, will not exceed that offered by OA in the EEA market in 1997 (7 792 243 seats), taking into account, however, a possible increase proportional to the growth of the market in question;
- (d) Greece ensures that by 1 December 1998, OA will have implemented a fully operational and adequate management information system. Greece shall submit by 1 December 1998 a report to the Commission on this matter.

2. The payment of the second instalment of GRD 7,8 billion shall be subject to compliance with all the conditions imposed in order to secure the compatibility of the aid with the common market and the actual implementation of the revised restructuring plan and achievement of the expected results (in particular as regards the cost and productivity ratios set out in Part VI).

At least 10 weeks before the release of the second instalment planned for 15 June 1999 and by the end of the months of October 1999, March 2000 and October 2000, Greece shall submit a report to the Commission on the fulfilment of all the conditions imposed to secure the compatibility of the aid and the implementation of the revised restructuring plan and achievement of the planned results (in particular as regards the cost and productivity ratios set out in Part VI). The second instalment shall not be released if the conditions are not complied with and/or the objectives of the revised restructuring plan are not met.

Article 2

The illegal aids granted to OA by Greece in accordance with Article 2(12)(a) and Article 4 of Law No 2271/94 are incompatible with the common market and the EEA Agreement by virtue of Article 92(1) of the Treaty and Article 62(1) of the EEA Agreement.

Article 3

This Decision is addressed to the Hellenic Republic.

Done at Brussels, 14 August 1998.

For the Commission

Karel VAN MIERT

Member of the Commission

COMMISSION RECOMMENDATION

of 3 March 1999

concerning a coordinated Community monitoring programme for 1999 to ensure compliance with maximum levels of pesticide residues in and on cereals and certain products of plant origin, including fruit and vegetables

(notified under document number C(1999) 478)

(Text with EEA relevance)

(1999/333/EC)

THE COMMISSION OF THE EUROPEAN COMMUNITIES,

Having regard to the Treaty establishing the European Community,

Having regard to Council Directive 86/362/EEC of 24 July 1986 on the fixing of maximum levels for pesticide residues in and on cereals⁽¹⁾, as last amended by Directive 97/71/EC⁽²⁾, and in particular Article 7(2)(b) thereof,

Having regard to Council Directive 90/642/EEC of 27 November 1990 on the fixing of maximum levels for pesticide residues in and on certain products of plant origin, including fruit and vegetables⁽³⁾, as last amended by Directive 97/71/EC, and in particular Article 4(2)(b) thereof,

Whereas Article 7(2)(b) of Directive 86/362/EEC and Article 4(2)(b) of Directive 90/642/EEC require the Commission to submit to the Standing Committee on plant health by 30 September each year a recommendation setting out a coordinated Community monitoring programme to ensure compliance for maximum levels of pesticide residues set out in the Annexes II to the said Directives;

Whereas the Commission should recommend a monitoring programme each year; whereas experience gained by the Commission and the Member States in establishing, carrying out and reporting on the three previous annual coordinated monitoring programmes indicates that multiannual programmes appear to be most effective and practical; whereas it appears appropriate to indicate in this recommendation the framework of future programmes;

Whereas the Commission should progressively work towards a system which would permit the estimation of actual pesticide dietary exposure, as provided for in the second paragraph of Article 7(3) of Directive 86/362/EEC and the second paragraph of Article 4(3) of Directive 90/642/EEC; whereas to facilitate examination of the feasibility of such estimations, data concerning the monitoring of residues of pesticides in a number of food products which constitute major components of European diets should be available; whereas in view of the resources available at national level for pesticide residue monitoring, Member States are only able to analyse samples of four products each year within a coordinated monitoring programme; whereas each pesticide should generally be monitored in 20 food products over a series of five-year cycles;

⁽¹⁾ OJ L 221, 7.8.1986, p. 37.

⁽²⁾ OJ L 347, 18.12.1997, p. 97.

⁽³⁾ OJ L 350, 14.12.1990, p. 71.

Whereas the residues recommended to be monitored in 1999 and 2000 will allow examination of the feasibility of using the data concerning the pesticides acephate, the benomyl group, chlorpyrifos, iprodione and methamidophos as these compounds (identified as Group A in Annex IA) have already been monitored between 1996 and 1998 for estimation of actual dietary exposure;

Whereas the residues recommended to be monitored in 1999, 2000 and 2001 will allow examination of the feasibility of using the data concerning the pesticides diazinon, metalaxyl, methidathion, thiabendazole and triazophos as these compounds (identified as Group B in Annex IA) have already been monitored between 1997 and 1998 for estimation of actual dietary exposure;

Whereas the residues recommended to be monitored in 1999, 2000, 2001 and 2002 will allow examination of the feasibility of using the data concerning the pesticides chlorpyrifos-methyl, deltamethrin, endosulfan, imazalil, lambda-cyhalothrin, the maneb group, mecarbam, permethrin, pirimiphos-methyl and vinclozolin as these compounds (identified as Group C in Annex IA) have already been monitored in 1998 for estimation of actual dietary exposure;

Whereas a systematic statistical approach to numbers of samples to be taken in the specific coordinated exercise is necessary; whereas such an approach has been set out by the commission of the Codex Alimentarius⁽¹⁾; based on a binomial probability distribution it can be calculated that examination of a total sample number of 459 gives a 99 % confidence of detecting one sample containing pesticide residues above the LOD if it is anticipated that 1 % of products of plant origin will contain residues above the LOD; whereas the total number of samples to be taken by each Member State should be apportioned on the basis of population and consumer numbers, with a minimum of 12 samples per product and per year, and indicated in Annex IB;

Whereas draft guidelines concerning quality control procedures for pesticide residue analysis, published in Annex II⁽²⁾ have been discussed by the experts of the Member States at Oreias, Portugal on 15 and 16 September 1997 and discussed and taken note of in the subgroup pesticide residues of the working group on plant health on 20 and 21 November 1997; whereas it is agreed that these draft guidelines should be implemented as far as possible by the analytical laboratories of the Member States and should be reviewed in the light of this experience;

Whereas Article 4(2)(a) of Directive 90/642/EEC requires Member States to specify the criteria applied in drawing up their national inspection programmes when sending to the Commission information on their implementation during the previous year; whereas such information should include the criteria applied in determining the numbers of samples to be taken and analyses to be carried out and the reporting levels applied and the criteria by which the reporting levels have been fixed; whereas details of accreditation under Council Directive 93/99/EEC of 29 October 1993 on the subject of additional measures concerning the official control of foodstuffs⁽³⁾ of the laboratories carrying out analyses should be indicated;

Whereas information on the results of monitoring programmes is particularly appropriate for treatment, storage and transmission by electronic/informatic methods; whereas formats have been developed for supply in diskette form to the Member States by the Commission; whereas Member States should therefore be able to send their reports to the Commission in the standard format; whereas the further development of such a standard format is most effectively undertaken by the development of guidelines by the Commission;

⁽¹⁾ Codex Alimentarius, Pesticide Residues in Foodstuffs, Rome 1994, ISBN 92-5-203271-1; Vol. 2, page 372.

⁽²⁾ Previously published as Commission document VI/7826/97.

⁽³⁾ OJ L 290, 24.11.1993, p. 14.

Whereas the measures provided for in this recommendation are in accordance with the opinion of the Standing Committee on Plant Health,

HEREBY RECOMMENDS THE MEMBER STATES TO:

1. sample and analyse for the product/pesticide residue combinations set out in Annex IA, on the basis of the number of samples of each product allocated to each Member State in Annex IB, reflecting as appropriate, national, Community and third country share of the Member State's market; for at least one pesticide possibly posing an acute risk, one of the products will be subjected to individual analysis of the items in the composite sample; two samples of an appropriate number of items will be taken, where possible the produce of a single producer; if in the first, composite sample a detectable level of the pesticide is found, the items of the second sample will be analysed individually; in 1999 this will include the combination peppers and methamidophos;
2. by 31 August 2000 report the results for the part of the specific exercise allocated for 1999 in Annex IA, together with the analytical methods used and reporting levels achieved, in accordance with the quality control procedures set out in Annex II, in a format as set out in Annex III⁽¹⁾;
3. by 31 August 1999, send to the Commission and to the Member States all the information as required by Article 7(3) of Directive 86/362/EEC and Article 4(3) of Directive 90/642/EEC concerning the 1998 monitoring exercise to ensure, at least by check sampling, compliance with maximum pesticide residue levels including:
 - 3.1. the results of their national programmes concerning pesticides listed in the Annexes II of Directives 86/362/EEC and 90/642/EEC, in relation to harmonised levels and, where these have not yet been fixed at Community level, in relation to the national levels in force;
 - 3.2. information on their laboratories' quality control procedures and, in particular, information concerning aspects of the guidelines concerning quality control procedures for pesticide residue analysis (Annex II) which they have not been able to apply or have had difficulty in applying;
 - 3.3. information on accreditation in accordance with the provisions of Article 3 of Directive 93/99/EEC (including type of accreditation, accreditation body and copy of accreditation certificate) of the laboratories carrying out the analyses.

This recommendation is addressed to the Member States.

Done at Brussels, 3 March 1999.

For the Commission

Franz FISCHLER

Member of the Commission

⁽¹⁾ Previously published as Commission document VI/1609/97.

ANNEX IA

Pesticide/product combinations to be monitored in the specific exercise set out in point 1 of the recommendation

Pesticide residue to be analysed for	Years ⁽¹⁾			
	1999	2000	2001 ⁽²⁾	2002 ⁽³⁾
GROUP A				
Acephate	(a)	(b)		
Benomyl group	(a)	(b)		
Chlorpyrifos	(a)	(b)		
Iprodione	(a)	(b)		
Methamidophos	(a)	(b)		
GROUP B				
Diazinon	(a)	(b)	(c)	
Metalaxyl	(a)	(b)	(c)	
Methidathion	(a)	(b)	(c)	
Thiabendazol	(a)	(b)	(c)	
Triazophos	(a)	(b)	(c)	
GROUP C				
Chlorpyrifos-methyl	(a)	(b)	(c)	(d)
Deltamethrin	(a)	(b)	(c)	(d)
Endosulfan	(a)	(b)	(c)	(d)
Imazalil	(a)	(b)	(c)	(d)
Lambda-cyhalothrin	(a)	(b)	(c)	(d)
Maneb group	(a)	(b)	(c)	(d)
Mecarbam	(a)	(b)	(c)	(d)
Permethrin	(a)	(b)	(c)	(d)
Pirimiphos-methyl	(a)	(b)	(c)	(d)
Vinclozolin	(a)	(b)	(c)	(d)

⁽¹⁾ Indicative for 2000, 2001 and 2002, subject to programmes which will be recommended for these years.

⁽²⁾ Group D to be specified later.

⁽³⁾ Groups D and E to be specified later.

(a) cauliflower (fresh or frozen), pepper, wheat (grain), melon (not squash or watermelon)

(b) rice (husked or polished), cucumber, head cabbage, peas (frozen or fresh, analysed without pods)

(c) apples, barley, tomatoes, lettuce

(d) pears, bananas, beans (fresh or frozen), potatoes.

ANNEX IB

Number of samples of each product to be taken by each Member State, in the coordinated Community monitoring programme for 1999

B	DK	D	EL	E	F	IRL	I	L	NL	A	P	FIN	S	UK	Total
12	12	93	12	45	66	12	65	12	17	12	12	12	12	66	460

ANNEX II

Quality control procedures for pesticide residues analysis

Introduction

1. Data on pesticide residues may be used for checking compliance with maximum residue limits (MRLs), to support enforcement actions, or to assess consumer exposure to pesticides. Analysis of residues is challenging and appropriate quality control procedures are essential to demonstrate the validity of results, without incurring unnecessary costs. Pesticide residues must be identified correctly in order to be quantified. Where knowledge of the quantity of the residue detected is important, the more stringent of the requirements in this document will apply. Less stringent alternatives are provided if the exact level of residues is relatively unimportant – for example, where it is sufficient to know that the residues comply with MRLs. A glossary of terms is appended.

Operating principles

2. Laboratory operations should meet the requirements of a recognised accreditation scheme, which complies with EN45001 or good laboratory practice (GLP).
3. The laboratory must participate in appropriate proficiency testing schemes, such as those organised by the European Commission, FAPAS and CHEK. Where unacceptable z-scores are achieved, the problems should be rectified before proceeding with further analyses for the pesticides involved.
4. For quantitative results, critical weights and volumes must be measured using equipment of accuracy within $\pm 2\%$, preferably within $\pm 1\%$. Weighing and volumetric equipment must be calibrated, maintained and used according to the manufacturer's instructions. A similar approach should be adopted for spectrometric equipment requiring calibration for wavelength, mass/charge ratio, etc. As far as practicable, analyses should encompass the components defined by MRLs.

Sampling, transport, processing and storage of samples

Sampling

5. Samples should be taken in accordance with Council Directive 79/700/EEC⁽¹⁾, or superseding legislation. Where it is impractical to take primary samples randomly within a lot, the method of sampling must be recorded.

Sample transportation

6. Samples must be transported to the laboratory in clean containers and robust packaging. Polythene bags, ventilated if appropriate, are acceptable for most samples but low-permeability bags (e.g. nylon-film) must be used for samples to be analysed for residues of fumigants. Samples of commodities pre-packed for retail sale should not be removed from their packaging before transport. Very fragile or perishable products (e.g. ripe raspberries) may have to be frozen to avoid spoilage and then transported in 'dry ice' or similar, to avoid thawing in transit. Similarly,

⁽¹⁾ OJ L 207, 15.8.1979, p. 26.

samples which are frozen at the time of collection must be transported without thawing. Samples which may be damaged by chilling (e.g. bananas) must be protected from both high and low temperatures. Samples must be identified clearly and indelibly, using labels which cannot be detached inadvertently. The use of marker pens containing organic solvents should be avoided for labelling bags containing samples to be analysed for fumigant residues. Rapid transmission to the laboratory, preferably within one day, is essential for most samples. Perishable, fragile or heavy samples, which are likely to deteriorate and/or be damaged in transit, require special care in packing. The condition of samples delivered to the laboratory should approximate to that acceptable to a discerning purchaser, otherwise samples should normally be considered unfit for analysis.

Sample processing for analysis

7. On receipt, each sample must be allocated a unique reference code by the laboratory.
8. Sample processing and sub-sampling must take place before visible deterioration of the sample occurs. Canned, dried or similarly processed samples must be analysed within the shelf-life, unless stored in deep freeze.
9. Sample processing and storage procedures should be demonstrated to have no significant affect on measured residues. Samples should be homogenised, comminuted and/or mixed before withdrawing portions for analysis. Where labile residues could otherwise be lost in this process, samples may be comminuted frozen (i.e. in the presence of 'dry ice' or similar). Where comminution, etc. is known to affect residues (e.g. of dithiocarbamates or fumigants) and practical alternative procedures are not available, the analytical portion may consist of whole units of the commodity, or segments removed from whole units. If the analytical portion thus consists of few units or segments, it is unlikely to be representative of the analytical sample and replicate portions must be analysed from the outset, to provide a better indication of the mean value. All analyses should be undertaken within the shortest time practicable, to minimise the need for sample storage. Analyses for residues of very labile or volatile pesticides may have to be completed on the day of sample receipt.

Pesticide standards, calibration solutions, etc.

Identity and purity of standards

10. Reference standards (including pesticides, their metabolites, derivatives or degradation products) and internal standards should be of known purity, where possible. On receipt, they must be dated, given a unique reference, and allocated an expiry date. The expiry date allocated may differ from that given by the supplier of the reference standard, if it is known to be appropriate to the pesticide under the storage conditions employed. Certified standards should, and uncertified standards must, be checked for identity and (approximate) purity by chromatography, infrared spectrophotometry, mass spectrometry (MS) or nuclear magnetic resonance spectrometry. As far as practicable, the reference spectrum used for this purpose should have been, or should be, rationalised as compatible with the chemical structure of analyte. After the allocated expiry date, reference standards may be retained if the purity is shown to remain acceptable but a new expiry date must be allocated. Otherwise they must be replaced. The relative purity of new and old reference standards of the same pesticide may be determined by comparing the detector responses obtained from concurrent, freshly-prepared dilutions of the old and new materials (see also point 15). Differences between old and new reference standards that are not attributable to differences in quoted purity should be investigated and the length and/or conditions of storage revised, as appropriate.

11. The chromatographic response, etc., obtained from the standard must be demonstrated as attributable to the analyte, prior to analysis of samples and preferably by MS. Where the detected species is a pyrolysis product which is also a metabolite of the pesticide⁽¹⁾, an alternative detection system must be used if the metabolite is not included in the definition of the MRL.

Storage of standards

12. Reference standards may be stored in their original containers, if suitable, but the caps must not be of rubber materials. If a standard changes visibly during storage it must not be used without checking the purity, unless this is due to simple freezing and melting. Standards of pesticides should be stored according to manufacturers' instructions (where given), to minimise degradation. Generally, storage at low temperature (refrigerator or freezer) in the dark is satisfactory. The containers must be sealed to avoid entry of water, which is especially likely during equilibration to room temperature.

Preparation, use and storage of analyte standard solutions, suspensions, etc.

13. Preparation of pesticide solutions (or solid dilutions) requires careful attention to detail. The identity and mass (or volume, for highly volatile compounds) of the reference standard, the identity of the solvent (or other diluent) employed, and the calibrated volumes of flasks and pipettes used, must be recorded. Amorphous solid compounds should be homogenised before removing a portion for weighing. Initial (stock) and subsequent (working) dilutions should be uniquely identified, permanently labelled and the concentrations corrected for the purity of the reference standard (where this is known with certainty). Individual aliquots of solutions used for calibration need not be uniquely identified but their origin and method of preparation must be recorded.
14. The pesticide must not react with, and should have adequate solubility in the solvents used to prepare solutions. The solvents must be appropriate to the method of analysis and be compatible with the determination system used. Adsorption onto containers, particularly of ionic pesticides, must be avoided by addition of acid, silanisation of glassware, or use of plastic containers, as appropriate, but such measures must not lead to interference with the subsequent detection of the pesticide. Not less than about 10 mg of the pesticide reference standard should be weighed, directly into a volumetric flask if practicable. Alternatively, the pesticide may be weighed into a pre-weighed (or tared) vessel and quantitatively transferred by rinsing with solvent to a volumetric flask. Volatile liquid pesticides should be dispensed by weight or volume (if the density is known) directly into a less volatile solvent in a volumetric flask. Gaseous fumigants may be dispensed by bubbling into solvent and weighing the mass transferred, or by preparing gaseous dilutions (e.g. with a gas-tight syringe). In the latter case, the mixture must not contact reactive metals.
15. Pesticide solutions (or solid phase dilutions) must be allocated an expiry date, after which they should normally be discarded. Newly prepared stock solutions should be diluted (in a matrix extract, if appropriate) and compared with those to be discarded. If the mean response of the detector to the new solution differs by more than $\pm 5\%$ from the old one⁽²⁾, the new solution should be checked for accuracy against a further newly prepared one. The number of determinations required for this comparison is dependent upon the precision of the detection system used. If the response from the old stock standard is confirmed as $> 5\%$ lower than the new standard, the storage period for solutions must be shortened or the storage conditions improved. If the responses from old and the new stock standards do not differ significantly, a longer storage period may be considered. Aqueous suspensions of dithiocarbamates and solutions

⁽¹⁾ For example, 4,4'-dichlorobenzophenone from dicofol, tetrahydrophthalimide from captan and captafol, phthalimide from folpet, 2-chlorobenzonitrile from clofentazine.

⁽²⁾ Alternatively, a t-test of the means should not show a significant difference at the 5 % level.

(or gaseous dilutions) of highly volatile fumigant pesticides must be prepared freshly and comparison of new and old standards is inappropriate. The validity of such a standard may be checked by comparison with one that is freshly, and independently, prepared.

16. The response of some detection systems (e.g. GC, LC-MS, ELISA) to certain pesticides may be affected by the presence of co-extractives from the sample. These 'matrix effects' may be observed as increased or decreased responses, compared with those produced by simple solvent solutions of the analyte. Partition in headspace analyses and SPME is also frequently affected by components present in the samples. GC enhancement or suppression effects may reflect increased or decreased transmission efficiency of the pesticide through the injector, compared with that in solvent only. Effects on MS response may be produced by co-eluting matrix components influencing the efficiency of ionisation or ion collection. The presence, or absence, of such effects may be demonstrated by comparing detector response to the analyte in a simple solvent solution with that obtained from the matrix-matched equivalent. Matrix effects can be very variable and unpredictable in occurrence and an initial demonstration of a measurable effect, or none, does not indicate that this situation will not change subsequently. More reliable calibration may be obtained in such cases if the calibration solutions are matrix-matched. The 'matrix concentration' employed should be consistent for all analyses in a batch. Samples known not to contain detectable residues or interfering compounds (i.e. 'blanks') may be used to prepare extracts for matrix-matched calibration solutions, etc. The blank extracts required for this may be prepared most conveniently during the extraction of batches of samples. These blank extracts may also be analysed without addition of pesticides, to demonstrate whether contamination has occurred during extraction and clean-up, and whether detector responses to matrix components interfere with analyte determination. Calibration solutions that are matrix-matched and/or that are of mixed pesticides may be less stable than solutions of individual pesticides in pure solvent.
17. Solutions should not be exposed to direct sunlight and should be stored at low temperature in the dark, in a refrigerator or freezer, sealed to avoid loss of solvent or entry of water. Solutions removed from low temperature storage should be equilibrated to room temperature and remixed before use.
18. Unless calibration solutions and extracts are internally standardised, unmeasured losses of the solvent by evaporation are unacceptable. Solvent losses from small volumes are difficult to monitor and, in the absence of an internal standard, great care is required to avoid evaporation. Where an internal standard is used, evaporation losses should also be minimised, to avoid influencing matrix effects (see point 16). Septum closures are particularly prone to evaporation losses (in addition to being a source of contamination) and should be replaced as soon as practicable after piercing, if extracts in vials are to be retained.

Extraction and concentration

Extraction conditions and efficiency

19. Analytical portions should be disintegrated thoroughly before or during extraction, to maximise extraction efficiency, except where it has been demonstrated that the nature of the process (e.g. supercritical fluid extraction, SFE, of certain sample types) renders disintegration unnecessary. Over-heating during extraction must be avoided to minimise solvent or pesticide losses. Temperature, pH, etc. must be controlled if they are known to affect extraction efficiency and/or pesticide stability.
20. Where total extraction of the residue from the analytical portion is not intended, with only an aliquot of the extract removed from the extraction mixture, the volume of solvent added initially should be measured to within $\pm 1\%$. Solvent evaporation prior to removing the aliquot must be avoided or measured (by weight or by internal standard addition). Where solvent loss exceeding 1 % may occur with this type of extraction, the loss should be measured routinely.

Extract concentration and dilution to volume

21. Great care is required where extracts are to be evaporated to dryness, as trace quantities of many pesticides may be lost from surfaces in this way. A small quantity of a high boiling point solvent may be used as a 'keeper' and the evaporation temperature should be as low as practical. Frothing and vigorous boiling of extracts, or dispersion of droplets, must be avoided. A stream of dry nitrogen or centrifugal evaporation is generally preferable to the use of an air stream for small-scale evaporation, as air is more likely to lead to oxidation or to introduce water and other contaminants.
22. Where extracts are to be made up to a specified volume, accurately calibrated vessels of not less than 1 ml capacity should be used. Where dried extracts are dissolved in a fixed volume of solvent delivered from a syringe, or similar, the solvent should have a boiling point high enough to avoid further evaporation. Where the final solvent volume is not measured directly, a fixed mass of internal standard should be added to enable measurement of the volume, particularly for volumes less than 1 ml.
23. The stability of pesticides in extracts can vary greatly according to the pesticide and the nature of the extract. Although storage of extracts in a refrigerator or freezer may be helpful, the loss during a day at the temperature of an autosampler rack mounted on a GC may equal that occurring during a month's storage in deep freeze. Pesticide stability in extracts should be investigated during method validation.

Contamination and interference*Contamination*

24. Samples must be separated from each other, and from other sources of potential contamination, during transit to, and storage at the laboratory. This is particularly important with surface or dusty residues, or with volatile pesticides, and samples which could bear such residues should be doubly-sealed in polythene or nylon bags and transported and processed separately. Pest control measures taken in or near the laboratory, if essential, must be limited to the use of products which will not be sought as residues.
25. Solvents (including water), reagents, filter aids, etc. should be checked for possible interference problems. Solvents used for fumigant residues analysis may be particularly problematic because solvent impurities and the pesticide may have similar volatilities and could be chemically identical to the residues.
26. Equipment and containers used for residues analysis must be free from significant interfering contaminants. Reusable volumetric equipment, such as flasks, pipettes and syringes, must be cleaned scrupulously. Separate glassware, etc. should be allocated to calibration standards and to sample extracts. Rubber and plastic items (e.g. seals, protective gloves, wash bottles), polishes and lubricants are potential sources of analytical interference. Contamination by dithiocarbamates, ethylenethiourea and diphenylamine from rubber articles or some lubricating oils is particularly problematic, because it is indistinguishable from pesticide residues.
27. Vial seals should be PTFE-lined. Extracts should be kept out of contact with seals, especially after piercing, by keeping vials upright. Vial seals must be replaced quickly after piercing, if re-analysis of the extracts is necessary. Disposable vials should not be reused.

28. Where an internal standard is used, unintended contamination of extracts or pesticide solutions with the internal standard, or vice versa, must be avoided.

Interference

29. Interference from natural constituents of samples, co-extracted during residues analysis, is frequent and must be recognised. Where the analyte occurs naturally in, or is produced from, the sample (e.g. inorganic bromide in all commodities; sulfur in soil; or carbon disulfide produced from the *Cruciferae*), low-level residues from pesticide use cannot be distinguished from natural levels. Natural occurrence of these analytes must be taken into account in planning analyses and in the interpretation of results. Not all interference produces simple, positive detector responses. Suppression or enhancement effects on gas chromatographic transmission, or on ion generation/collection efficiency in MS, may be produced by co-eluting pesticides or sample matrix components. Wherever this could occur, the response of the detection system to pesticides should be assessed, individually and with other pesticides, in pure solvent and in relevant 'blank' extracts. Reagent blanks (procedural blanks) should be analysed at method validation, and at any time thereafter that it is necessary to distinguish interference due to the matrix from that which could be introduced during analysis.

Analytical calibration and chromatographic integration

Basic requirements for acceptable calibration

30. In a batch of determinations, the calibration should derive from two or more replicate measurements of detector response at each level. In all cases, the detector responses used to quantify residue levels must be within the dynamic range of the detection system.
31. In determining the presence or absence of measurable residues in samples, residues below the lowest calibrated level (LCL, corresponding to the intended reporting limit) should be reported as '<[LCL]mg/kg', whether or not a response to the analyte is evident. Where it is considered necessary to report measurable residues that are below the LCL initially used, further determinations must be performed using a new and lower LCL.
32. Where an analysis batch includes samples with residues about, or below, the LCL, the detector response to the analyte must be qualitatively distinguishable and measurable at the LCL. Where the response to the intended LCL is inadequate, a higher calibration level which meets the criteria must be adopted as the LCL. In general, a minimum signal/noise ratio (S/N) of 3:1 is acceptable for the LCL, although this may apply to summed signals, for example with MS data. Although S/N is often expressed in terms of 'electronic' or 'detector' noise, 'chemical noise' from co-eluting interfering compounds must also be taken into account.
33. Calibration by interpolation between two levels is acceptable where the mean response factors for each level indicate linearity of response (i.e. the lower being not less than 90 % of the higher response factor). Where three or more levels are utilised, an appropriate calibration line may be fitted. The calibration line should not normally be forced through the origin. Where calculations are computerised, the fit of the calibration must be inspected visually, avoiding reliance on correlation coefficients, to ensure that the fit is satisfactory in the region relevant to the residues detected. Where the difference between calibration levels is large and interpolation appears questionable, the individual levels may be used as single-point calibrations.
34. Calculation of residues or recovery data by extrapolation from the calibrated levels may introduce inaccuracies related to the degree of extrapolation. Calculation from a single calibration point is most likely to involve extrapolation and assumes a linear response, with the

intercept at the origin. Extrapolation is acceptable for calculation of results exceeding the LCL, if the sample response is within $\pm 10\%$ of the calibration response where the MRL is exceeded, or is within $\pm 50\%$ where the MRL is not exceeded. Where the level of addition for recovery corresponds to the LCL, recovery $< 100\%$ may be calculated by extrapolation, although the estimate may be inaccurate.

35. Calibration at two or more levels, with, for example, additional calibration at two times the target LCL, provides a back-up LCL if the target level is not measurable and usually allows a wider range of residue levels to be estimated more accurately. Single-level calibration may be used in screening to determine whether or not the calibration level is exceeded by residues or, alternatively, to quantify residues that are at, or close to, the calibration level. The latter application may provide more accurate results than multi-level calibration where the detector response is variable.
36. Extracts containing high-level residues may be diluted to bring them within the calibrated range but it may be necessary to adjust the 'concentration of matrix' in the calibration solutions, because the matrix effects on the response may be diminished by dilution of the matrix components present in sample extracts, etc.

Calibration in batches of determinations

37. In a sequence of determinations (e.g. chromatography), the calibration determinations must bracket the samples. That is, each sequence must begin and end with calibration. Intermediate calibrations may be required if the response of the detection system is too variable. In parallel determinations (e.g. ELISA using 96-well plates), the calibrations should be distributed to detect differences in response due to position.
38. In general, batch sizes for determination should be adjusted so that detector responses to replicate bracketing calibrations do not differ by more than 20% . Where the response differs by more than 20% , the determinations should be repeated in smaller batches. Repeat of determinations is not necessary for samples which contain residues $< \text{LCL}$, if the LCL response remains measurable throughout the batch.
39. Residues to be quantified accurately must be accompanied by appropriate calibration. Wherever practicable, the detection system should be calibrated for all analytes sought, in every batch of analyses. Where, for multi-residue screening, this would require a disproportionately large number of calibration determinations in each batch (for example, where many analytes must be determined in separate solutions, because they would otherwise interfere with one another), the detection system must be calibrated for 'reference' pesticides, as a minimum, in each batch of sample analyses. 'Reference' pesticides are defined in sub/paragraphs 39.1 and 39.2 below. The 'reference' pesticides may be combined in a single solution. The minimum acceptable frequency of calibration during screening analysis is given in Table 1. Where a particular pesticide is not calibrated in a batch of determinations, the results for that pesticide must be considered tentative.

39.1. In the following cases, *all* analytes sought must be considered as 'reference' analytes:

- (i) where an MRL has been exceeded;
- (ii) where for any other reason, the analytes sought must be quantified with demonstrable accuracy;
- (iii) where single-residue methods are employed.

39.2. In all other cases, the 'reference' analytes must include those listed below:

- (i) the pesticides likely to be detected in the samples analysed *and*

(ii) two or more pesticides most likely to give poor or variable response or recovery
and

(iii) one pesticide expected to give repeatably good response and recovery.

Category (i) may incorporate the requirements of categories (ii) and (iii).

Table 1

Minimum frequencies for calibration and recovery determination

	'Reference'pesticides	Pesticides infrequently found in the commodities analysed	Pesticides not previously found, or no longer found, in the commodities analysed
<i>Calibration</i>	Two levels, two bracketing injections (etc.) of all analytes, in every batch of determinations. Batch size should be adjusted so that bracketing calibration responses do not differ by > 20 %	A rolling programme, to include all such pesticides once per 10 determination batches or three months. Two levels, two injections of each, bracketing the batch of determinations	Once per year or survey. Two levels, two injections of each, bracketing the batch of determinations
<i>Recovery</i>	One for each pesticide in every batch of analyses/extractions	One for each pesticide, synchronised with the corresponding calibration series, as above	One for each pesticide, synchronised with the corresponding calibration series, as above

Observations:

- (a) 'Reference'pesticides are defined in subparagraphs 39.1 and 39.2 above.
- (b) Where additional pesticides are intended to be encompassed in analyses, the reference pesticides must be chosen with great care, to ensure that detector responses to the reference pesticides show that residues of the other pesticides will be detected with the claimed sensitivity.
- (c) Where calibration and recovery of a particular pesticide are not conducted in the batches, there is a risk that subsequent measurements may show that the results for the pesticide are not valid for the batches.

Matrix-matched calibration

40. Chromatographic transmission, detector response, or partition in headspace analysis, may be altered by components from the sample matrix or solvents, etc. (see point 16). In general, pesticide calibration standards should be prepared freshly in a matrix extract which provides accurate calibration (i.e.'matrix-matched'). The blank commodity used for matrix-matching may, or may not, have to be identical to the samples but the variable and unpredictable nature of matrix effects require that the use of a non-identical matrix should be re-validated at intervals. For any particular pesticide and sample, the validity of the matrix used for preparation of calibration solutions may be checked by addition of a known quantity of the pesticide to the sample extract (etc.) and comparing the increase in analyte response produced with the response produced by the supposedly equivalent matrix-matched calibration standard.
41. Care is required where the material used to prepare matrix-matched calibrations either contains the analyte or produces a detector signal which interferes with the determination of the analyte. There are several cases and each is likely to create additional uncertainty about the final result.

- 41.1. Where the analyte is naturally present in all samples and only levels much higher than those occurring naturally are important. For example, inorganic bromide in celery. A 'zero' level must be included in the calibration and the blank material should be chosen for its low level of analyte. The analyte concentration in the blank is determined from the slope and intercept ('zero' level) of the calibration curve and this value must be added to the nominal calibration levels. The blank value must not be subtracted from the level found in the samples. The 'zero' becomes equivalent to the level in the blank material and this is thus the LCL. The blank material should be made homogeneous, to ensure that the LCL remains similar from batch to batch. Results below the 'zero' level should be expressed as in point 31.
- 41.2. Where the analyte is of natural origin and detectable in all or most samples but the level is close to, or above the target LCL. For example, carbon disulfide produced from brassicas. A more specific method (for dithiocarbamates in this case) may be used; or the target LCL may be set at a substantially higher level and the results interpreted with caution.
- 41.3. Where (i) the analyte is detectable in all samples but is not naturally present. For example imazalil in certain citrus. Following rigorous confirmation that measurable residues are truly present in high frequency, a sample containing a particularly low level of the analyte should be utilised for calibration, as described in point 41.1.
- 41.4. Where the 'background' is not due to the analyte but due to an interfering natural or synthetic chemical, present in some or all samples. A more efficient clean-up or a more specific detection system should be used. Where this is not practicable and the maximum level found in 'blank' material is below the target LCL, an approach similar to that in point 41.1 may be adopted. In this case, results must be interpreted with caution and residues >LCL should be confirmed rigorously.
42. In GC analysis, both matrix-matching of calibration solutions and column/injector 'priming' are normally required. The priming effect resembles a long-lasting matrix effect but is rarely permanent and rarely eliminates matrix effects. Where required, priming should be performed immediately prior to the first series of calibration determinations in a batch of analyses.

Effects of pesticide mixtures on calibration

43. Calibration and recovery using mixed standards of pesticides is acceptable but the detection system should be checked for similarity of response to the matrix-matched pesticides, individually and in mixture. In the unusual cases where these responses differ significantly, residues of single pesticides must be quantified using individual calibration standards. In exceptional cases, multiple residues may require a specially-prepared calibration standard.

Calibration for pesticides which are mixtures of isomers, etc.

44. Where a pesticide calibration standard is a mixture of isomers, etc. detector response generally may be assumed to be similar, on a molar basis, for each component. However, enzyme assays (e.g. cholinesterase) and immuno-assays may give calibration errors if the component ratio of the standard differs significantly from that of the measured residue. An alternative detection system should be used to quantify such residues.

Calibration using derivatives or degradation products

45. Where the pesticide is detected as a degradation product or derivative, the calibration solutions should be prepared from a reference standard of that degradation product or derivative, if available.

46. Determination of pesticides as unstable derivatives (e.g. some Schiff bases), which cannot be prepared as pure standards, should be avoided.

Chromatographic integration

47. All chromatograms must be scrutinised and the baseline checked and adjusted, as required, by the analyst. Where interfering peaks are present, a consistent approach to the positioning of the baseline must be adopted for all analyses, although such peaks cannot be integrated 'correctly'. A similarly consistent approach must be adopted for the integration of tailing peaks. Peak height or peak area data may be used, whichever yields the more accurate and repeatable results (as assessed from recovery and calibration data).
48. Calibration by mixed isomer (or similar) standards may utilise summed peak areas, summed peak heights, or measurement of a single component, whichever is demonstrated to be the more accurate.

Analytical methods

Acceptability of analytical methods

49. Adequate validation of an analytical method provides guidance on its suitability for the intended purpose, although good performance in practice usually remains dependent upon the analyst. Validation information, used to support the selection of a method, should relate to an appropriate range of pesticides and sample matrices and may include: (i) the accuracy and precision (reproducibility or repeatability) achieved, preferably over an appropriate range of concentrations; (ii) the sensitivity achieved; (iii) evidence of the specificity; (iv) a test of robustness or ruggedness.
50. The analytical method normally should be capable of providing repeatable recovery (for pesticides added at levels greater than approximately five times their limits of determination) within the range 70 % to 110 %, for all compounds sought by the method, ideally with a mean recovery for each compound between 80 % to 100 %. Where the difficulty of the analysis does not permit this accuracy and precision and there is no satisfactory alternative method, this issue must be considered before taking enforcement action. Before adopting it for monitoring, the analyst's performance of the method should be assessed by means of two or more recovery determinations from each appropriate sample matrix. Where a residue is to be determined as a moiety derived from two or more components of the residue, method performance should be assessed for all components.

Methods for determination of fat or dry weight content

51. Where results are expressed on the basis of dry weight or fat content, the method used to determine the dry weight or fat content must be consistent. Ideally it should be validated against a recognised standard method.

Recovery determinations

Samples, spiking levels, inclusion in analysis batches

52. Residues to be quantified accurately must be accompanied by concurrent recovery determinations. Where practicable, recovery of all analytes sought should be determined with each batch of analyses. However, where this would require a disproportionately large number of

recovery analyses, for example where a very large number of analytes is sought using selective detectors (e.g. ECD, NPD), the minimum acceptable frequency recovery determinations for various classes of pesticides is given in Table 1. Analysis of a reference material may provide an alternative to recovery determination, providing the material contains the relevant analytes at appropriate levels and that the residues are stable in storage.

53. Pesticide recovery should be determined by addition (spiking) of the analytes to a sample of 'blank' matrix, similar to that under study. The spiking level may be 1 to 10 times the LCL, at the MRL, or at some other level relevant to the particular samples. The blank material chosen should preferably be known not to contain measurable levels of the analytes. Where the blank material contains the analyte at detectable levels (e.g. inorganic bromide) or an interfering compound, the spiking level for recovery should be ≥ 5 times the level present in the blank material. The analyte (or apparent analyte) concentration in such a blank matrix should be determined by multiple analysis. The signal from the blank should be confirmed as due to the analyte, or otherwise, as the case may be.
54. As far as practicable, the recovery of all components defined by the MRL should be determined. Where a residue is determined as a common moiety, routine recovery (see Table 1) may be determined for the component which either normally predominates in residues or is likely to provide the lowest recovery.

Acceptability of analytical performance

55. Irrespective of the levels of addition, routine recovery data may be more variable than indicated by repeatability data from validation of the method. Recovery should be monitored and corrective action must be taken when either a significant drift in the mean recovery, or an unacceptable result occurs. Care must be taken in assessing recovery at the LCL for this purpose. Recoveries which differ from the routine mean by more than two standard deviations should, and those differing by more than three standard deviations must be investigated. Although this does not automatically mean that such recoveries are unacceptable, the batch should normally be re-analysed. Generally, routine recovery within the range 60 % to 140 % may be considered acceptable (great care may be required in the interpretation of recovery where the spiking level is at or about the LOD or at the LCL). Where the mean for routine recovery approaches an extreme of this range and a recovery result is significantly beyond it, results for the batch of samples must be considered cautiously. Exceptionally, where recovery is low but consistent and the basis for this is well established (e.g. due to pesticide distribution in partition), a mean recovery below 60 % may be acceptable. However, wherever practicable, a more accurate method should be used. Where recovery for the batch is unacceptable, either acceptable recovery should be re-established and all samples in the batch re-analysed, or the results must be considered to be no more than semi-quantitative.
56. Where recovery for a pesticide is outside 70 % to 110 % for the batch, samples found to contain violative residues of that pesticide should re-analysed, to provide accurate results supported by recovery data within the 70 % to 110 % range. If recovery within this range cannot be achieved, decisions on the action to be taken must acknowledge that the residue level may not be known with good accuracy.
57. In certain cases, determination of recovery may not be possible: for example, in direct analysis of liquid samples and various SPME or headspace analyses. In direct analysis of liquids, accuracy and precision are determined by the calibration, assuming that losses of the pesticide (e.g. by adsorption) do not occur between sampling and analysis. In SPME and headspace analysis, accuracy and precision may be a function of the extent to which the analyte is equilibrated within and between the phases and, where practical, this should be demonstrated.

Proficiency testing and analysis of reference materials

58. As indicated in point 3, regular participation in relevant proficiency tests is essential, with appropriate action taken to remedy problems that become evident. In addition, previously characterised and homogeneous in-house reference materials may be analysed to help provide continuing evidence of the quality of analytical performance, if the residues present are known to be stable in storage.

Confirmation of results

Principles of confirmation

59. It is impossible to prove the complete absence of residues but results which are below the LCL, and therefore not to be reported as absolute numbers, are considered confirmed if the recovery and LCL data for the batch are acceptable. Adoption of a 'reporting limit' at the LCL avoids the high and unjustifiable cost of proving the presence, or absence, of residues at such low levels that the data are not meaningful. Where a batch of analyses did not include calibration or recovery of the particular pesticides, the corresponding data for the reference pesticides provide only indirect evidence of a satisfactory analysis. Such results cannot be considered confirmed, although the data may be adequate for some purposes.
60. Results at or above the LCL require additional support in order to be considered confirmed. Where the batch of analyses was performed without calibration for the particular pesticide, the results must be regarded as very tentative and confirmation is essential. In this case, the minimum requirement is re-analysis of the extracts, with appropriate calibration for the pesticides detected. As the pesticides involved should be detected infrequently (see Table 1) and may therefore be unusual, re-analysis of the sample with concurrent recovery determination is to be preferred.
61. Where enforcement action will be taken, or other important decisions made, on the basis of results exceeding the LCL, acceptable concurrent calibration and recovery data are essential, supported by further confirmation. The nature and extent of the further confirmation required depends upon the relative importance of the particular result and the frequency with which similar residues are found. Quality control procedures for confirmatory analysis must be rigorous.

Approaches to confirmation

62. Confirmation of the analyte detected should be quantitative and qualitative.
63. Assays based on immunochemistry, colorimetry, thin-layer chromatography or electron-capture detectors tend to require the most confirmatory support, because of their lack of specificity. Where 'selective' detectors are used with GC or LC, a second chromatographic column of significantly different polarity (or a second 'specific' detection system) provides only limited confirmatory evidence. This may be acceptable for frequent, low-level residues where a proportion of the residues is also confirmed by a more definitive technique but the use throughout of the more definitive technique is preferable.
64. Where a residue exceeds the MRL or where it should not be present in the sample, the result must be confirmed by the least equivocal method available *and* by analysis of one or more additional analytical portions. Residues in replicate portions may be quantified by either the

screening or the confirmatory technique. The number of replicate portions to be analysed should be determined by the variation in results obtained.

Confirmation by mass spectrometry

65. MS is capable of providing almost unequivocal confirmation of residues of most pesticides but the confirmatory data must comply with certain minimum requirements. Matrix-matched calibration standards should normally be used for confirmation of quantity but the reference mass spectrum should derive from the reference standard, or a solution of it in pure solvent. To avoid distortion of ion ratios, the quantity of material used for the reference spectrum must not overload the detector. Confirmation of high-level residues may be straightforward but results close to the limit of MS determination must be considered on a case-by-case basis.
66. Chromatograms of relevant ions should have peaks (minimum three scans, minimum summed S/N 3:1) with similar retention time, peak shape and response ratio as those obtained from a calibration standard, analysed in the same batch. Where chromatograms of notionally unrelated ions include peaks with a similar retention time and shape, or where this information is not available (e.g. from 'limited scanning' or selected ion monitoring), additional confirmation may be required. Where an ion-chromatogram shows evidence of significant chromatographic interference, that ion must not be relied upon to quantify or identify residues.
67. Spectra should be background-subtracted, if appropriate, but the background must be selected with care to avoid distortion of the data. Where ions unrelated to the analyte in a peak-averaged 'full-scan' spectrum (i.e. from m/z 50 to 50 mass units greater than the 'molecular ion') do not exceed a quarter of base peak intensity in electron-impact ionisation spectra, or one-tenth for all other ionisation methods, the spectrum may be accepted as sufficient evidence of identity. Where these limits are exceeded and the unrelated ions derive from chromatographically overlapping species, an alternative background may be subtracted, and/or additional evidence may be sought. Intensity ratios for principal ions should be within 80 % to 120 % of those obtained from the standard. Where an ion-chromatogram shows significant chromatographic interference that ion should not be used to determine an intensity ratio and additional supporting evidence may be required. The most abundant ion that shows no evidence of chromatographic interference should be used to quantify a residue. With electron-impact ionisation, in particular, the absence of interfering ions may be used to support identification where the analyte spectrum is very simple.
68. Ionisation by electron-impact, or by further fragmentation of selected ions (MS/MS), coupled with acquisition of full-scan spectra, generally provides the most definitive evidence of identity and quantity. Mass spectra produced by less energetic processes (e.g. chemical ionisation, atmospheric pressure ionisation) may be too simple to confirm identity without further evidence. Unless the isotope ratio of the ion(s) or the chromatographic profile of isomers of the analyte is highly characteristic, additional supporting evidence is likely to be required. This may be provided by: (i) a different chromatographic separation system; (ii) a different ionisation technique; (iii) MS/MS; (iv) the use of medium-high resolution MS; or (v) altering fragmentation by changing the 'cone voltage' in LC-MS. In using medium-high resolution MS or MS/MS, wherever possible the ions selected should be characteristic of the pesticide rather than common to many organic compounds.
69. Full-scan spectra provide the most convincing identification but sensitivity may be improved by scanning a limited mass range or by selected ion monitoring. With these techniques, the minimum requirement is for data from two ions of $m/z > 200$; or three ions of $m/z > 100$. Additional supporting evidence (see point 68) may be required in some cases and must be provided where the analyte spectrum does not permit these requirements to be met.

Confirmation in an independent laboratory

70. Where important residues cannot be confirmed locally, the confirmation may be carried out in another laboratory, if practicable.

Reporting of results*Expression of results*

71. Results should normally be expressed as defined by the MRL and in mg/kg. Samples in which residues are lower than the LCL should be reported as < (LCL) mg/kg.

Calculation of results

72. In general, residue data should not be corrected for recovery. Routine recovery enables analytical performance to be monitored and provides general guidance as to the accuracy of results. It does not necessarily establish the accuracy and uncertainty (see point 77) achieved for a particular sample. Results must not be corrected for blank values where these are due to the analyte (see point 41).
73. Where confirmed data are derived from a single analytical portion (i.e. the residue is not violative or unusual), the reported result should be that derived from the detection technique considered to be the most accurate. Generally this will be the technique providing the best specificity. Where results are obtained by two or more equally accurate techniques, the mean value may be reported.
74. Where two or more analytical portions have been analysed, the arithmetic mean of the most accurate results obtained from each portion should be reported. Where good comminution and/or mixing of samples is undertaken, the RSD of results between analytical portions should not exceed 30 % if the residue measured is significantly greater than the LOD. Close to the LOD, the variation in results may be much higher and this should be taken into account in deciding what action should be taken.
75. Where the definition of an MRL includes two or more compounds, one component often predominates in residues. Where the components are detected separately (rather than as a common moiety), the overall reporting limit for the pesticide should be the LCL of the component producing the lowest response on a molar basis. For example, if the LCL for endosulfan isomers is 0,05 mg/kg and that of the sulphate metabolite is 0,1 mg/kg, then the overall reporting limit for endosulfan should be quoted as 0,1 mg/kg. Where the reference standard contains two or more components producing similar molar responses but which differ in concentration, for example chlorfenvinphos mixed isomers, the reporting limit may apply to the component producing the largest absolute response. If this approach is adopted, the lack of a characteristic component profile supporting the identification of residues at or about the reporting limit may require the use of a more rigorous confirmation technique.

Rounding of data

76. When reporting results < 0,1 mg/kg, data should be rounded to one significant figure; results $\geq$ 0,1 mg/kg but < 10 mg/kg should be rounded to two significant figures; results $\geq$ 10 mg/kg

may be rounded to three significant figures or to a whole number. These requirements do not necessarily reflect the uncertainty associated with the data.

Quantifying the uncertainty of results

77. Measurement uncertainty is a useful quantitative indicator of the confidence that can be placed on results. Uncertainty data do not replace the need for confirmation and they are required primarily to support very important results. ISO rules for evaluating and expressing uncertainty in measurement⁽¹⁾ require identification of the potential sources of uncertainty that influence the result. This formal approach may be adopted, if required, but a simpler method may be employed, such as the use of the standard deviation of either repeatability or internal reproducibility. These values may be derived from recovery data or the analysis of reference materials. However, the uncertainty data must relate to the specific pesticide and should have been generated from the relevant matrix, at a level approximating that in the sample. It may therefore be necessary to produce uncertainty data from recoveries over a range of concentrations. Ideally, uncertainty data should be derived from replicate analysis of 5 to 10 portions of the sample and thus embrace the uncertainties of both sub-sampling and analysis. the uncertainty may be expressed as the 95 % confidence interval for the result.

Compliance decisions

78. A decision on whether or not results indicate that a residue exceeds an MRL should take into account the concentration found and the validity of measurement indicated by the corresponding quality control data. Decisions on the consequent action should be made on a case-by-case basis.
79. Where residues measured in the sample(s) taken from a lot do not exceed the MRL(s), the lot is compliant with the MRL(s).
80. Where results for the laboratory sample(s) taken from a lot exceed the MRL, a decision that the lot is non-compliant must take into account: (i) the range of results obtained from replicate laboratory samples and/or replicate analytical portions, as applicable; and (ii) the accuracy and uncertainty of analysis. In general, a non-compliance decision will require acceptable calibration, concurrent recovery determination and confirmatory data. Where the presence of a pesticide is unacceptable regardless of level, the lot is non-compliant if the residue is at or above the LCL and its identity is confirmed.
81. Where the presence of a low level of a pesticide is to initiate enforcement action, the possibility of cross-contamination having occurred before, during or after sampling must be considered.

Retention of information

82. Sample data records, laboratory notebooks, chromatograms, tables of results, disks or tapes bearing chromatographic or spectral data, etc., must be retained for scrutiny. Following submission of the report, data should be retained for five years for violative samples, or two years for non-violative samples.

⁽¹⁾ Anonymous (1993), 'Guide to the expression of uncertainty in measurement' (ISBN 92-67-10188-9). ISO, Geneva, Switzerland.

Glossary

Batch	For extraction, clean-up and similar processes, a batch is a series of samples dealt with by an analyst (or team of analysts) in parallel, usually in one day, and should incorporate at least one recovery determination. For the detection procedure, a batch is a series of determinations undertaken without a significant time break and which incorporates all relevant calibration determinations. Batches of determinations may also be referred to as 'analysis runs', 'run sequences', 'chromatography runs', etc., but with formats such as 96-well plates, a plate will form a batch. A determination batch may incorporate more than one extraction batch
Blank	(i) A sample known not to contain detectable levels of the analytes sought. An extract (or equivalent) of such a sample may be known as a matrix blank (ii) A complete analysis conducted using the solvents and reagents only, in the absence of any sample (in certain cases it may be necessary to substitute water for the sample in order to make the analysis realistic). Also known as a reagent blank or procedural blank
Bracketing	Organisation of a batch of determinations such that the detection system is calibrated immediately before and after the analysis of the samples. For example, calibrant 1, calibrant 2, sample 1 ... sample <i>n</i> , calibrant 1, calibrant 2
Calibration	Determination of the response produced from the analyte by the detection system, over the range of concentrations to be reported and at the time the samples are analysed. The solutions, etc. used for this purpose may be termed calibration solutions, calibration standards or calibration extracts. Calibration of detector response is wholly distinct from calibration of weighing and volumetric equipment, from mass calibration of mass spectrometers, and so on
CHEK	A proficiency testing scheme organised by the Inspectorate for Health Protection, Groningen, The Netherlands
ECD	Electron-capture detector
ELISA	Enzyme-linked immuno-sorbent assay
EU	European Union
FAPAS	Food analysis performance assessment scheme, a proficiency testing scheme organised by the Ministry of Agriculture, Fisheries and Food, Norwich, UK
FPD	Flame-photometric detector (may be specific to sulphur or phosphorus detection)
GC	Gas chromatography (gas-liquid chromatography)
Internal reproducibility	The repeatability of recovery of an analyte, achieved within a laboratory using the same method on several or many occasions
LC	Liquid chromatography (primarily high performance liquid chromatography, HPLC)
LCL	Lowest calibrated level. The lowest concentration of analyte with which the detection system is calibrated, in seeking to determine the presence or absence of measurable residues. It will normally form the reporting limit
Level	Usually refers to concentration (e.g. mg/kg, µg/ml) but may refer to quantity (e.g. ng, pg)
LOD	Limit of determination (or limit of quantitation)

Matrix blank	See blank
Matrix-matched calibration	See also 'calibration'. The use of calibration solutions, or headspace partitions, or SPME fibres, etc., in which all constituents (other than the analyte) are similar to, or produce the same effect on analytical response as, the equivalent solutions (etc.) produced from the samples to be analysed. The matrix blank (see 'blank', above) should be prepared making similar solvents, reagents, clean-up, etc., to those used for the analysis of the corresponding samples. In practice, the pesticide is added to a blank extract (or a blank sample for headspace analysis) for a matrix similar to that analysed. The objectives are: (i) to compensate for analyte response enhancement or suppression effects induced by sample co-extractives (ii) to provide a chromatogram for integration which has underlying interference comparable to that of the sample. The matrix used may differ from that of the samples if it is shown to achieve these objectives
MRL	Maximum residue limit
MS	Mass spectrometry
MS/MS	Tandem mass spectrometry, here taken to include MS. An MS procedure in which a particular ion from the primary ionisation process is isolated, fragmented by collision or otherwise, and the product ions separated (MS/MS or MS ²). The procedure may be carried out repetitively on a sequence of product ions (MS ⁿ), although this is not usually practical with low-level residues
NPD	Nitrogen-phosphorus detector
Priming	Preliminary deactivation of a GC column and/or injector, by injection of a suitable solution or extract immediately before starting a batch of determinations. The increase in response to the analyte, which normally occurs, is due to increased transmission. Extracts used for priming do not normally need to be from a matrix identical to that of the samples to be analysed. To avoid carry-over, it is usually preferable that priming extracts contains little or no detectable pesticide
Procedural blank	See blank
Reagent blank	See blank
Reference pesticide	A pesticide which must be incorporated into recovery and calibration determinations in each batch of analyses (paragraphs 33 to 35)
Reference material	A sample which has been characterised with respect to the content of a pesticide. Certified reference materials are normally characterised in a number of laboratories, for concentration and homogeneity of distribution of the pesticide. In-house reference materials are characterised in a single laboratory and, as far as practicable, they should be shown to be homogeneous and stable
Reference spectrum	A spectrum of absorption (e.g. UV, IR), fluorescence, ionisation products (MS), etc., derived from the analyte and which may be characteristic of it. The reference mass spectrum preferably should be produced from the reference standard (or a solution of the reference standard) by the instrument used for analysis of the samples, and similar ionisation conditions must be used
Reference standard	A relatively pure sample of an analyte (or internal standard) of known purity. Usually > 90 % purity, except for technical concentrates of certain pesticides

Reporting limit	The lowest level at which residues will be reported as absolute numbers. It may represent the practical limit of determination, or it may be above that level to limit analysis costs. It should equal the lowest calibrated level (LCL), the level below which there is no experimental evidence to prove that residues will have been detected and calibrated satisfactorily
RSD	Relative standard deviation (coefficient of variation)
SFE	Supercritical fluid extraction
Solid phase dilution	Dilution of a pesticide by distribution within a finely divided solid, such as starch powder. Normally used only for insoluble analytes such as the complex dithiocarbamates
S/N	Signal-to-noise ratio
SPME	Solid phase micro-extraction

ANNEX III

WORKING DOCUMENT

For guidance to the Member States with regard to the implementation of Commission recommendations concerning coordinated Community monitoring programmes to ensure compliance with maximum levels of pesticide residues in and on certain products of plant origin, including fruit and vegetables and the presentation of Member States' reports on national monitoring

INTRODUCTION

1. Commission recommendations on fruit and vegetable monitoring have been adopted and published since 1995 (listed at Annex 3).
- 1.2. The EFTA Surveillance Authority makes parallel recommendations and in practice Norway participates in all discussions concerning monitoring, other than the Standing Committee on Plant Health, and makes reports to the Commission.
- 1.3. The purpose of this work document is to indicate solutions to questions and confusing situations which have arisen. It is hoped that all Member States can implement the various changes in this version of the guidelines in the presentation of their reports on the 1997 monitoring (by 31 August 1998) and can definitively implement them for their reports on their 1998 monitoring.

DISTRIBUTION

2. Member States should send their monitoring reports to the Commission (DG VI, DG XXIV and Joint Research Centre) and to each of the other Member States (contact point list — Annex 1).
- 2.1. Member States should, in particular, send their reports directly by e-mail or on diskette to the Commission, following the guidance set out in this note so that the task of collating and compiling a report at Community level is facilitated.

REPORT FORMAT

3. Reports should be made in the format set out in Tables A, B, C and D of the Annex to working document VI/1609/97—rev. 5 (available on request see detailed points below).
- 3.1. Member States' reports should also be made in text/narrative. In particular, Member States should draft, if possible with a version in English, a one-page (400-500 word) summary of their reported monitoring activities during the year, which could be incorporated into a European report compiled by the Commission. The summary report should distinguish between the coordinated EC monitoring programme and national monitoring and should, in particular, contain the following information:
 - 3.1.1. the summarised statistical situation, including:
 - total number of samples (not analyses) of all food items (not to be itemised) examined,
 - total number of samples (not analyses) in which pesticide residues which were looked for were not detected,

- total number of samples (not analyses) in which one or more residues were detected below the MRL,
- total number of samples (not analyses) in which one or more residues were detected exceeding the MRL (record total and EC MRL exceedings separately);

- 3.1.2. a summary statement of the total number of residues analysed or an estimate, if appropriate;
- 3.1.3. a list of the 10 most frequently reported pesticide residues in descending order of findings;
- 3.1.4. a summary of the detailed information given about sample numbers and quality assurance (see paragraph 12).

REPORT FORMAT — DISKETTE/INFORMATIC REQUIREMENTS

- 4.1. For the coordinated Community monitoring results the information should be compiled in Excel tables.
- 4.1.1. Pesticides should be listed in English alphabetical order or in the order set out in the recommendation.

REPORTS IN TABULAR FORM

- 5. In addition to the summary report described in paragraph 3.1, reports in the form of tables as set out in the Annex should be made:
 - Table A: Summarised statistical report (all pesticide monitoring),
 - Table B: Notification of the coordinated programme (specific exercise) to the European Commission,
 - Table C: Notification of check sampling and monitoring to the European Commission,
 - Table D: Details of confirmed residues exceeding the MRL (EC-harmonised MRL only, excluding national MRLs in open positions),
 - Table E: Details of samples with multiple residues (two and more) in single samples.

EC AND NATIONAL MRLs

- 6. The Commission recommendations for coordinated monitoring programmes up to that for 1998 cover only MRLs established in Annex II to Directive 90/642/EEC; recommendations for 1999 onwards will also cover MRLs established in Annex II to Directive 86/362/EEC. Member States may set national MRLs for pesticides or products not covered by these Directives and may, of course, set national MRLs for pesticides and products which are covered but for which, at present, the position is 'open'.

REPORTING LEVELS

Reporting levels for each pesticide residue have been indicated by the Council when setting MRLs. In principle, the reporting level is the routinely achievable limit of quantification practical for the monitoring laboratories

7. Member States should make specific reports with supporting information on reporting level problems and/or highlight such cases for remedial action.

ROUTINE MONITORING — CHECK SAMPLING — SURVEILLANCE

8. Historically, national monitoring programmes have not been random as they have always sought to maximise the use of restricted resources by concentrating on known or suspect problem areas. Frequently national multiannual programmes will concentrate on certain products on a rolling basis and will always tend to be targeted in accordance with certain criteria

COMPLIANCE MONITORING — ENFORCEMENT — TARGETED

9. Article 4 of Directive 89/397/EEC also covers inspections where non-compliance is suspected. Compliance monitoring is clearly more than targeted routine monitoring and will normally be in reaction to an earlier finding of residues above the MRL; this may be a reaction within days or weeks of such a finding and/or during the following production/import season and the monitoring may involve the holding of consignments until analyses are completed.
 - 9.1. It is commonly argued that compliance monitoring is likely to result in the detection of a greater number of MRL exceedings but, of course, the deterrent nature of published compliance monitoring may result in a lower number of MRL exceedings being detected.
 - 9.2. Member States should consider what parts of their monitoring programmes constitute clearly identifiable compliance monitoring and should report these on separate Tables C and D as annexed.

EXCEEDING OF MRLs

10. Table D of the Annex requires certain information concerning each sample exceeding MRLs. In making their annual reports, Member States should clearly indicate what they have included as exceedings of MRLs. These may include:
 - cases where the analytical laboratory has certified an exceeding within the application of the quality assurance applicable to the analysis,
 - cases where official warnings have been issued to the holders of the products inspected and sampled,
 - cases where legal or administrative consequences have followed, e.g. prosecution, the levying of penalties or fines.

MULTIPLE RESIDUES

11. Table E of the Annex covers details of samples with more than two pesticide residues detected in single samples. This table responds to current concerns about multiple residue effects in seeking data on such cases, which will be passed to experts for evaluation (both toxicologically and in relation to authorisation policies). Member States should report on residues of both harmonised and, where possible, national pesticides. It is intended to pass a comprehensive dossier of multiple residue data to the Scientific Committee on Plants for guidance on any action to be taken.

QUALITY ASSURANCE

12. Information concerning quality assurance relating to the data supplied to the Commission is an essential under-pinning of the pesticide residue monitoring work and will be included in the annual European reports.
 - 12.1. Member States should report on national actions assuring quality of information supplied to the Commission; this should include, in particular, actions additional to those covered by the three elements where quality assurance actions are implemented at EC/EEA level; accreditation of laboratories, EC proficiency tests and quality control procedures for pesticide residue analysis — guidelines for residues monitoring in the European Union.
 - 12.1.1. Accreditation, in accordance with the provisions of Article 3 of Directive 93/99/EEC on the subject of additional measures concerning the official control of foodstuffs: laboratories undertaking analyses of foodstuffs for pesticide residues are required to obtain the appropriate accreditation by 1 November 1998. Commission recommendations for 1997 onwards require details of accreditation; Commission recommendations for 1999 onwards specify the detail as including 'type of accreditation, accreditation body and copy of accreditation certificate'. For 1999 onwards, the Commission will not be able to accept information from Member States' laboratories which are not accredited.
 - 12.1.2. EC proficiency tests were first conducted in 1997 and it is intended that proficiency tests will be conducted annually. Participation of laboratories in EC proficiency tests will assist them in gaining accreditation and it should be a condition of acceptability of data by Member States for submission to the Commission that the laboratory concerned has participated in such a test as well as being accredited (see 12.1.1).
 - 12.1.3. Quality control procedures for pesticide residue analysis — guidelines for residues monitoring in the European Union. These guidelines (Doc. 7826/VI/97) were developed for and discussed at the quality control workshop, held in Oeiras, Portugal in September 1997. As agreed at the working group of the Standing Committee on Plant Health (20 and 21 November 1997), Member States and Norway would aim to implement the guidelines from 1998 onwards and would report on their implementation to the Commission, in particular where difficulties have been found. It is intended to organise further quality control workshops, within the budgetary provisions available, in principle at two-yearly intervals.
-

ANNEX 1

National authorities and contact points for pesticide residue monitoring

(see EC report on 1996)

ANNEX 2

Pesticides for which MRLs are established in Annex II to Directives 86/362/EEC, 86/363/EEC and 90/642/EEC

MRLs established by Directives 93/57/EEC and 93/58/EEC (35 compounds: in force 31 December 1993)

Acephate
Chlorothalonil
Chlorpyrifos
Chlorpyrifos-methyl
Cypermethrin
Deltamethrin
Fenvalerate
Glyphosate
Imazalil
Iprodione
Permethrin
Carbendazim (*Benomyl*, Carbendazim, Thiophanate-Methyl)
CS₂ (*Maneb*, Mancozeb, Metiram, Propineb, Zineb)
Methamidophos
Procymidone
Vinclozolin
DDT
Amitrole
Atrazine
Binpacryl
Bromophos-ethyl
Captafol
Dichlorprop
Dinoseb
Dioxathion
Endrin
Ethylene dibromide
Fenchlorphos
Heptachlor
Maleic hydrazide
Methyl bromide
Paraquat
TEPP
Camphechlor (toxaphene)
2,4,5-T

MRLs established by Directives 94/29/EC and 94/30/EC (12 compounds: in force 30 June 1995)

Daminozide
Lambda-cyhalothrin
Propiconazole
Carbofuran
Carbosulfan
Benfurocarb
Furathiocarb
Cyfluthrin
Metalaxyl
Benalaxyl
Fenarimol
Etephon

MRLs established by Directives 95/38/EC and 95/39/EC (6 compounds: in force 1 July 1996)

Methidathion
Methomyl (Thiodicarb)
Amitraz
Pirimiphos-methyl
Aldicarb
Thiabendazole

MRLs established by Directives 96/32/EC and 96/33/EC (13 compounds: in force 30 April 1997)

Triforine
Endosulfan
Fentin
Phorate
Dicofol
Chlormequat
Propyzamide
Propoxur
Disulfoton
Fenbutatin oxide
Triazaphos
Diazinon
Mecarbam

ANNEX 3

Commission recommendations on pesticide residue monitoring

Commission Recommendation 95/156/EC of 8 March 1995 concerning a coordinated Community monitoring programme for 1998 to ensure compliance with maximum levels of pesticide residues in and on certain products of plant origin, including fruit and vegetables (OJ L 103, 6.5.1995, p. 38).

Commission Recommendation 96/199/EC of 1 March 1996 concerning a coordinated Community monitoring programme for 1998 to ensure compliance with maximum levels of pesticide residues in and on certain products of plant origin, including fruit and vegetables (OJ L 64, 14.3.1996, p. 18).

Commission Recommendation 96/738/EC of 2 December 1996 concerning a coordinated Community monitoring programme for 1998 to ensure compliance with maximum levels of pesticide residues in and on certain products of plant origin, including fruit and vegetables (OJ L 355, 24.12.1996, p. 54).

Commission Recommendation 97/822/EC of 3 November 1997 concerning a coordinated Community monitoring programme for 1998 to ensure compliance with maximum levels of pesticide residues in and on certain products of plant origin, including fruit and vegetables (OJ L 337, 9.12.1997, p. 14).
