Commission Decision of 29 April 2004 laying down a questionnaire to be used for annual reporting on ambient air quality assessment under Council Directives 96/62/EC and 1999/30/EC and under Directives 2000/69/EC and 2002/3/ EC of the European Parliament and of the Council (notified under document number C(2004) 1714) (Text with EEA relevance) (2004/461/EC) (repealed)

COMMISSION DECISION

of 29 April 2004

laying down a questionnaire to be used for annual reporting on ambient air quality assessment under Council Directives 96/62/EC and 1999/30/EC and under Directives 2000/69/EC and 2002/3/EC of the European Parliament and of the Council

(notified under document number C(2004) 1714)

(Text with EEA relevance)

(2004/461/EC) (repealed)

THE COMMISSION OF THE EUROPEAN COMMUNITIES,

Having regard to the Treaty establishing the European Community,

Having regard to Council Directive 96/62/EC of 27 September 1996 on ambient air quality assessment and management⁽¹⁾, and in particular Article 12(1) thereof,

Whereas:

- (1) Directive 96/62/EC establishes the framework for assessment and management of ambient air quality and provides that detailed arrangements are to be laid down for the reporting of information on air quality.
- (2) Council Directive 1999/30/EC of 22 April 1999 relating to limit values for sulphur dioxide, nitrogen dioxide and oxides of nitrogen, particulate matter and lead in ambient air⁽²⁾ lays down limit values to be met on a certain target date.
- (3) Commission Decision 2001/839/EC laying down a questionnaire to be used for annual reporting on ambient air quality assessment under Directives 96/62/EC and 1999/30/ EC⁽³⁾ provided a model on the basis of which Member States were to provide the information on air quality required under those Directives.
- (4) Directive 2000/69/EC of the European Parliament and of the Council of 16 April 2000 relating to limit values for benzene and carbon monoxide in ambient air⁽⁴⁾ lays down limit values to be met on a certain target date. Directive 2002/3/EC of the European Parliament and of the Council of 12 February 2002 relating to ozone in ambient air⁽⁵⁾ lays down target values, long-term objectives, information and alert thresholds which create certain obligations. Regular reporting by Member States is an integral element of those Directives, read in conjunction with Directive 96/62/EC and indispensable for checking compliance with those obligations.

- (5) Moreover, a number of items set out in Article 11 of Directive 96/62/EC with regard to the pollutants covered by Directives 1999/30/EC, 2002/69/EC and 2002/3/EC must be reported on an annual basis.
- (6) According to Directive 1999/30/EC, provisions on reporting under Council Directive 80/779/EEC on air quality limit values and guide values for sulphur dioxide and suspended particulates⁽⁶⁾, Council Directive 82/884/EEC of 3 December 1982 on a limit value for lead in the air⁽⁷⁾ and Council Directive 85/203/EEC of 7 March 1982 on air quality standards for nitrogen dioxide⁽⁸⁾ are repealed with effect from 19 July 2001, although the limit values under these Directives remain in force until 2005 for Directives 80/779/EEC and 82/884/EEC, and 2010 for Directive 85/203/EEC and reporting on exceedences of these limit values continues according to Article 9(6) of Directive 1999/30/EC.
- (7) In order to ensure that the required information is supplied in the correct format, Member States should be required to submit it on the basis of a standardised questionnaire.
- (8) The questionnaire laid down by Decision 2001/839/EC should be extended to cover also the annual reporting obligations resulting from Directives 2000/69/EC and 2002/3/EC, while at the same time introducing some amendments related to Directive 1999/30/EC, which are made for clarification and in order to ensure a better assessment of the reports.
- (9) Decision 2001/839/EC should be replaced in the interests of clarity.
- (10) The measures provided for in this Decision are in accordance with the opinion of the Committee instituted by Article 12 (2) of Directive 96/62/EC,

HAS ADOPTED THIS DECISION:

Article 1

Member States shall use the questionnaire set out in the Annex as a basis for forwarding the information to be provided on an annual basis in accordance with Articles 11(1) and 12(1) of Directive 96l62fEC and the following provisions:

- Articles 3(1), (3) and (4), 4(1), 5(1), (2), (4) and (5), 6, 7(1), (2) and (3), and 9(6) of Directive 1999/30/EC,
- Articles 3(1), 4, and 5(1), (2), (3) and (5) of Directive 2000/69/EC and
- Articles 3(1) and (2), 4(1) and (2), 5, 9 (1) and (3), and 10 (1)(a) and (2)(b) of Directive 2002/3/EC.

Article 2

Decision 2001/839/EC is hereby repealed.

Article 3

This Decision is addressed to the Member States.

Done at Brussels, 29 April 2004.

For the Commission Margot WALLSTRÖM Member of the Commission

ANNEX

Reporting Questionnaire

on

Council Directive 96/62/EC on ambient air quality assessment and management and Council Directive 1999/30/EC relating to limit values for sulphur dioxide, nitrogen dioxide and oxides of nitrogen, particulate matter and lead in ambient air as well as Directives 2000/69/EC relating to limit values for benzene and carbon monoxide in ambient air and 2002/3/EC relating to ozone in ambient air of the European Parliament and the Council

MEMBER STATE: ...

CONTACT ADDRESS: ...

REFERENCE YEAR: ...

COMPILATION DATE: ...

The following forms distinguish between items that are legally required to report and items that are voluntary to report for the Member State. Voluntary items are printed in italic.

Many of the forms below contain and indefinite number of rows or columns to be filled in. In the form description, the number of empty rows or columns to be filled in is then limited to three and a dashed borderline indicates that the form should be extended as needed.

In addition to the forms, which are to be filled in by the Member State, some tables are also provided. The tables provide information such as fixed codes that are not to be changed by the Member State.

Form 1	Contact body and address
Form 2	Delimitation of zones and agglomerations
Form 3	Stations and measuring methods used for assessment under 1999/30/EC and 2000/69/ EC
Form 4	Stations used for assessment of ozone, including nitrogen dioxide and nitrogen oxides in relation to ozone
Form 5	Stations and measuring methods used for the assessment of recommended volatile organic compounds
Form 6	Stations and measurement methods used for the assessment of other ozone precursor substances
Form 7	Methods used to sample and measure PM_{10} and $PM_{2,5}$ and ozone precursor substances: optional additional codes to be defined by the Member State

LIST OF FORMS

Form 8	List of zones and agglomerations where levels exceed or do not exceed limit values or limit values plus margin of tolerance
Form 9	List of zones and agglomerations where levels exceed or do not exceed target values or long term objectives for ozone
Form 10	List of zones and agglomerations where levels exceed or do not exceed upper assessment thresholds or lower assessment thresholds, including information on the application of supplementary assessment methods
Form 11	Individual exceedences of limit values and limit values plus the margin of tolerance
Form 12	Reasons for individual exceedences: optional additional codes to be defined by the Member State
Form 13	Individual exceedences of ozone thresholds
Form 14	Exceedence of ozone target values
Form 15	Annual statistics of ozone
Form 16	Annual average concentrations of ozone precursor substances
Form 17	Monitoring data on 10 minutes mean SO ₂ levels
Form 18	Monitoring data on 24hr mean PM _{2,5} levels
Form 19	Tabular results of and methods used for supplementary assessment
Form 20	List of references to supplementary assessment methods referred to in Form 19
Form 21	Exceedence of limit values for SO ₂ due to natural sources
Form 22	Natural SO ₂ sources: optional additional codes to be defined by Member State
Form 23	Exceedence of limit values of PM_{10} due to natural events
Form 24	Exceedence of limit values of PM ₁₀ due to winter sanding
Form 25	Consultations on transboundary pollution
Form 26	Exceedences of limit values laid down in Directives 80/779/EEC, 82/884/EEC and 85/203/EEC

Form 27	Reasons for exceedences of limit values laid down in Directives 80/779/EEC, 82/884/EEC and 85/203/EEC: optional additional codes to be defined by the Member State
	be defined by the Weinber Blate

LIST OF TABLES

Table 1	Methods used to sample and measure PM_{10} and $PM_{2,5}$ and ozone precursor substances: standard codes
Table 2	Reasons for individual exceedences: standard codes
Table 3	Statistical parameters to be used in concentration maps
Table 4	Natural SO ₂ sources: standard codes
Table 5	Natural events causing limit value exceedences for PM ₁₀ : standard codes

Form 1 Contact body and address

Name of the contact body			
Postal address			
Name of contact person			
Telephone of contact person			
Fax of contact person			
Email address of contact person			
Comments for clarification if needed			

Note to Form 1:

The Member State is asked to fill in the contact body, and if possible, the contact person at national level, that the Commission may approach on details regarding this questionnaire if needed.

Form 2 Delimitation of zones and agglomerations (96/62/EC Articles 5 and ll(1b))

Status: This is the original version (as it was originally adopted).

Notes to Form 2:

- (1) The Member State should give not only the zone name, but also a unique zone code.
- (2) The Member State should indicate the pollutant(s) to which the zone applies using the codes: 'S' for SO₂, 'N' for NO₂/NO_X, 'P' for PM₁₀, 'L' for lead, 'B' for benzene, 'C' for carbon monoxide and 'O' for ozone, separated by a semicolon, or 'A' if the zone applies to all these pollutants. If zones have been separately defined for health, ecosystem and vegetation protection, the Member State should use the following codes: 'SH' for SO₂ health protection, 'SE' for SO₂ ecosystem protection, 'NH' for NO₂ health protection, 'NV' for NO_x vegetation protection.
- (3) It should be indicated whether the zone is an agglomeration (code: 'ag') or not (code: 'nonag').
- (4) Optionally, the Member States may add the area and population size of the zone for further processing of the data at European level.
- (5) For further processing, the Member State is requested to fill in the zone borders in a standard format (polygons, using the geographical coordinates according to ISO

6709: geographical longitude and latitude). The Member State is requested to provide separately a map of the zones (as an electronic file or on paper) to facilitate the correct interpretation of the zone data. The Member State must provide at least either the zone borders in Form 2 or a map.

Form 3 Stations and measuring methods used for assessment under 1999/30/EC (Annex IX) and 2000/69/EC (Annex VII)

EoI statio n code	Local station code	Zone code(s)		Use for Directive				Use for / Mea method PM ₁₀ an	Directive suring code for nd PM _{2,5}	Corr fact equi us	ection or or ation sed	Functio n of station	
			S O 2	N O2	N O _x	Le ad	Benze ne	C O	PM ₁₀	PM _{2,5}	PM ₁₀	PM _{2,5}	

Notes to Form 3:

- (1) In Form 3 and other forms in this questionnaire, 'Eol station code' refers to the code that is used for the exchange of data under the Exchange of Information Decision 97/101/EC. 'Local station code' is the code used within the Member State or region.
- (2) The Member State is requested to identify in the third column the zone(s) applying to ozone in which the station is located. If more than one zone is concerned, the codes should be separated by a semicolon.
- (3) The Member State is requested to use the columns headed by 'SO₂''NO₂''NO_X', 'Lead', 'Benzene' and 'CO' for indicating whether the measurement is used for assessment under Directive 1999/30/EC or 2000/69/EC respectively, ticking with 'y' if used and leaving the cell empty if not used. It should be noted that ticking NO_X implies that the station is sited at a location where the limit value for vegetation applies. If the station is in the immediate vicinity of specific sources of lead as referred to in Annex IV to Directive 1999/30/EC, the Member State is requested to tick with 'SS' instead of 'y'.
- (4) The Member State should use the columns headed by ${}^{\circ}PM_{10}$ and ${}^{\circ}PM_{2,5}$ for indicating whether the measurement is used for assessment under Directive 1999/30/EC and indicate at the same time which measurement method is used. If the measurement is used for assessment under the Directive, the Member State should fill in the measuring method code (see Note 5); if the measurement is not used for assessment under the Directive, the cell should be left empty. For $PM_{2,5}$ levels formal assessment under Article 6 of Directive 96/62/EC is not required.
- (5) The measurement method code for PM_{10} and $PM_{2,5}$ can be indicated by one of the standard codes provided by this questionnaire (see Table 1) or a code defined by the Member State that refers to a separate list of methods described by the Member State (see Form 7). The description defined by the Member State may also be a reference to a separate document added to the questionnaire. If the measurement method has been changed during the year, the Member State is requested to fill in both method codes:

first the method that was used for the longest time in the year, followed by the other one, separated by a semicolon.

- (6) When the measurement method for PM_{10} or $PM_{2,5}$ is not the reference method, respectively the provisional reference method, set out in Directive 1999/30/EC, Annex IX, the Member State is requested to fill in the correction factor by which the measured concentrations have been multiplied to obtain the concentrations reported in this questionnaire or to fill in the corresponding correction equation. If a correction equation has been applied, a free format can be used in which the measured concentration should be denoted by 'CM' and the reported concentration by 'CR', preferably using the format CR = f(CM). If the results of the method have been demonstrated to be equivalent without the application of a correction, the Member State is requested to indicate this by entering the value '1' for the correction factor or equation.
- (7) 'Function of station' indicates whether the station is sited at a location where (a) the limit values for health, the SO_2 limit value for ecosystems and the NO_X limit value for vegetation apply (code 'HEV'), (b) only the limit values for health and the SO_2 limit value for ecosystems apply (code 'HE'), (c) only the limit value for health and the NO_X limit value for vegetation apply (code 'HE'), or (d) only the limit values for health apply (code 'H').

Form 4 Stations used for assessment of ozone, including nitrogen dioxide and nitrogen oxides in relation to ozone (2002/3/EC Annex III, IV, VI)

EoI station code	Local station code	Zone code	Type of station	Use in rel	ation to Directi	ive 2002/3/EC
				<i>O</i> ₃	NO ₂	NO _x

Notes to Form 4:

- (1) The Member State is requested to identify in the third column the zone in which the station is located.
- (2) The Member State should use the columns headed by 'O₃', 'NO₂' and 'NO_X' for indicating whether the measurement is used for assessment under Directive 2002/3/ EC, ticking with 'y' if used and leaving the cell empty if not used. The column headed by 'NO₂' indicates measurement as mentioned in 2002/3/EC, Article 9(1), the column headed by 'NO_x' indicates measurement as mentioned in 2002/3/EC, Article 9(3).
- (3) 'Type of station' is defined according to 2002/3/EC, Annex IV. The following codes should be used: 'U' for urban, 'S' for suburban, 'R' for rural and 'RB' for rural background.

Form 5 Stations and measurement methods used for the assessment of recommended volatile organic compounds (2002/3/EC Annex VI)

	Stations	
EoI station code		
Local station code		
Zone code applying to ozone		
Ethane	-	
Ethylene		
Acetylene .		
Propane		
Propene		
n-Butane		
i-Butane		
1-Butene		
trans-2-Butene		
cis-2-Butene		
1.3-Butadiene		
n-Pentane		
i-Pentane		
1-Pentene		
2-Pentene		
Isoprene		
n-Hexane		
i-Hexane		
n-Heptane		

n-Octane		
i-Octane		
Benzene		
Toluene		
Ethyl benzene		
m+p-Xylene	-	
o-Xylene		
1,2,4-Trimeth.benzene		
1,2,3-Trimeth.benzene		
1,3,5-Trimeth.benzene		
Formaldehyde		
Total non-methane hydrocarbons		

Notes to Form 5:

- (1) The Member State should indicate in Form 5 for each station and for each substance assessed under 2002/3/EC Article 9(3) the measurement method by one of the standard codes provided by this questionnaire (see Table 1) or a code defined by the Member State (Form 7).
- (2) Whereas reporting obligations of ozone precursor substances must include "appropriate volatile organic compounds", the list presented in Form 5 is only a recommendation according to Annex VI of Directive 2002/3/EC.

Form 6 Stations and measurement methods used for the assessment of other ozone precursor substances (2002/3/EC Annex VI)

		Stations	
EoI station code			
Local station code			
Zone code applying to ozone			
· ·			
•	-		

Note to Form 6:

In the leftmost column of Form 6 the Member State should indicate ozone precursor substances assessed under 2002/3/EC Article 9(3) other than those described in Form 5. The Member State should indicate in Form 6 for each station and each substance the measurement method by one of the standard codes provided by this questionnaire (see Table 1) or a code defined by the Member State (Form 7). Note (2) of Form 5 applies for Form 6 accordingly.

Method code	Description
MI	PM_{10} or $PM_{2.5}$: Beta-absorption
M2	$PM_{10} \text{ or } PM_{2.5}$: Gravimetry for PM_{10} and/or $PM_{2.5}$ - continuous measurement
M2dxxx	PM_{10} or $PM_{2.5}$: Gravimetry for PM_{10} and/or $PM_{2,5}$ — random measurement; xxx should be the number of measured days. Example: random sampling on 180 days of the year is indicated by M2dl80.
МЗ	<i>PM</i> ₁₀ or <i>PM</i> _{2.5} : Oscillating microbalance for <i>PM</i> ₁₀ and/or <i>PM</i> _{2,5}
M4	Lumped sum NMHC: automated, semi- continuous monitoring, NMHC calculated from Total HC minus methane; FID
M5	Lumped sum NMHC: automated semi-continuous monitoring, after
a DNPH: Dinitrophenylhydrazine; FID: Flame Ionis Hydroxy-methyl-piperidine; HPLC: High Pressure methane hydrocarbons; NPD: Nitrogen and Phospl	ation Detection; GC: Gas Chromatography; HC: hydrocarbons; HMP: e Liquid Chromatography; MS: Mass Spectrometer; NMHC: Non- horus Detector; UV: Ultra Violet; VOC: Volatile Organic Compounds.
b For sampling with impinger: use subcode 'IM'; act 'DI' Example: 'M10AS'.	tive sampling on sorbent: subcode 'AS'; diffusive sampling: subcode

TABLE 1 METHODS USED TO SAMPLE AND MEASURE PM₁₀, PM_{2,5} AND OZONE PRECURSOR SUBSTANCES: STANDARD CODES⁰

	chromatographic separation of NMHC from methane; FID
<i>M</i> 6	Individual VOC: automated sampling and on line analysis; cryogenic sample pre- concentration, GC/FID (MS) detection
M7	Individual VOC: whole air canister sampling; offline analysis by GC/FID (MS)
M8	Individual VOC: active solid adsorbent sampling; offline analysis by GC/FID (MS) after solvent or thermal desorption
M9	Individual VOC: diffusive solid adsorbent sampling; offline analysis by GC/FID(MS) after solvent or thermal desorption
M10subcode ^b	Formaldehyde: sampling with DNPH; off line analysis of hydrazones by HPLC with UV detection (360 nm).
M11subcode ^b	Formaldehyde: sampling with HMP; offline analysis of oxazolidine by GC-NPD
M12suhcode ^b	Formaldehyde: sampling withy bisulfite and chromotropic acid; off line analysis by spectrometry (580 nm)
a DNPH: Dinitrophenylhydrazine; FID: Flan Hydroxy-methyl-piperidine; HPLC: High I	ne Ionisation Detection; GC: Gas Chromatography; HC: hydrocarbons; HMP: Pressure Liquid Chromatography; MS: Mass Spectrometer; NMHC: Non-

Hydroxy-methyl-piperidine; HPLC: High Pressure Liquid Chromatography; MS: Mass Spectrometer; NMHC: Nonmethane hydrocarbons; NPD: Nitrogen and Phosphorus Detector; UV: Ultra Violet; VOC: Volatile Organic Compounds.

b For sampling with impinger: use subcode 'IM'; active sampling on sorbent: subcode 'AS'; diffusive sampling: subcode 'DI' Example: 'M10AS'.

Form 7 Methods used to sample and measure PM_{10} , $PM_{2,5}$ and ozone precursor substances: optional additional codes to be defined by the Member State (1999/30/EC Annex IX and 2002/3/EC Annex VI)

Method code	Description
	· · ·

Form 8 List of zones and agglomerations where levels exceed or do not exceed limit values (LV) or limit values plus margin of tolerance (LV + MOT) (96/62/EC Articles 8,9 and 11,1999/30/EC Annexes I, II, III and IV, 2000/69/EC Annexes I and II)

Form 8a List of zones in relation to limit value exceedences for SO₂

Zone code	LV for health (1hr mean)			LV for health (24hr mean)		LV for ecosystems (annual mean)		LV for ecosystems (winter mean)	
	>LV + MOT	\leq LV + MOT; >LV	≤LV	>LV	≤LV.	>LV	≤LV	>LV	≤LV
			-						

Form 8b List of zones in relation to limit value exceedences for NO₂/NOx

Zone code	LV for health (1hr mean)			LV for	health (annual mean)	LV for vegetation		
	>LV + MOT	\leq LV + MOT; >LV	≤LV	>LV + MOT	≤LV + MOT; >LV	≤LV	>LV	≤LV
		· .						

Form 8c List of zones in relation to limit value exceedences for PM_{10}

Zone code	LV (24hr mean) Stage 1		LV (annual mean) Stage 1		LV (24h Stag	r mean) ge 2	LV(annual mean) Stage 2		
	>LV + MOT	≤LV + MOT; >LV	≤LV	>LV + MOT	≤LV + MOT; >LV	≤LV	>LV	≤LV	>LV + MOT	≤LV + MOT; >LV	≤LV

Form 8d List of zones in relation to limit value exceedences for lead

Zone code		LV								
	>LV + MOT	\leq LV + MOT; >LV	≤LV	SS						

Form 8e List of zones in relation to limit value exceedences for benzene

Zone code		LV		
	>LV + MOT	\leq LV + MOT; >LV	≤LV	Art 3(2)
	•			
			2	

Form 8f List of zones in relation to limit value for carbon monoxide

Zone code		LV								
	>LV + MOT	\leq LV + MOT; >LV	·≤LV							
		,								

Notes to Form 8:

(1)	The column headings have the following meaning:
>LV + M \leq LV + M	 above the limit value plus the margin of tolerance; below or equal to the limit value plus the margin of tolerance but above the limit value;
≤LV >LV SS Art 3(2)	 below or equal to the limit value; above the limit value; due to specific sources, see Note 7. extension period granted, see Note 8.
(2)	$^{\prime}$ LV + MOT' should be read as $^{\prime}$ LV' when the margin of tolerance has decreased to 0 %. In that case the column headed by $^{\prime}$ LV + MOT; >LV' should not be used.
(3)	If the column heading describes the status of the zone, tick with 'y'.
(4)	If exceedence has been concluded from model calculations solely, tick with 'm' instead of 'y'.
(5)	For thresholds for ecosystems and vegetation, tick only when exceedence occurred in areas where these limit values apply. For zones in which no areas exist where these limit values apply, tick column ' \leq LV' by 'n'.

(6) The winter mean is defined as the period from 1 October of the year preceding the reference year to 31 March of the reference year.

(7) If the exceedence status indicated in Form 8d is solely due to exceedence in an area in the immediate vicinity of specific sources designated according to Annex IV to Directive 1999/30/EC, the Member State is requested to indicate this by ticking column 'SS' by 'y'.

(8) In Form 8e, 'LV' refers to the limit value specified in Directive 2000/69/EC Annex I. For zones for which the Commission has granted an extension period for benzene according to Article 3(2) to Directive 2000/69/EC, the Member State is requested to indicate this by ticking column 'Art3(2)' by 'y'.

Form 9 List of zones and agglomerations where levels exceed or do not exceed target values or long term objectives for ozone (2002/3/EC, Annex I)

Zone code	3	Thresholds for healt	h.	Thresholds for vegetation			
	>TV	≤TV; >LTO	≤LTO	>TV	≤TV; >LTO	≤LTO	

Notes to Form 9:

The column headings have the following meaning:

>TV ≤TV; >LTO	above the target value for ozone;below or equal to the target value but above the long term objective for
	ozone;
≤LTO	: below or equal to the long term objective for ozone.

- (1) If the column heading describes the status of the zone, tick with 'y'.
- (2) If exceedence has been concluded from model calculations solely, tick with 'm' instead of 'y'.
- (3) The status is to be assessed over 3 years for the health target value and over 5 years for the vegetation target value.

Form 10 List of zones and agglomerations where levels exceed or do not exceed upper assessment thresholds (UAT) or lower assessment thresholds (LAT), including information on the application of supplementary assessment methods (96/62/EC Article 6,1999/30/EC Article 7(3) and Annex V, 2000/69/EC Article 5(3) and Annex III, 2002/3/EC Article 9(1) and Annex VII)

Form 10a List of zones in relation to assessment threshold exceedences and supplementary assessment for SO_2

Zone code	UAT and	LAT related to h (24hr mean)	ealth LV	UAT and LAT related to ecosystems LV (winter mean)				
	>UAT	$\leq UAT; > LAT$	≤LAT	>UAT	$\leq UAT; > LAT_{.}$	≤LAT		

Form 10b List of zones in relation to assessment threshold exceedences and supplementary assessment for NO_2/NO_X

Zono oodo	UAT and LAT related to health LV (1hr mean)			UAT and L. (4	AT related to annual mean,	health LV	UAT and LAT related to vegetation LV			54
Zone code	>UAT	≤UAT; >LAT	≤LAT	>UAT	≤UAT; >LAT	≤LAT	>UAT	≤UAT; >LAT	≤LAT	SA

Form 10c List of zones in relation to assessment threshold exceedences and supplementary assessment for PM_{10}

	UAT and LAT (24hr mean)			UAT and LAT (annual mean)			
Lone code	>UAT	≤UAT; >LAT	≤LAT	>UAT	$\leq UAT; > LAT$	≤LAT	SA
		•					

Form 10d List of zones in relation to assessment threshold exceedences and supplementary assessment for lead

Zone cod	le	>UAT	$\leq UAT; > LAT$	≤LAT	SA

Form 10e List of zones in relation to assessment threshold exceedences and supplementary assessment for benzene

Zone code	>UAT	$\leq UAT; > LAT$	≤LAT	_ SA

Form 10f List of zones in relation to assessment threshold exceedences and supplementary assessment for carbon monoxide

~ .				
Zone code	>UAT	$\leq UAT; > LAT$	≤LAT	· SA

Form 10g List of zones in relation to supplementary assessment for ozone

Zone code	SA

Notes to Form 10:

(1) The column headings have the following meaning:

S T T A T	1 1 1 1 1 1 1
	· above the upper assessment threshold.
- 0/11	

- Substitution Section 2014 Se
- \leq LAT : below or equal to the lower assessment threshold;
- SA : supplementary assessment, see Note 6.
- (2) If the column heading describes the status of the zone, tick with 'y'.
- (3) If exceedence has been concluded from model calculations solely, tick with 'm' instead of 'y'.

(4) For thresholds for ecosystems, tick only when exceedence occurred in areas where the limit values for ecosystems apply.

- (5) Exceedence of UAT and LAT is judged on the basis of the reference year and the preceding four years in accordance with the specification in Annex V(II) of Directives 1999/30/EC and Annex III(II) of 2000/69/EC respectively, ity
- (6) The Member State is requested to indicate in the column 'SA' whether information from fixed measuring stations has been supplemented by information from other sources as referred to in Article 7(3) of Directive 1999/30/EC, Article 5(3) of Directive 2000/69/EC and Article 9(1) of Directive 2002/3/EC.

Form 11 Individual exceedences of limit values and limit values plus margin of tolerance (MOT) (96/62/EC Article 11(1) (a) (i) and (ii), 1999/30/EC Annexes I, II, IV and V and 2000/69/EC Annexes I and II)

Zone code	EoI station code	Month	Day of month	Hour	Level (µg/m ³)	Reason code(s)
			ų .			

Form 11a Exceedence of SO₂ limit value plus MOT for health (1hr mean)

Form 11b Exceedence of SO₂ limit value for health (24hr mean)

Zone code	EoI station code	Month	Day of month	Level (µg/m ³)	Reason code(s)
					-

Form 11c Exceedence of SO₂ limit value for ecosystems (annual mean)

Zone code	EoI station code	Level (µg/m ³)	Reason code(s)

Form 11d Exceedence of SO₂ limit value for ecosystems (winter mean)

Zone code	EoI station code	Level (µg/m ³)	Reason code(s)

Form 11e Exceedence of NO₂ limit value plus MOT for health (1hr mean)

Zone code	EoI station code	Month	Day of month	Hour	Level ($\mu g/m^3$)	Reason code(s)

Form 11f Exceedence of NO₂ limit value plus MOT for health (annual mean)

Zone code	EoI station code	Level (µg/m ³)	Reason code(s)

Form 11g Exceedence of NO_x limit value for vegetation

Zone code	EoI station code	Level (µg/m ³)	Reason code(s)

Form 11h Exceedence of PM₁₀ limit value plus MOT (stage 1; 24hr mean)

Zone code	EoI station code	Month	Day of month	Level (µg/m ³)	Reason code(s)

Form 11i Exceedence of PM₁₀ limit value plus MOT (stage 1; annual mean)

Zone code	EoI station code	Level (µg/m ³)	Reason code(s)

Form 11j Exceedence of lead limit value plus MOT

Zone code	EoI station code	Level (µg/m ³)	Reason code(s)
-			

Form 11k Exceedence of benzene lin	nit value plus MOT
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Zone code	EoI station code	Level (µg/m ³)	Reason code(s)	Article 3(2)

Form 111 Exceedence of carbon monoxide limit value plus MOT

Zone code	EoI station code	Month	Day of month	Level (µg/m ³)	Reason code(s)

Notes to Form 11:

- (1) Identifying the station by filling in the EoI station code is not mandatory, but highly recommended.
- (2) The phrase 'limit value plus MOT' should be read as 'limit value' when the margin of tolerance has decreased to 0%.
- (3) 'Month' and 'Day of month' should be indicated by its number (1-12 and 1-31 respectively). 'Hour' should be indicated as '1' for the hour between 00:00h and 01:00h etc.
- (4) All exceedences of the limit value plus the margin of tolerance at a station are reported if the total number of exceedences is above the allowed number. If the total number of exceedences at a station is lower than or equal to the allowed number, no exceedences are reported.
- (5) The reason of exceedence can be indicated by one or several standard codes provided by this questionnaire (see Table 2) or a code defined by the Member State that refers to a separate list of reasons described by the Member State (Form 12). If more than one reason is indicated, the codes should be separated by a semicolon. The description given by the Member State could also be a reference to a separate document added to the questionnaire.
- (6) For exceedences in zones for which the Commission has, according to Directive 2000/69/EC Article 3(2), granted a time-limited extension, the Member State is requested to enter 'y' in the column headed by 'Article 3(2)'.

(7) If no exceedences above the number of allowed exceedences have been observed, the Member State is requested to enter 'No exceedences' in the left cell of the first row.

|--|

Reason code	Description
SI	Heavily trafficked urban centre
<u>S2</u>	Proximity to a major road
<u>S3</u>	Local industry including power production
<i>S4</i>	Quarrying or mining activities
<u>S5</u>	Domestic heating
<u>S6</u>	Accidental emission from industrial source
<u>S7</u>	Accidental emission from non-industrial source
<u>S8</u>	Natural source(s) or natural event(s)
<u>S9</u>	Winter sanding of roads
<i>S10</i>	Transport of air pollution originating from sources outside the Member State
<u>S11</u>	Local petrol station
<u>S12</u>	Parking facility
<u>S13</u>	Benzene storage

Form 12 Reasons for individual exceedences: optional additional codes to be defined by the Member State (96/62/EC Article 11(1) (a) (i) and (ii)) and 1999/30/EC Annexes I, II, IV and V, 2000/69/EC Annexes I and II)

Reason code	Description

Form 13 Individual exceedences of ozone thresholds (2002/3/EC, Article 10(2b) and Annex III)

Form 13a Exceedence of ozone information threshold value

Zone code	EoI station code	Month	Day of month	Maximum 1-hour mean ozone concentration (µg/m ³) during exceedence period	Reason code(s)	Starting time of the exceedence period	Total number of exceedence hours	1-hour mean NO ₂ concentration (μg/m ³) during maximum ozone concentration
					-			

Form 13b Exceedence of ozone alert threshold value

Zone code	EoI station code	Month	Day of month	Maximum 1-hour mean ozone concentration (µg/m ³) during exceedence period	Reason code(s)	Starting time of the exceedence period	Total number of exceedence hours	1-hour mean NO ₂ concentration (μg/m ³) during maximum ozone concentration

Form 13c Exceedence of ozone long term objective for health protection

Zone code	EoI station code	Month	Day of month	Daily maximum 8-hour mean concentration ($\mu g/m^3$)	Reason code(s)

Notes to Form 13:

- (1) For 'Reason code(s)' see Note 5 to Form 11.
- (2) 13a and 13b: An exceedence period is a continuous period on a single calendar day during which a threshold was continuously exceeded. A period cannot include hours of more than a single calendar day. If more than one exceedence period occurs on a calendar day, each period must be reported separately.
- (3) The requirement to report NO2 measurements is restricted to a minimum of 50% of the O3 sampling point (Article 9(1) of 2003/3/EC)

Form 14 Exceedence of ozone target values (2002/3/EC, Article 10(2b) and Annex III)

Form 14a Stations where the ozone target value for human health is exceeded

Zone code	EoI station code	Number of exceedence days per calendar year averaged over three years	If a full and consecutive set of data of 3 year was not used:calendar year(s) taken into account

Form 14b Stations where the ozone target value for vegetation is exceeded

Zone code	EoI station code	AOT40 (May-July) (µg/m ³) averaged over five years	If a full and consecutive set of data of 5 year was not used: calendar years taken into account (at least 3 year)

Notes to Form 14:

- (1) The data should be consistent with the requirements in Directive 2002/3/EC, Annex I(II), Footnotes b and c. If the three or five year averages could not be determined on the basis of a full and consecutive set of annual data, each year taken into account in the calculation should be indicated in the rightmost column, separated by a semicolon from other years.
- (2) Form 14a: All exceedences of the target value at a station are reported if the total number of exceedences is above the allowed number. If the total number of exceedences at a station is lower than or equal to the allowed number, no exceedences are reported.

Zone code	EoI station code	AOT	40 for vegetation protection (μg/m ³ .h)	AOT	40 for forest protection (μg/m ³ .h)	Annual average
		Value	Number of valid data	Value	Number of valid data	

Form 15 Annual statistics of ozone (2002/3/EC, Article 10(2b) and Annex III)

Note to Form 15:

The number of valid data for AOT40 refers to the hourly data available in the relevant period (for vegetation protection between 8:00 and 20:00 from May to July, maximum 1104 hours; for forest protection between 8:00 and 20:00 from April-September, maximum 2196 hours). Form 16 Annual average concentrations of ozone precursor substances (2002/3/EC Article 10(2b) and Annex VI)

Form 16a Annual average concentrations of recommended volatile organic compounds

		Stations	
EoI station code			
Ethane			
Ethylene			
Acetylene			
Propane			
Propene			
n-Butane			
i-Butane			
1-Butene			
trans-2-Butene			
cis-2-Butene			
1.3-Butadiene			
n-Pentane			
i-Pentane			
1-Pentene			
2-Pentene			
Isoprene			
n-Hexane			
i-Hexane			
n-Heptane			
n-Octane			
i-Octane			
Benzene			
Toluene	-		
Ethyl benzene		-	

m+p-Xylene		-
o-Xylene		
1,2,4-Trimeth.benzene		
1,2,3-Trimeth.benzene		
1,3,5-Trimeth.benzene		
Formaldehyde		
Total non-methane hydrocarbons		

Form 16b Annual average concentrations of other ozone precursor substances

	Stations	
EoI station code	-	
· · · · · · · · · · · · · · · · · · ·	• -	

Notes to Form 16:

- (1) In the first line of Form 16a the Member State should report the EoI station codes and in the following lines the annual average concentration of ozone precursor substances assessed under Directive 2002/3/EC Article 9(3).
- (2) For ozone precursor substances other than those described in Form 16a and assessed under Directive 2002/3/EC Article 9(3), the Member State should fill in Form 16b following the structure of Form 16a, indicating these other substances in the first column.
- (3) Whereas reporting obligations of ozone precursor substances must include "appropriate volatile organic compounds", the list presented in Form 16a is only a recommendation according to Annex VI of Directive 2002/3/EC.
- (4) Concentrations that have been reported under the Exchange of Information Decision 97/101/EC should not be reported in Form 16.

Form 17 Monitoring data on 10 minutes mean SO₂ levels (1999/30/EC Article 3(3))

EoI station code	The number of concentrations averaged over 10 minutes which have exceeded 500 µg/m ³	The number of days within the calendar year on which such exceedences occurred	The number of the days referred to in the previous column, on which hourly concentrations of sulphur dioxide simultaneously exceeded 350 µg/m ³	The maximum concentration averaged over 10 minutes recorded (µg/m ³)	Date o the ma conce occ Month	n which aximum ntration urred Day of month

Note to Form 17:

Where it is not practicable for a Member State to record data on concentrations of sulphur dioxide averaged over 10 minutes this form does not have to be completed. Form 18 Monitoring data on 24hr mean $PM_{2.5}$ levels (1999/30/EC Article 5(2))

EoI station code	Arithmetic mean (µg/m ³)	Median (µg/m ³)	98 percentile (µg/m ³)	Maximum concentration (µg/m ³)
		-		

Form 19 Tabular results of and methods used for supplementary assessment (1999/30/EC Article 7(3) and Annex VIII(II), 2000/69/EC Article 5(3) and Annex VI(II) and 2002/3/EC Article 9(1) and Annex VII(II))

Form 19a Results of and methods used for supplementary assessment for SO₂

Zone code	A	bove LV fo	r health (1h	r mean)	A	Above LV for health (24hr mean)				Abov	e LV for e (annual m	cosystems ean)	Above LV for ecosystems (winter mean)			
	Area Population exposed		Area Population exposed		Area Ecosystem area exposed		Area		Ecosystem area exposed							
	km ²	Method	Number	Method	km ²	Method	Number	Method	km ²	Method	km ²	Method	km ²	Method	km ²	Method

Form 19b Results of and methods used for supplementary assessment for $NO_2/$ NO_X

Zone code Above LV for health (1hr mean)								Above LV for health (annual mean)							Above LV for vegetation			
Area		Road length P		Populatio	Population exposed		Area		oad length	Population exposed		Area		Vegetation area exposed				
	km ²	Method	km	Method	Number	Method	km ²	Method	km	Method	Number	Method	km ²	Method	km ²	Method		
								,										

Form 19c.1 Results of and methods used for supplementary assessment for $\ensuremath{PM_{10}}$ (Stage 1)

Zone code			Ab	ove LV (24hr me	ean)		Above LV (annual mean)						
	Area		Road length .		Population exposed		Area		R	oad length	Population exposed		
	km ²	Method	km	Method	Number	Method	km ²	Method	km Method		Number	Method	

Form 19c.2 Results of and methods used for supplementary assessment for PM_{10} (Stage 2)

Zone code		Above LV (24hr mean)			Above LV (annual mean)							
		Area	R	load length	Populatio	on exposed		Area	Ro	ad length	Populati	ion exposed
	km ²	Method	km	Method	Number	Method	km ²	Method	km	Method	Number	Method

Form 19d Results of and methods used for supplementary assessment for lead

Zone code				Above LV	r			
	Area		R	oad length	Population exposed			
	km ²	Method	km	Method	Number	Method		
		f						
						-		

Form 19e Results of and methods used for supplementary assessment for benzene

Zone code		Above LV					
	Area		R	oad length	Population exposed		
	km ²	Method	km	Method	Number	Method	

Form 19f Results of and methods used for supplementary assessment for carbon monoxide

Zone code			Above LV					
	Area		R	oad length	Population exposèd			
	km ²	Method	km	Method	Number	Method		

Form 19g Results of and methods used for supplementary assessment for ozone

Zone code		Above	TV for heal	th		Above LTO for health			Above TV for ecosystems			Above LTO for ecosystems				
		Area	Populatio	n exposed		Area	Population	n exposed		Area	Ecosyst	em area exposed		Area	Ecosyst	em area exposed
	km ²	Method	Number	Method	km ²	Method	Number	Method	km ²	Method	km ²	Method	km ²	Method	km ²	Method

Notes to Form 19:

(1) 'Method' is a code defined by the Member State that refers to a separate list of references (Form 20) on publications or reports in which the supplementary method is documented. Form 20 is part of the report to the Commission; the publications or reports referred to are not to be sent to the Commission.

(2) Form 19 can be complemented by maps showing concentration distributions. It is recommended that the Member State, if possible, compiles maps showing concentration distributions within each zone and agglomeration. It is recommended to provide concentration iso-lines of the parameters in which the air quality thresholds are expressed (see Table 3) using iso-lines at intervals of 10% of the threshold.

(3) The information should refer to the appropriate averaging period for the long term objectives (1 year), the target value for health (3 years) and the target value for vegetation (5 years).

TABLE 3 STATISTICAL PARAMETERS TO BE USED IN CONCENTRATION MAPS

Pollutant	Parameters
SO_2	99.7 percentile of 1h means; 98.9 percentile of 24h means; annual mean; winter mean
NO ₂	99.8 percentile of 1h means
NO_2/NO_X	Annual mean
<i>PM</i> ₁₀	90.1 percentile of 24h means (stage 1); 97.8 percentile of 24h means (stage 2)
<i>PM</i> ₁₀ and <i>PM</i> _{2,5}	Annual mean
Lead	Annual mean
Benzene	Annual mean
Carbon monoxide	Maximum daily 8-hour mean
Ozone	92.9 percentile of daily 8-hour means averaged over the last 3 years; maximum daily 8-hour mean in reference year; AOT40 (May to July) averaged over the last 5 years

Form 20 List of references to supplementary assessment methods referred to in Form 19 (1999/30/EC Article 7(3) and Annex VIII(II))

Method	Full reference

Form 21 Excecdence of limit values of SO₂ due to natural sources (1999/30/EC Article 3(4))

Form 21a SO₂ limit value for health (1hr mean)

Zone	EoI station code	Number of exceedences measured	Natural source code(s)	Estimated number of exceedences after subtraction of natural contribution	Reference to justification

Form 21b SO₂ limit value for health (24hr mean)

Zone	EoI station code	Number of exceedences measured	Natural source code(s)	Estimated number of exceedences after subtraction of natural contribution	Reference to justification
			u .		
	-			·	

Form 21c SO₂ limit value for ecosystems (annual mean)

Zone	EoI station code	Annual mean concentration	Natural source code(s)	Estimated annual mean concentration after subtraction of natural contribution	Reference to justification

Form 21d SO₂ limit value for ecosystems (winter mean)

Zone	EoI station code	Winter mean concentration	Natural source code(s)	Estimated annual mean concentration after subtraction of natural contribution	Reference to justification
			. *	:	
			•		

Note to Form 21:

The natural source can be indicated by one or several standard codes provided by this questionnaire (see Table 4) or a code defined by the Member State that refers to a separate list of natural sources described by the Member State (Form 22).

TABLE 4 NATURAL SO₂ SOURCES: STANDARD CODES

Natural source code	Description
Al	Volcanism inside the Member State

<u>A2</u>	Volcanism outside the Member State
В	Coastal wetlands
СІ	Natural fires inside the Member State
<i>C2</i>	Natural fires outside the Member State

Form 22 Natural SO₂ sources: optional additional codes to be defined by Member State (1999/30/EC Article 3(4))

Natural source code	Description

Form 23 Exceedence of limit values of PM₁₀ due to natural events (1999/30/EC Article 5(4))

Form 23a Contribution of natural events to exceedence of the PM_{10} limit value (stage 1; 24hr mean)

Zone	EoI station code	Number of exceedences measured	Natural event code(s)	Estimated number of exceedences after subtraction of natural contribution	Reference to justification

Form 23b Contribution of natural events to exceedence of the PM_{10} limit value (stage 1; annual mean)

Zone	EoI station code	Annual mean concentration	Natural event code(s)	Estimated annual mean concentration after subtraction of natural contribution	Reference to justification

Note to Form 23:

The natural event can be indicated by one or several standard codes provided by this questionnaire (see Table 5).

TABLE 5 NATURAL EVENTS CAUSING LIMIT VALUEEXCEEDENCES FOR PM10: STANDARD CODES

Natural event code	Description				
Al	Volcanic eruption inside the Member State				

A2	Volcanic eruption outside the Member State
B1	Seismic activity inside the Member State
<i>B2</i>	Seismic activity outside the Member State
СІ	Geothermal activity inside the Member State
C2	<i>Geothermal activity outside the Member</i> <i>State</i>
DI	Wild-land fire inside the Member State
D2	Wild-land fire outside the Member State
El	High wind event inside the Member State
<i>E2</i>	High wind event outside the Member State
FI	Atmospheric resuspension inside the Member State
<i>F2</i>	Atmospheric resuspension outside the Member State
Gl	Transport of natural particles from dry regions inside the Member State
<i>G2</i>	Transport of natural particles from dry regions outside the Member State

Form 24 Exceedence of limit values of PM_{10} due to winter sanding (1999/30/EC Article 5(5))

Form 24a Contribution of winter sanding to exceedence of the PM_{10} limit value (stage 1; 24hr mean)

Zone	EoI station code	Number of exceedences measured	Estimated number of exceedences after subtraction of winter sanding contribution	Reference to justification
			·	

Form 24b Contribution of winter sanding to exceedence of the PM₁₀ limit value (stage 1; annual mean)

Zone	EoI station code	Annual mean	Estimated annual mean concentration after subtraction of winter sanding contribution	Reference to justification

Form 25 Consultations on transboundary pollution (96/62/EC Article 8(6))

Form 25a General

Has the Member State consulted other Member States on significant air pollution	(vorp)
originating in other Member States? Please tick with 'y' if yes or 'n' if no:	(90/1)

				-	_	_	_	1																	
If yes, please:	A T	B E	C Y	C Z	D E	D K	E E	E S	FI	F R	G R	H U	IE	IT	L T	L U	L V	M T	N L	P L	P T	S E	S K	SI	U K
- tick the MS or country concerned										-															
- tick if the agenda(s) of the consultations has/have been added to this report						-													8						
- tick if the minutes of the consultations have been added to this report							T					-		-											

Form 25b Specification per Member State

Note to Form 25b:

Tick only if yes, using 'y'. Form 26 Exceedences of limit values laid down in Directives 80/779/EEC, 82/884/EEC and 85/203/EEC to be reported under 1999/30/EC Article 9(6))

Pollutant	Limit value exceeded	Monitoring method used	EoI station code	Measured value (µg/m ³)	Reason code(s)	Measures taken

Notes to Form 26:

- (1) The numerical value of the limit value exceeded should be indicated in the second column.
- (2) For SO_2 and suspended particulates it should be indicated whether the black-smoke or the gravimetric method was used.
- (3) Identifying the station is not mandatory, but highly recommended.
- (4) The reason for exceedence can be indicated by one or several standard codes provided by this questionnaire (see Table 5) or a code defined by the Member State that refers to a separate list of reasons described by the Member State (Form 27). If more than one reason is indicated, the codes should be separated by a semicolon. The description given by the Member State could also be a reference to a separate document added to the questionnaire.

Form 27 Reasons for exceedences of limit values laid down in Directives 80/779/EEC, 82/884/EEC and 85/203/EEC: optional additional codes to be defined by the Member State (1999/30/EC Article 9(6))

Reason code	Description

- (1) OJ L 296, 21.11.1996, p. 55. Directive as amended by Regulation (EC) No 1882/2003 (OJ L 284, 31.10.2003, p. 1).
- (2) OJ L 163, 29.6.1999, p.41. Directive as amended by Decision 2001/744/EC (OJ L 278, 23.10.2001, p. 35).
- **(3)** OJ L 319, 4.12.2001, p.45.
- (4) OJ L 313, 13.12.2000, p.12.
- (5) OJ L 67, 9.3.2002, p. 14.
- (6) OJ L 229, 30.8.1980, p.30.
- (7) OJ L378, 31.12.1982, p.15.
- (8) OJ L 87, 27.3.1985, p.1.