



**Economic and Social
Council**

Distr.
GENERAL

EB.AIR/1998/3/Add.1
6 October 1998

Original: ENGLISH

ECONOMIC COMMISSION FOR EUROPE

EXECUTIVE BODY FOR THE CONVENTION ON
LONG-RANGE TRANSBOUNDARY AIR POLLUTION

1998 MAJOR REVIEW OF STRATEGIES AND POLICIES FOR AIR POLLUTION ABATEMENT

Draft report prepared by the secretariat¹

Addendum

Any data provided under the heading "Yugoslavia" relate to the Federal Republic of Yugoslavia, which, in accordance with General Assembly resolutions 47/1 and 47/229 of 22 September 1992 and 5 May 1993, respectively, cannot continue automatically the membership of the former Socialist Federal Republic of Yugoslavia.

List of tables and figures

Table 1	Status of the Convention on Long-range Transboundary Air Pollution and its related Protocols
Table 2	Sulphur dioxide emissions 1980-2010
Table 3	Sulphur dioxide emissions as a percentage of 1980 emissions
Table 4	Nitrogen oxide emissions 1980-2010

Documents prepared under the auspices or at the request of the Executive Body for the Convention on Long-range Transboundary Air Pollution for GENERAL circulation should be considered provisional unless APPROVED by the Executive Body.

1 In United Nations texts, the term "ton" refers to metric tonnes (1,000 kg or 2,204 lb)

Table 5	Nitrogen oxide emissions as a percentage of 1987 emissions
Table 6	Emissions of non-methane volatile organic compounds 1980-2010
Table 7	Emissions of non-methane volatile organic compounds as a percentage of 1988 emissions
Table 8	Ammonia emissions 1980-2010
Table 9	Methane emissions 1980-2010
Table 10	Carbon monoxide emissions 1980-2010
Table 11	Carbon dioxide emissions 1980-2010
Table 12	Emissions of persistent organic pollutants
Table 13	Emissions of heavy metals
Table 14	Monitoring stations (general and pollutant-specific)
Table 15	Status of reporting on persistent organic pollutants
Table 16	Status of reporting on heavy metals
Table 17	National emission reduction targets for sulphur dioxide
Table 18	National emission reduction targets for nitrogen oxides
Table 19	National emission reduction targets for non-methane volatile organic compounds
Table 20	National emission reduction targets for carbon dioxide
Table 21	National emission reduction targets for other pollutants
Table 22	Energy consumption patterns and trends
Table 23	Ambient air quality standards relating to health effects
Table 24	Ambient air quality standards relating to ecological effects
Table 25	Fuel quality standards
Table 26	Emission standards for sulphur dioxide
Table 27	Emission standards for nitrogen oxides
Table 28	Emission standards for non-methane volatile organic compounds
Figure I	Diagram of bodies under the Convention
Figure II	Sulphur dioxide emissions 1980-2010
Figure III	Sulphur dioxide emissions as a percentage of 1980 emissions
Figure IV	Nitrogen oxide emissions 1980-2010
Figure V	Nitrogen oxide emissions as a percentage of 1987 emissions
Figure VI	Emissions of non-methane volatile organic compounds 1980-2010
Figure VII	Emissions of non-methane volatile organic compounds as a percentage of 1988 emissions
Figure VIII	Ammonia emissions 1980-2010
Figure IX	Emissions of SO ₂ , NO _x , VOC, NH ₃ , CO, CO ₂ , CH ₄ , HM and POP by source category
Figure X	Map of gridded emissions of sulphur
Figure XI	Map of gridded emissions of nitrogen oxides
Figure XII	Map of gridded emissions of NMVOC
Figure XIII	Map of gridded emissions of ammonia
Figure XIV	Map of critical loads of acidity
Figure XV	Map of critical loads of nutrient nitrogen
Figure XVI	Maps of critical loads exceedances for 1980/1990/2000/2010 (on current reduction plans)

Tables 1 to 16 and figures I to XIII will contain information drawn from EB.AIR/GE.1/1998/4. These tables and figures will appear in the final publication of the 1998 Major Review of Strategies and Policies.

TABLE 17 NATIONAL EMISSION REDUCTION TARGETS FOR SULPHUR DIOXIDE			
Party	Emissions in kilotons (base year)	Emissions in kilotons (target years)	Reduction
Armenia			
Austria	(1980)		30%(1993)
Belarus	637(1990)	480(2010)	
Belgium	(1980)		National: 70%(2000), 72%(2005), 74%(2010); electricity production (voluntary agreement): 70%(1993), 75%(1998), 80%(2003); Large combustion plants: 40%(1998), 60%(2003); Flemish Region: 56%(2002 compared to 1990)
Bulgaria	(1980)		30%(1993), 45%(2010)
Canada	National: 4 614(1980) SOMA: 3245(1980)	National: 3200(2000) 1750(2000)	SOMA: National: 30% SOMA: 46%
Croatia			
Cyprus	(unknown)		stabilization(2005)
Czech Republic	2257(1980)	1128(2000), 902(2005), 632(2010)	50%(2000), 60%(2005), 72%(2010)
Denmark	451(1980)	90(2000)	80%(2000)
Finland	584(1980)	116(2000)	80%(2000)
France	3348(1980)	868(2000), 770(2005), 737(2010)	74%(2000), 77%(2005), 78%(2010)
Germany	7494(1980)	1300(2000), 990(2005)	83%(2000), 87%(2005)
Greece	(2000)	595(2000), 580(2005), 570(2010)	0%(2000), 3%(2005), 4%(2010)
Hungary	1653(1980)	898(2000), 816(2005), 653(2010)	45%(2000), 50%(2005), 60%(2010)
Iceland			
Ireland	222(1980)	155(2000)	30%(2000)
Italy			
Latvia	(1980)		stabilization(2000)
Liechtenstein	0.4(1980)	0.1(2000)	75%(2000)
Lithuania	311(1980)	164(2000), 155(2005), 145(2010)	47%(2000), 50%(2005), 53%(2010)
Luxembourg	24(1980)	10(2000)	58%(2000)
Malta			
Netherlands	466(1980)	106(2000)	77%(2000)
Norway	142(1980)	34(2000)	76%(2000)
Poland	4100(1980)	2583(2000), 2173(2005), 1397(2010)	37%(2000), 47%(2005), 66%(2010)
Portugal			
Republic of Moldova			
Romania	(1989)		20%(2000)
Russian Federation	(1989)		38%(2000), 40%(2005)
Slovakia	843(1980), unknown(1991)	337(2000), 295(2005), 240(2010)	50%(2000 compared to 1991), 60%(2000 compared to 1980), 65%(2005), 72%(2010)
Slovenia	235(1980)	130(2000), 94(2005), 71(2010)	45%(2000), 60%(2005), 70%(2010)
Spain	3319(1980)	2143(2000)	35%(2000)
Sweden	507(1980)	100(2000)/ 80(1995)/ 67(2010)	80%(2000)
Switzerland	126(1980)		60%(unknown), 52%(2000)
The FYR of Macedonia			
Turkey			
Ukraine			
United Kingdom	4898(1980)	2449(2000), 1470(2005), 980(2010)	50%(2000), 70%(2005), 80%(2010)
United States	(1980)	minus 10m tpa(unknown)	
Yugoslavia			
European Community	25513(1980)/(1985)	9598(2000)	62%(2000 from 1980)/ 35%(2000 from 1985)

TABLE 18 NATIONAL EMISSION REDUCTION TARGETS FOR NITROGEN OXIDES			
Party	Emissions in kilotons (base year)	Emissions in kilotons (target years)	Reduction
Armenia			
Austria	(1987)/(1980-1986)/(1985)		stabilization(1994)/30%(1998)/40% (1996), 60%(2001), 70%(2006)
Belarus	285(1990)	180(2010)	stabilization(1994 compared to 1987)
Belgium	(1980)/(1980-1987)		National: stabilization (1994 and thereafter, compared to 1987)/30%(1998), Electricity production (voluntary agreement): 30%(1993), 40%(1998), 40%(2003); Large combustion plant: 30%(1998); Flemish Region 35%(2002 compared to 1990), 55%(2010 compared to 1990)
Bulgaria	(1987)		stabilization(1994)
Canada	(1987)		stabilization(1994)
Croatia			stabilization(2005)
Cyprus	(unknown)		stabilization(1994)
Czech Republic	(1987)		stabilization(1994)
Denmark	(1987)/(1980-1986)		stabilization(1994)/30%(1998)
Finland	(1987)/(1980-1986)		stabilization(1994)/30%(1998)
France	(1987)/(1980-1986)		stabilization(1994)/30%(1998)
Germany	(1987)/(1980-1986)		stabilization(1994)/30%(1998)
Greece	(1987)		stabilization(1994)
Hungary	265(unknown)	230(2000), 210(2005), 196(2010)	
Iceland			stabilization(1994)
Ireland	(1987)		stabilization(1994)/30%(1998)
Italy	(1987)/(1980-1986)		stabilization(1995)
Latvia	(1987)		stabilization(1994)/30%(1998)
Liechtenstein	(1987)/(1980-1986)		stabilization(1994)/30%(1998)
Lithuania	152(1980)	109(2000), 110(2005), 110(2010)	stabilization(1994)
Luxembourg	(1987)		stabilization(1994)
Malta			stabilization(1994)/30%(1998)
Netherlands	(1987)/(1980-1986)		stabilization(1994)/30%(1998)
Norway	(1987)/(1986)		stabilization(1994)/30%(1998)
Poland		845(2010), 850(2020)	
Portugal			
Republic of Moldova			20%(2000)
Romania	(1989)		stabilization(1994)
Russian Federation	(1987)		stabilization(1994 compared to 1987).
Slovakia	(1987/1991)		35%(2000 compared to 1991)
Slovenia			stabilization(1994)
Spain	(1987)		stabilization(1994)/30%(1998)
Sweden	(1987)/(1980-1986)	305(1995 total)/ 237(1995 transport)/ 142(2005 transport)/ 200(2010 guiding)	stabilization(1994)/30%(1998)
Switzerland	(1987)/(1980-1986)		stabilization(1994 compared to 1987). 30%(1998), 64%(unknown compared to 1985)
The FYR of Macedonia			
Turkey			stabilization(1994)
Ukraine	(1987)		stabilization(1994)
United Kingdom	(1987)		stabilization(1994)
United States	(1987)		stabilization(1994)
Yugoslavia			stabilization(1994 from 1987 and 1990)/ 30%(2000 from 1990)
European Community	(1987)/(1990)		

TABLE 19 NATIONAL EMISSION REDUCTION TARGETS FOR NON-METHANE VOLATILE ORGANIC COMPOUNDS			
Party	Emissions in kilotons (base year)	Emissions in kilotons (target years)	Reduction
Armenia			
Austria	(1988)		30%(1999), 40%(1996), 60%(2001), 70%(2006)
Belarus	533(1990)	321(2010)	
Belgium	(1988)		National: 30%(1999); Flemish Region: 66%(2010 compared to 1990)
Bulgaria	(1988)		stabilization(1999)
Canada			
Croatia			
Cyprus			
Czech Republic	(1990)		30%(1999)
Denmark	(1985)		30%(1999)
Finland	(1988)		30%(1999)
France	(1988)		30%(1999)
Germany	(1988)		30%(1999)
Greece			
Hungary	215(unknown)	180(2000), 160(2005), 145(2010)	
Iceland			
Ireland			
Italy	(1990)		30%(1999)
Latvia	(1988)		stabilization(1999)
Liechtenstein	(1984)		30%(1999)
Lithuania	116(1980)	94(2000), 92(2005), 92(2010)	
Luxembourg	(1990)		30%(1999)
Malta			
Netherlands	(1988)		30%(1999)
Norway	(1988/9)		National 0%(1999 compared to 1988); TOMA 30%(1999 compared to 1989)
Poland			
Portugal			
Republic of Moldova			
Romania			
Russian Federation			
Slovakia	(1990)		35%(2000)
Slovenia			
Spain	(1988)		30%(1999)
Sweden	(1988)	456(1995 total)/ 181(1996 transport)/ 72(2005 transport)/ 290(2010 total guiding)	30%(1999)
Switzerland	(1984/5)		30%(1999 compared to 1984), 55%(unknown compared to 1985)
The FYR of Macedonia			
Turkey			
Ukraine			
United Kingdom	(1988)		30%(1999)
United States			
Yugoslavia			
European Community	(1990)		10%(1996), 30%(1999)

TABLE 20 NATIONAL EMISSION REDUCTION TARGETS FOR CARBON DIOXIDE			
Party	Emissions in kilotons (base year)	Emissions in kilotons (target years)	Reduction
Armenia			
Austria	(1988)		20%(2005)
Belarus			
Belgium	(1990)		5%(2000)
Bulgaria			
Canada			
Croatia			
Cyprus			
Czech Republic			
Denmark	(1988)		20%(2005)
Finland			
France			
Germany	(1990)		25%(2005)
Greece			
Hungary			
Iceland			
Ireland			
Italy			
Latvia	(1990)		stabilization(2000)
Liechtenstein			
Lithuania	46(1980)	40(2000), 38(2005), 35(2010)	
Luxembourg			
Malta			
Netherlands			
Norway			
Poland			
Portugal			
Republic of Moldova			
Romania			
Russian Federation			
Slovakia			
Slovenia			
Spain			
Sweden			
Switzerland			
The FYR of Macedonia			
Turkey			
Ukraine			
United Kingdom			
United States			
Yugoslavia			
European Community			

TABLE 21 NATIONAL EMISSION REDUCTION TARGETS FOR OTHER POLLUTANTS			
Party	Emissions in kilotons (base year)	Emissions in kilotons (target years)	Reduction
Armenia			
Austria			
Belarus	1 722(1990)	1 404(2010 for CO)	
Belgium	(1985)/ Flemish region (1990)		70%(1995 for heavy metals and dioxins); 50%(1995 for other POP)/ Flemish Region: 40%(2002 for NH3), 67% (2010 for CO)
Bulgaria			
Canada			
Croatia			
Cyprus			
Czech Republic			
Denmark			
Finland			
France			
Germany			
Greece			
Hungary			
Iceland			
Ireland			
Italy			
Latvia	(1990)		stabilization(2000) for N ₂ O,CO and CH ₄
Liechtenstein			
Lithuania	85(NH ₃), 541(CO) and 372(CH ₄)(1980)	84(2000, 2005, 2010) for NH ₃ , 411(2000), 410(2005), 400(2010) for CO and 396(2000), 390(2005), 390(2010) for CH ₄	
Luxembourg			
Malta			
Netherlands			
Norway			
Poland			
Portugal			
Republic of Moldova			
Romania	(1989)		40%(2000)(for each of CL ₂ and HCl)
Russian Federation			
Slovakia	(1991)		65%(2000) for particulate matter
Slovenia			
Spain			
Sweden		48(2010 guiding) for NH ₃	
Switzerland			
The FYR of Macedonia			
Turkey			
Ukraine			
United Kingdom			
United States			
Yugoslavia			
European Community			

TABLE 22 ENERGY CONSUMPTION PATTERNS AND TRENDS							
GROSS CONSUMPTION OF ENERGY (MILLIONS OF TONS OF OIL EQUIVALENT)							
PARTY	ENERGY CATEGORY	1985	1990	1995	2000	2005	2010
Austria (figures in TeraJoules)	1. Solid fuels	180.7	172.5	137.1	112.0	94.8	83.7
	2. Liquid fuels	410.6	442.7	470.8	454.2	448.1	443.7
	3. Gaseous fuels	191.2	219.4	267.2	300.8	344.0	383.8
	4. Nuclear energy ¹	0.0	0.0	0.0	0.0	0.0	0.0
	5. Electricity	141.0	146.9	172.6	181.2	186.2	194.4
	6. Hydro- and geothermal energy						
	7. Steam and hot water						
	8. Other forms of energy	121.2	135.1	135.7	146.4	157.5	173.0
	TOTAL	1044.8	1116.4	1183.3	1194.7	1230.6	1278.5
Belarus (millions of standard fuel equivalents (sfe)) (sfe=7000kcal/kg)	1. Solid fuels	4.7	3.9	2.8	1.4	1.3	1.1
	2. Liquid fuels	39.4	37.8	14.7	14.8	17.8	17.0
	3. Gaseous fuels	11.0	17.9	16.0	22.4	25.3	29.4
	4. Nuclear energy						
	5. Electricity	0.8	3.1	2.0	2.1	2.4	3.0
	6. Hydro- and geothermal energy						
	7. Steam and hot water	13.8	19.2	12.5	13.7	14.4	15.3
	8. Other forms of energy	1.7	0.4	no data	no data	no data	no data
	TOTAL	57.6	63.1	35.3	41.5	47.8	50.0
Belgium	1. Solid fuels	10.1	10.6	10.0	9.0	8.0	8.0
	2. Liquid fuels	17.3	18.3	20.5	22.0	22.8	23.1
	3. Gaseous fuels	8.2	9.1	11.8	12.6	13.6	15.1
	4. Nuclear energy	7.7	9.5	9.2	9.5	9.5	9.5
	5. Electricity	0.3	-0.6	1.2			
	6. Hydro- and geothermal energy						
	7. Steam and hot water						
	8. Other forms of energy						
	TOTAL	43.6	46.9	52.7			
Bulgaria	1. Solid fuels	10.6	9.5	8.6	9.7	10.6	11.0
	2. Liquid fuels	13.0	9.9	6.4	10.9	11.1	10.9
	3. Gaseous fuels	4.4	5.4	4.6	3.6	4.8	5.4
	4. Nuclear energy	3.5	3.9	4.5	5.4	4.2	4.8
	5. Electricity ²	0.4	0.3	0.0	0.0	0.0	0.0
	6. Hydro- and geothermal energy	0.2	0.2	0.2	0.2	0.2	0.3
	7. Steam and hot water	0.0	0.0	0.0	0.0	0.0	0.0
	8. Other forms of energy	0.0	0.0	0.0	0.0	0.0	0.0
	TOTAL	32.1	29.3	24.5	29.9	31.0	32.4
Canada	1. Solid fuels	27.2	25.7	26.7	24.1	25.9	28.8
	2. Liquid fuels	76.4	83.8	85.9	87.7	92.0	97.3
	3. Gaseous fuels	54.3	64.4	78.1	85.0	88.8	90.6
	4. Nuclear energy	15.8	19.0	27.5	29.8	29.9	28.9
	5. Electricity	36.7	40.3	46.9	48.3	50.2	51.5
	6. Hydro- and geothermal energy	22.4	25.1	28.4	29.7	30.2	30.2
	7. Steam and hot water	0.2	0.1	0.4	0.6	0.6	0.6
	8. Other forms of energy	0.0	0.0	0.0	0.0	0.0	0.0
	TOTAL	196.3	218.2	247.1	256.8	267.4	276.4
Croatia	1. Solid fuels	1.0	0.8	0.2	0.6	0.7	0.7

PARTY	ENERGY CATEGORY	1985	1990	1995	2000	2005	2010
Croatia continued	2. Liquid fuels	4.2	4.5	3.5	4.0	4.5	5.0
	3. Gaseous fuels	1.8	2.3	2.1	2.9	3.7	3.9
	4. Nuclear energy						
	5. Electricity	0.6	0.6	0.3	0.2	0.2	0.2
	6. Hydro- and geothermal energy	1.2	0.9	1.2	1.4	1.4	1.4
	7. Steam and hot water						
	8. Other forms of energy	0.5	0.5	0.3	0.6	0.7	0.9
	TOTAL	9.3	9.7	7.6	9.8	11.2	12.0
Cyprus	1. Solid fuels	0.0	0.1	0.1	0.1	0.1	0.1
	2. Liquid fuels	0.5	0.8	1.0	1.2	1.5	1.6
	3. Gaseous fuels	0.0	0.0	0.0	0.1	0.1	0.1
	4. Nuclear energy						
	5. Electricity	0.4	0.5	0.7	1.0	1.3	1.6
	6. Hydro- and geothermal energy						
	7. Steam and hot water						
	8. Other forms of energy	0.1	0.1	0.1	0.1	0.1	0.1
TOTAL	1.1	1.6	1.9	2.5	3.0	3.5	
Czech Republic	1. Solid fuels	36.4	32.2	23.2	22.1	23.9	23.9
	2. Liquid fuels	10.3	8.5	7.6	8.6	9.1	9.3
	3. Gaseous fuels	4.1	5.4	6.5	7.6	8.6	11.5
	4. Nuclear energy ³	0.8	3.4	3.4	3.4	6.0	6.0
	5. Electricity	3.2	5.2	4.5	5.4	6.2	6.6
	6. Hydro- and geothermal energy	0.0	0.0	0.0	0.0	0.0	0.0
	7. Steam and hot water	4.8	7.8	6.3	6.4	6.4	6.4
	8. Other forms of energy	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL	59.6	62.5	51.7	53.5	60.1	63.7	
Denmark ⁴	1. Solid fuels	8.3	9.0	7.8	6.4	5.6	4.9
	2. Liquid fuels	8.6	7.0	7.2	6.8	6.1	5.7
	3. Gaseous fuels	1.3	2.6	3.8	5.7	6.7	6.3
	4. Nuclear energy	0.0	0.0	0.0	0.0	0.0	0.0
	5. Electricity	0.0	0.0	0.1	0.2	0.3	0.5
	6. Hydro- and geothermal energy	0.0	0.0	0.0	0.0	0.0	0.0
	7. Steam and hot water	0.0	0.0	0.0	0.0	0.0	0.0
	8. Other forms of energy	0.0	0.1	0.1	0.0	0.0	0.1
TOTAL	18.2	18.7	19.0	19.1	18.8	17.6	
Finland ⁵	1. Solid fuels	6.3	6.5	7.7	8.5	9.6	10.7
	2. Liquid fuels	9.5	9.2	8.2	8.2	8.3	8.4
	3. Gaseous fuels	1.1	2.7	3.2	3.7	4.3	4.9
	4. Nuclear energy	4.5	4.5	4.7	5.5	5.5	5.5
	5. Electricity	1.2	2.7	0.7	0.7	0.8	0.8
	6. Hydro- and geothermal energy	3.1	2.7	1.1	1.1	1.1	1.2
	7. Steam and hot water	0.2	0.2	0.2	0.2	0.2	0.2
	8. Other forms of energy	1.7	2.1	2.6	2.8	3.0	3.3
TOTAL	27.6	30.6	28.5	30.7	32.8	35.0	
Germany	1. Solid fuels	148.0	131.5	90.6	93.7	92.4	91.3
	2. Liquid fuels	122.1	125.1	135.9	144.6	142.6	138.7
	3. Gaseous fuels	49.8	55.3	67.8	69.7	73.1	76.0
	4. Nuclear energy	32.3	34.5	35.1	34.1	31.8	31.0
	5. Electricity	0.6	0.3	1.0	0.5	2.3	3.7
	6. Hydro- and geothermal energy	3.6	3.6	4.8	4.1	4.1	4.2
	7. Steam and hot water	0.0	0.0	0.0			

PARTY	ENERGY CATEGORY	1985	1990	1995	2000	2005	2010
Germany continued	8. Other forms of energy	2.6	3.0	3.8			
	TOTAL	359.1	353.3	338.9	346.7	346.3	344.8
Hungary	1. Solid fuels	8.8	6.9	4.7	4.9	5.1	5.2
	2. Liquid fuels	8.5	7.3	5.9	5.7	6.9	7.4
	3. Gaseous fuels	8.2	8.3	8.8	10.6	11.1	11.2
	4. Nuclear energy	1.5	3.3	3.3	3.5	3.5	3.5
	5. Electricity ⁶	2.6	2.7	0.6	0.5	0.5	0.5
	6. Hydro- and geothermal energy	0.0	0.0	0.0	0.0	0.0	0.0
	7. Steam and hot water						
	8. Other forms of energy	0.3	0.3	0.3			
	TOTAL	30.1	28.7	23.7	25.3	27.1	27.9
Ireland	1. Solid fuels	2.5	3.5	3.1	2.6	2.3	2.2
	2. Liquid fuels	3.9	4.3	5.5	6.6	7.0	8.3
	3. Gaseous fuels	1.6	1.4	1.9	2.7	4.5	5.4
	4. Nuclear energy						
	5. Electricity ⁷	0.1	0.1	0.1	0.1	0.1	0.1
	6. Hydro- and geothermal energy						
	7. Steam and hot water						
	8. Other forms of energy	0.0	0.1	0.1	0.2	0.3	0.4
	TOTAL	8.1	9.4	10.7	12.2	14.2	16.4
Italy	1. Solid fuels		15.8	13.8			16.6
	2. Liquid fuels		92.5	95.7			89.9
	3. Gaseous fuels		39.1	44.9			71.5
	4. Nuclear energy						
	5. Electricity		6.3	7.1			6.4
	6. Hydro- and geothermal energy						
	7. Steam and hot water						
	8. Other forms of energy						
	TOTAL		153.7	161.5			184.4
Lithuania ⁸	1. Solid fuels	1.3	1.2	0.5	0.9	0.9	0.9
	2. Liquid fuels	9.0	7.3	5.9	4.1	3.8	3.5
	3. Gaseous fuels	3.6	4.7	2.1	2.1	3.2	4.3
	4. Nuclear energy	2.5	4.4	3.1	2.4	2.6	2.8
	5. Electricity			0.8			
	6. Hydro- and geothermal energy	0.0	0.0	0.0	0.0	0.0	0.0
	7. Steam and hot water			1.6			
	8. Other forms of energy						
	TOTAL	16.4	17.6	14.0	9.5	10.5	11.5
Netherlands ⁹	1. Solid fuels	6.7	8.9	9.1	7.6	7.4	7.3
	2. Liquid fuels	20.3	24.8	27.5	27.1	28.7	30.4
	3. Gaseous fuels	32.3	30.8	34.1	40.0	43.5	47.0
	4. Nuclear energy	1.0	0.9	1.1	0.8	0.4	0.0
	5. Electricity	0.4	0.8	1.0	0.8	0.7	0.6
	6. Hydro- and geothermal energy	0.0	0.0	0.0	0.0	0.0	0.0
	7. Steam and hot water	0.0	0.0	0.0	0.0	0.0	0.0
	8. Other forms of energy	0.0	0.2	0.5	2.0	2.3	2.6
	TOTAL	60.8	66.4	73.3	78.3	83.0	87.9
Norway ¹⁰	1. Solid fuels	2.4	2.2	2.5			
	2. Liquid fuels	7.5	7.1	7.1			
	3. Gaseous fuels	1.5	2.7	4.3			
	4. Nuclear energy	0.0	0.0	0.0	0.0	0.0	0.0

PARTY	ENERGY CATEGORY	1985	1990	1995	2000	2005	2010
Norway continued	5. Electricity	8.0	8.4	9.1			
	6. Hydro- and geothermal energy						
	7. Steam and hot water						
	8. Other forms of energy	19.5	20.4	23.0			
	TOTAL						
Poland	1. Solid fuels		16.7		17.8		13.7
	2. Liquid fuels		10.5		12.8		16.0
	3. Gaseous fuels		9.5		10.1		12.1
	4. Nuclear energy		0.0		0.0		0.0
	5. Electricity		8.5		9.5		12.1
	6. Hydro- and geothermal energy		0.0		19.0		0.0
	7. Steam and hot water		18.6		0.0		19.3
	8. Other forms of energy		0.0		0.0		0.0
TOTAL		63.8		69.2		73.2	
Portugal	1. Solid fuels	1.7	3.9	4.7	5.1	5.2	5.3
	2. Liquid fuels	8.6	11.7	13.8	13.1	14.8	16.0
	3. Gaseous fuels	0.0	0.0	0.0	1.7	2.2	3.6
	4. Nuclear energy	0.0	0.0	0.0	0.0	0.0	0.0
	5. Electricity	0.3	0.0	0.8	1.0	1.1	1.1
	6. Hydro- and geothermal energy	0.9	0.8	0.7	1.0	1.1	1.1
	7. Steam and hot water	0.0	0.0	0.0	0.0	0.0	0.0
	8. Other forms of energy	0.0	0.0	0.0	0.0	0.1	0.1
	TOTAL	11.5	16.4	19.3	21.0	23.5	26.0
Republic of Moldova ¹¹	1. Solid fuels	3.2	3.2	0.9	1.0	0.9	0.8
	2. Liquid fuels	6.3	4.2	1.2	1.8	2.3	2.4
	3. Gaseous fuels	1.0	3.1	2.4	3.1	4.4	5.6
	4. Nuclear energy						
	5. Electricity	0.9	1.1	0.5	0.6	0.8	1.0
	6. Hydro- and geothermal energy	0.0	0.0	0.0	0.0	0.0	0.0
	7. Steam and hot water	1.9	2.6	0.5	0.6	0.6	0.7
	8. Other forms of energy	0.2	0.6	1.2	0.6	0.6	0.5
TOTAL	13.4	14.8	6.7	7.7	9.7	11.0	
Romania	1. Solid fuels	7.1	6.4	3.8	2.9	3.1	3.4
	2. Liquid fuels	12.8	8.2	6.3	6.3	7.5	8.1
	3. Gaseous fuels	13.9	11.6	8.3	7.9	8.6	9.6
	4. Nuclear energy	0.0	0.0	0.0	0.3	0.7	0.7
	5. Electricity	4.6	4.7	2.6	2.1	2.4	3.2
	6. Hydro- and geothermal energy	1.0	0.9	1.4	1.4	1.4	1.4
	7. Steam and hot water	14.9	15.2	9.4	9.2	10.3	11.4
	8. Other forms of energy						
TOTAL	54.3	47.1	31.8	30.1	34.1	37.8	
Russian Federation ¹²	1. Solid fuels	235.0	226.8	119.5			
	2. Liquid fuels	147.6	139.4	186.5			
	3. Gaseous fuels	69.7	237.6	307.0			
	4. Nuclear energy						
	5. Electricity	80.4	89.5	70.0			
	6. Hydro- and geothermal energy						
	7. Steam and hot water	152.0	164.0	128.0			
	8. Other forms of energy						
TOTAL	684.7	857.3	811.0				
Slovakia ¹³	1. Solid fuels		7.4	5.2			5.5

PARTY	ENERGY CATEGORY	1985	1990	1995	2000	2005	2010
Slovakia continued	2. Liquid fuels			3.4			4.0
	3. Gaseous fuels		5.1	4.8			7.5
	4. Nuclear energy			3.0			4.3
	5. Electricity		29.3	27.3			
	6. Hydro- and geothermal energy		2.5	5.2			
	7. Steam and hot water						
	8. Other forms of energy						
	TOTAL						
Slovenia	1. Solid fuels	2.3	1.8	1.7	1.7	1.6	1.6
	2. Liquid fuels	1.7	2.0	2.3	2.2	2.2	2.2
	3. Gaseous fuels	0.7	0.8	0.7	0.9	1.2	1.3
	4. Nuclear energy	1.1	1.2	1.2	1.1	1.1	1.1
	5. Electricity	0.0	-0.1	-0.1	0.0		
	6. Hydro- and geothermal energy	0.3	0.3	0.3	0.3	0.4	0.4
	7. Steam and hot water						
	8. Other forms of energy	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL	6.1	5.9	6.1	6.3	6.5	6.7	
Spain	1. Solid fuels	19.1	19.1		21.5		
	2. Liquid fuels	39.5	47.7		56.3		
	3. Gaseous fuels	2.2	5.0		13.5		
	4. Nuclear energy	7.3	14.1		12.5		
	5. Electricity	0.9	0.4		0.5		
	6. Hydro- and geothermal energy	2.7	2.2		3.1		
	7. Steam and hot water						
	8. Other forms of energy		2.5		3.2		
TOTAL	70.8	90.6		110.5			
Sweden	1. Solid fuels	8.2	8.3	9.7	10.6	10.8	11.2
	2. Liquid fuels	18.3	16.1	17.5	18.1	18.6	19.2
	3. Gaseous fuels	0.1	0.6	0.8	0.8	0.9	1.1
	4. Nuclear energy	14.9	17.2	17.5	16.9	16.9	16.9
	5. Electricity						
	6. Hydro- and geothermal energy	6.1	6.3	5.9	5.5	5.5	5.7
	7. Steam and hot water						
	8. Other forms of energy	0.3	0.4	0.5	1.1	1.3	1.5
TOTAL	47.9	48.9	51.8	53.0	54.0	55.6	
Switzerland	1. Solid fuels	1.3	1.1	1.1	1.1	1.1	1.1
	2. Liquid fuels	11.9	12.3	11.9	11.8	12.0	12.2
	3. Gaseous fuels	1.4	1.8	2.1	2.2	2.3	2.5
	4. Nuclear energy	4.3	4.8	4.9	5.1	5.4	5.7
	5. Electricity	3.5	4.0	4.1	4.3	4.5	4.7
	6. Hydro- and geothermal energy	2.1	2.4	2.5	2.6	2.7	2.8
	7. Steam and hot water	0.0	0.0	0.0	0.0	0.0	0.0
	8. Other forms of energy	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL	24.5	26.4	26.6	27.1	28.1	29.1	
Turkey ¹⁴	1. Solid fuels	11.9	16.0	18.4	20.3	30.5	50.3
	2. Liquid fuels	18.1	23.9	32.0	38.4	43.2	53.5
	3. Gaseous fuels	0.1	3.1	10.0	20.9	30.1	39.1
	4. Nuclear energy	0.0	0.0	0.0	0.0	1.8	3.7
	5. Electricity	0.2	0.1	0.2	0.0	0.0	0.0
	6. Hydro- and geothermal energy	1.0	2.1	3.3	3.8	6.3	7.7
	7. Steam and hot water	0.0	0.0	0.1	0.6	1.8	5.7
	8. Other forms of energy ¹⁵	0.0	0.0	7.1	7.1	7.3	7.5

PARTY	ENERGY CATEGORY	1985	1990	1995	2000	2005	2010
Turkey continued	TOTAL			71.1	91.0	121.0	167.5
Ukraine	1. Solid fuels ¹⁶	20.4	18.2		19.0	23.0	22.8
	2. Liquid fuels ¹⁶	16.4	9.2		4.0	4.0	4.0
	3. Gaseous fuels ¹⁶	16.4	27.0		17.4	17.2	17.8
	4. Nuclear energy	13.3	19.1		19.6	21.8	23.1
	5. Electricity	52.0	52.9		33.6	38.3	38.9
	6. Hydro- and geothermal energy	2.7	2.7		3.6	3.7	3.7
	7. Steam and hot water	7.3	7.3		8.0	8.3	8.5
	8. Other forms of energy	0.0	0.0		0.0	0.0	0.0
	TOTAL	75.3	82.0		64.8	72.1	74.2
United Kingdom ¹⁷	1. Solid fuels	64.8	67.4	49.9	36.0	33.2	29.5
	2. Liquid fuels	73.5	78.3	76.2	77.9	84.7	91.1
	3. Gaseous fuels	51.8	50.6	70.1	92.0	104.3	114.9
	4. Nuclear energy	16.5	16.3	21.4	22.9	17.7	13.3
	5. Electricity						
	6. Hydro- and geothermal energy	0.4	0.4	0.5	0.4	0.4	0.4
	7. Steam and hot water						
	8. Other forms of energy	0.0	1.0	1.4	1.4	1.4	1.4
	TOTAL	207.0	214.1	219.5	230.7	241.8	250.7
United States of America	1. Solid fuels	478.0	519.0	533.0	565.0	585.0	613.0
	2. Liquid fuels	728.0	791.0	823.0	894.0	955.0	999.0
	3. Gaseous fuels	417.0	455.0	523.0	578.0	635.0	678.0
	4. Nuclear energy	99.0	146.0	169.0	173.0	165.0	154.0
	5. Electricity ¹⁸	2.0	1.0	9.0	10.0	8.0	8.0
	6. Hydro- and geothermal energy	73.0	74.0	85.0	85.0	87.0	88.0
	7. Steam and hot water	0.0	0.0	0.0	0.0	0.0	0.0
	8. Other forms of energy	0.0	1.0	1.0	1.0	2.0	2.0
	TOTAL	1801.0	1987.0	2143.0	2306.0	2435.0	2543.0
Yugoslavia	1. Solid fuels		8.7	7.7	8.2	8.5	10.1
	2. Liquid fuels		5.0	1.5	4.5	5.3	6.0
	3. Gaseous fuels		2.4	1.5	2.3	3.0	3.9
	4. Nuclear energy						
	5. Electricity		2.4	2.5	0.9	1.0	1.0
	6. Hydro- and geothermal energy						
	7. Steam and hot water						
	8. Other forms of energy		0.0	0.0	0.1	0.1	0.2
	TOTAL						
European Community ¹⁹	1. Solid fuels		302.6	244.3	216.4	205.0	175.0
	2. Liquid fuels		544.6	580.7	39300.0	629.2	649.4
	3. Gaseous fuels		222.3	276.3	333.2	385.6	440.1
	4. Nuclear energy		181.4	204.7	218.8	217.5	214.6
	5. Electricity		2.3	1.4	1.1	1.8	1.0
	6. Hydro- and geothermal energy		65.0	66.8	83.5	93.2	103.0
	7. Steam and hot water						
	8. Other forms of energy						
	TOTAL		1318.2	1374.2	1461.7	1532.4	1583.1

Footnotes to table 22

1. Nuclear is included in electricity. Statistics updated since Second National Climate Report.
2. Gross inland deliveries - production+imports-exports.
3. Completion of Temelin nuclear power plant expected 2000, but being evaluated and may not be completed at all.
4. Fuel used for non-energy purposes is not included.
5. Methodology change in 1995.
6. Electricity is imports. Exports, feedstocks and non-energy use are not included.
7. Electricity is hydro only, no net imports.
8. Projections assume that the Ignalina Nuclear Power Plant is still in operation.
9. Projections based on global competition scenario, European Coordination scenario gives lower figures. Steam and hot water figures not included in International Energy Agency (IEA) figures.
10. Also transport oils and non-transport oils 6.1 in 1995 and 7.0 in 2010, natural gas used in petroleum production on the continental shelf 3.3 in 1995 and 5.2 in 2010, electricity other than in the energy sector 8.9 in 1995 and 10.1 in 2010.
11. Excluding the left bank of the Republic since 1995.
12. Category 1,2 and 3 figures displayed as 1995 are 1994 data.
13. Category 5 and 6 figures are expressed in TWh.
14. Figures displayed as 1995 are 1997 data.
15. Solar, wood and organic residue.
16. To avoid double counting, the figures do not include the mass of those fuels used to generate electricity, steam and hot water.
17. Data updated since UNFCCC submission.
18. Electricity is imports.
19. Category 6 includes all renewables.

TABLE 23 AMBIENT AIR QUALITY STANDARDS RELATING TO HEALTH EFFECTS (IN MICROGRAMMES PER CUBIC METRE)						
Party	Sulphur dioxide					
	Short-term Standard	(Averaging time)	Medium-term Standard	(Averaging time)	Long-term Standard	(Averaging time)
Armenia	500	(30 min)	50	(24 hr)		
Austria	200/ (400/600/800)	(30 min)/ (alert values over three hours)	120	(24 hr)		
Belarus	500	(20 min)	200	(24 hr)	50	(1 yr)
Belgium			120/350	(annual 50 %ile of 24 hr values/ annual 98 %ile of 24 hr values)		
Bulgaria	500	(30 min)	150	(24 hr)	50	(1 yr)
Canada	900	(1 hr)	300	(24 hr)	60	(1 yr)
Croatia	350	(1 hr)	125/250	(24 hr) (guide/ limit value)	50/80	(24 hr) (guide/ limit value)
Cyprus	250	(98 %ile of hourly values)			80	(1 yr)
Czech Republic	500	(95 %ile of 30 min values)	150	(95 %ile of daily values)	60	(1 yr)
Denmark	80/130/250	(annual median of 1 hr values/ winter median of 1 hr values/ annual 98 %ile of 1 hr values)				
Finland	250	(99 %ile of hourly values)	80	(day) (second highest monthly value)		
Germany	250(if particulate >350), 350(if particulate <350)	(98 %ile of daily values)			130(if particulate >200), 180(if particulate <200) / 80(if particulate >150), 120(if particulate <150)	(50 %ile of daily values in winter) / (50 %ile of daily values)
Greece	89/427/EEC applies		89/427/EEC applies		89/427/EEC applies	
Hungary	250	(30 min)	150	(24 hr)	70	(1 yr)
Iceland			50	(24 hr)	30	(1 yr)
Ireland	80/120/130/ 180/250/350	(24 hr median with smoke >40/ <40)/ (24 hr winter median with smoke >60/ <60)/ (98 %ile of 24 hr values with smoke >150/ <150)	250/350	(72 hr value with smoke >150/ <150)		
Italy	125/250	(24 hr) (warning/ alarm)	130	(24 hr median value Oct-Mar)	80/250	(median daily value/ 98 %ile of daily values)
Liechtenstein	100	(30 min)	100	(24 hr)	30	(1 yr)
Lithuania	500	(30 min)	50	(24 hr)		
Luxembourg	80/120/130/ 180/250/350	(24 hr median with smoke >40/ <40)/ (24 hr winter median with smoke >60/ <60)/ (98 %ile of 24 hr values with smoke >150/ <150)				
Netherlands	830	(1 hr)	500/ 75/ 200/ 250	(absolute daily/ 50 %ile of daily values/ 95 %ile of daily values/ 98 %ile of daily values)	2	(1 yr target)
Norway	400	(15 min. when SO2 dominant)	90	(24 hr)	40	(6 months)
Poland	500	(annual 99.8 %ile of 30 min values)	150	(annual 98 %ile of 24 hr values)	40	(1 yr)
Portugal			100-150	(24 hr)	100/250/40-60	(annual 50 %ile of 24 hr values/ annual 98 %ile of 24 hr values/ annual guide value)
Romania	750	(30 min)	250	(24 hr)	60	(1 yr)
Russian Federation	500	(20 min)	50	(24 hr, month)	50	(1 yr)
Slovakia	500	(30 min)	150	(24 hr)	60	(1 yr)
Slovenia	350	(1 hr)	125	(24 hr)	50/200/100	(1 yr/ annual 98 %ile of 30 min values/ annual 98 %ile of 24 hr values)
Sweden	200	(winter half year 98 %ile of 1 hr values)	100	(winter half year 98 %ile of 24 hr values)	50	(winter half year)
Switzerland	100	(annual 98 %ile of 30 min values)	100	(24 hr) (one exceedance per year)	30	(1 yr)
Turkey	900		400		150	
Ukraine	500	(30 min)	50	(24 hr)		
United Kingdom (by 2005)	100 ppb	(99.9 %ile of 15 min values)				
United States of America			365	(24 hr)	80	(1 yr)
Yugoslavia	350	(1 hr)	150	(24 hr)	50	(1 yr)
European Community	80/120/130/ 180/250/350	(24 hr median with smoke >40/ <40)/ (24 hr winter median with smoke >60/ <60)/ (98 %ile of 24 hr values with smoke >150/ <150)	250/350	(72 hr value with smoke >150/ <150)		

Party	Nitrogen dioxide					
	Short-term		Medium-term		Long-term	
	Standard	(Averaging time)	Standard	(Averaging time)	Standard	(Averaging time)
Armenia	85	(30 min)	40	(24 hr)		
Austria	200/ (350/600/800)	(30 min)/ (alert values over three hours)				
Belarus	250	(20 min)	100	(24 hr)	40	(1 yr)
Belgium	200	(annual 98 %ile of 1 hr or 30 min values)				
Bulgaria	200	(30 min)	100	(24 hr)	50	(1 yr)
Canada	400	(1 hr)	200	(24 hr)	100	(1 yr)
Croatia	200	(1 hr)	60/120	(24 hr)		
Cyprus	400	(98 %ile of hourly values)	150	(98 %ile of daily values)		
Czech Republic	200	(98 %ile of 30 min values)	100	(95 %ile of daily values)		
Denmark	200/135/50	(annual 98 %ile of hourly values/ annual 98 %ile of hourly values, guide/ annual median of 1 hr values, guide)				
Finland	150	(99 %ile of hourly values)	70	(day) (second highest monthly value)		
Germany	200	(98 %ile of 30 min values)			80	(1 yr) (binding standard for licensing)
Greece					200	(98 %ile of hourly values)
Hungary	100	(30 min)	85	(24 hr)	70	(1 yr)
Iceland	110	(98 %ile of hourly values)	75	(98 %ile of daily values)	30	(1 yr)
Ireland	200	(annual 98 %ile of hourly values)				
Italy	200/400	(1 hr)			200	(98 %ile of hourly values)
Liechtenstein	100	(30 min)	80	(24 hr)	30	(1 yr)
Lithuania	85	(30 min)	40	(24 hr)		
Luxembourg	200	(annual 98 %ile of hourly values)				
Netherlands	135/175	(98 %ile of hourly values/ 99.5 %ile of hourly values)			5	(1 yr target)
Norway	0.2	(1 hr)	75	(24 hr)	50	(6 months)
Poland	500	(annual 99.8 %ile of 30 min values)	150	(annual 98 %ile of daily values)	40	(1 yr)
Portugal					200/50/135	(annual 98 %ile of 24 hr values/ annual 50 %ile of 24 hr values, guide/ annual 98 %ile of 24 hr values, guide)
Romania	300	(30 min)	100	(24 hr)	40	(1 yr)
Russian Federation	85	(20 min)	40	(24 hr, month)	40	(1 yr)
Slovakia	200	(30 min)	100	(24 hr)	80	(1 yr)
Slovenia	300	(1 hr)	150	(24 hr)	50/200/120	(1 yr/ annual 98 %ile of 30 min values/ annual 98 %ile of 24 hr values)
Sweden	90	(winter half year 98 %ile of 1 hr values)	100	(winter half year 98 %ile of 24 hr values)	40	(winter half year)
Switzerland	100	(annual 98 %ile of 30 min values)	80	(24 hr) (one exceedance per year)	30	(1 yr)
Turkey	300				100	
Ukraine	85	(30 min)	40	(24 hr)		
United Kingdom (by 2005)	150 ppb	(1 hr)			21 ppb	(1 yr)
United States of America					100	(1 yr)
Yugoslavia	150	(1 hr)	85	(24 hr)	60	(1 yr)
European Community			200	(annual 98 %ile of hourly values)	135	(annual 98 %ile of hourly values)

Party	Ozone					
	Short-term		Medium-term		Long-term	
	Standard	(Averaging time)	Standard	(Averaging time)	Standard	(Averaging time)
Armenia	160	(30 min)	30	(24 hr)		
Austria	200/300/400	(alert values over three hours)	110	(8 hr)		
Belarus	160	(20 min)	30	(24 hr)	30	(1 yr)
Belgium	180	(1 hr)	110	(8 hr)		
Bulgaria	160	(30 min)	100	(8 hr)		
Canada	160	(1 hr)	50	(24 hr)	30	(1 yr)
Croatia	180	(1 hr)	110/150	(24 hr) (guide/ limit value)		
Cyprus	175	(95 %ile of hourly values)	100	(8 hr)		
Czech Republic			160	(8 hr)		
Denmark	360/180	(1 hr, public warning/ information)	110	(8 hr)		
Finland	180/360	(1 hr) threshold values	110	(8 hr) threshold value		
Germany	240/360	(1 hr) (traffic bans/ population warning)	110/180	(8 hr) (not binding/ public information)		
Hungary	110	(30 min)	100	(24 hr)		
Iceland	120	(1 hr)	90	(8 hr)	65	(24 hr)
Ireland	180/360	(1 hr) (public information/ warning)	110	(8 hr)		
Italy	180/200/360	(1 hr) (warning/ standard/ alarm)	110	(8 hr)		
Liechtenstein	120	(1 hr)	100	(monthly 98 %ile of 30 min values)		
Lithuania	160	(30 min)	30	(24 hr)		
Luxembourg	180/360	(1 hr) (public information/ warning)	110	(8 hr)		
Netherlands	to be based on WHO/EC standards					
Norway	100	(1 hr)	80	(8 hr)		
Poland	110	(8 hr)				
Portugal	180/360	(1 hr) (public information/ warning)	110	(8 hr)		
Romania	100	(30 min)	30	(24 hr)		
Russian Federation	160	(20 min)	30	(24 hr, month)	30	(1 yr)
Slovakia			110	(8 hr)		
Slovenia	150	(1 hr)	100/65	(8 hr/24 hr)	50/100	(1 yr/ annual 98 %ile of 30 min values)
Spain	180/360	(1 hr) (information/)	110	(8 hr)		
Sweden	80	(1 hr)	110	(8 hr)		
Switzerland	100	(monthly 98 %ile of 30 min values)	120	(1 hr) (one exceedance per year)		
Turkey	240					
Ukraine	160	(30 min)	30	(24 hr)		
United Kingdom (by 2005)			50 ppb	(97 %ile of 8 hr values)		
United States of America			154	(8 hr)		
Yugoslavia	150	(1 hr)	85	(24 hr)	80	(1 yr)
European Community			100	(8 hr)		

Party	Particulates					
	Short-term Standard	(Averaging time)	Medium-term Standard	(Averaging time)	Long-term Standard	(Averaging time)
Austria	600/800/1000	(alert values over three hours, as a sum of TSP + SO ₂)	150	(24 hr)		
Belarus	500	(20 min)	150	(24 hr)	150	(1 yr)
Belgium			80/250	(annual 50 %ile of 24 hr values/ annual 98 %ile of 24 hr values)		
Bulgaria	500	(30 min)	250	(24 hr)	150	(1 yr)
Canada			120	(24 hr)	70	(1 yr)
Croatia			120/350	(24 hr) (guide/ limit value)	75/150	(24 hr) (guide/ limit value)
Cyprus			250	(98 %ile of daily values)	150	(1 yr)
Czech Republic	500	(95 %ile of 30 min values)	150	(95 %ile of daily values)	60	(1 yr)
Denmark			300/150	(annual 95 %ile of 24 hr values/ 24 hr)		
Finland			120	(98 %ile of daily values)	50 (PM ₁₀)	(1 yr)
Germany	300	(98 %ile of daily values)			150	(1 yr)
Greece			250	(98 %ile of 24 hr values)	80	(median of 24 hr values)
Hungary	200	(30 min)	100	(24 hr)	50	(1 yr)
Iceland			130	(98 %ile of 24 hr values)	40	(1 yr)
Ireland			80/130/250	(annual median of 24 hr values/ median of 24 hr values Oct - Mar/ annual 98 %ile of 24 hr values)		
Italy	150/300	(24 hr) (warning/ alarm)			150/300	(median daily value/ 98 %ile of daily values)
Lithuania	500/150	(30 min) (TSP/ soot)	150/50	(24 hr) (TSP/ soot)		
Luxembourg			80/130/250	(annual median of 24 hr values/ median of 24 hr values Oct - Mar/ annual 98 %ile of 24 hr values)		
Netherlands	150	(1 hr)	30/75/90	(50 %ile of daily values/ 95 %ile of daily values/ 98 %ile of daily values)		
Norway			150	(24 hr, as PM ₁₀)	40/30	(6 months) (PM ₁₀ /PM _{2.5})
Poland	350	(annual 99.8 %ile of 30 min values)	150	(annual 98 %ile of 24 hr values)	75	(1 yr)
Portugal					150/300	(annual/ annual 95 %ile of 24 hr values)
Republic of Moldova	150	(20 min)	50	(24 hr)		
Romania	500	(30 min)	150	(24 hr)	75	(1 yr)
Russian Federation	500	(20 min)	150	(24 hr, month)	150	(1 yr)
Slovakia	500	(30 min)	150	(24 hr)	60	(1 yr)
Slovenia	300/200	(1 hr) (total/PM ₁₀)	175/125	(24 hr) (total/PM ₁₀)	70/50	(1 yr) (total/PM ₁₀)
Sweden			100	(24 hr)	20	(1 yr)
Switzerland	50	(24 hr) (one exceedance per year)			20	(1 yr)
Turkey			300		150	
Ukraine	500	(30 min)	150	(24 hr)		
United Kingdom (by 2005)			50	(99 %ile of 24 hr values)		
United States of America			65/150	(24 hr) (PM _{2.5} / PM ₁₀)	15/50	(1 yr) (PM _{2.5} / PM ₁₀)
Yugoslavia	150	(1 hr, smoke)	120/50	(24 hr) (total/ smoke)	70/50	(1 yr) (total/ smoke)
European Community			80/130/250	(annual median of 24 hr values/ median of 24 hr values Oct - Mar/ annual 98 %ile of 24 hr values)		

Party	Lead					Mercury				
	Short-term		Medium-term		Long-term	Short-term		Medium-term		Long-term
	Standard	(Averaging time)	Standard	(Averaging time)	Standard	(Averaging time)	Standard	(Averaging time)	Standard	(Averaging time)
Armenia			0.3	(24 hr)			0.3	(24 hr)		
Austria					1	(1 yr)				
Belarus	1	(20 min)	0.3	(24 hr)	0.3	(1 yr)	0.3	(24 hr)	0.3	(1 yr)
Belgium					2	(1 yr)				
Bulgaria			1	(24 hr)	1	(1 yr)				
Croatia					1/2	(24 hr) (guide/ limit value)	0.01	(24 hr)		
Cyprus			2	(98 %ile of daily values)	1	(1 yr)				
Czech Republic					0.5	(1 yr)				
Denmark					2	(1 yr)				
Finland					0.5	(1 yr)				
Germany					2	(1 yr)				
Greece					2	(24 hr)				
Hungary	0.3	(30 min)	0.3	(24 hr)						
Iceland					0.4	(1 yr)				
Ireland					2	(annual mean of 24 hr values)				
Italy					2	(annual mean of 24 hr values)				
Lithuania			0.3	(24 hr)			0.3	(24 hr)		
Netherlands			2	(98 %ile of 24 hr values)	0.5	(1 yr)				
Norway					0.5	(1 yr)				
Poland	5	(annual 99.8 %ile of 30 min values)	2	(annual 98 %ile of 24 hr values)	5	(1 yr)	0.7	(annual 99.8 %ile of 30 min values)	0.3	(annual 98 %ile of 24 hr values)
Portugal					2	(1 yr)				
Republic of Moldova			0.3	(24 hr)						
Romania			0.7	(24 hr)						
Russian Federation	1	(20 min)	0.3	(24 hr, month)	0.3	(1 yr)	0.3	(24 hr, month)	0.3	(1 yr)
Slovakia					0.5	(1 yr)				
Slovenia					1	(1 yr)				
Sweden					0.5	(1 yr)				
Switzerland					0.5	(1 yr)				
Turkey					2					
Ukraine			0.3	(24 hr)						
United Kingdom (by 2005)					0.5	(1 yr)				
United States of America					1.5	(3 month)				
Yugoslavia			1	(24 hr)	250	(1 yr)				

Party	Benzene						Carbon monoxide					
	Short-term		Medium-term		Long-term		Short-term		Medium-term		Long-term	
	Standard	(Averaging time)	Standard	(Averaging time)	Standard	(Averaging time)	Standard	(Averaging time)	Standard	(Averaging time)	Standard	(Averaging time)
Austria					10	(1 yr)	10000	(8 hr)				
Belgium							30000	(annual 98 %ile of 30 min)				
Bulgaria	10	(30 min)	10	(24 hr)	10	(1 yr)	60000	(30 min)	10000	(24 hr)		
Croatia			5/10	(8 hr) (guide/limit value)	2/5	(8 hr) (guide/limit value)	15000	(1 hr)	5000/8000	(24 hr) (guide/limit value)	1000/2000	(24 hr) (guide/limit value)
Czech Republic							10	(95 %ile of 30 min values)	5	(95 %ile of daily values)		
Finland							20	(1 hr)	8	(8 hr)		
Germany					10	(1 yr) (consider traffic restrictions)	30000	(98 %ile of 30 min values)			10000	(1 yr) (binding for licensing)
Hungary							10000	(30 min)	5000	(24 hr)		
Italy							15000/ 30000	(1 hr) (warning/ alarm)	10000	(8 hr)		
Lithuania							5000	(30 min)	3000	(24 hr)		
Netherlands					10	(1 yr)	40000	(99.99 %ile of hourly values)	6000	98 %ile of 8 hourly values)		
Norway							80	(15 min)	25	(1 hr)	10	(8 hr)
Portugal							40000/ 10000	(1 hr/ 8 hr)	1000	(24 hr guide)		
Romania	1500	(30 min)	800	(24 hr)			6000	(30 min)	2000	(24 hr)		
Slovakia									5000	(24 hr)	10000	(1 yr)
Slovenia							60/30	(30 min/ 1 hr)	10	(8 hr)		
Switzerland									8000	(24 hr) (one exceedance per year)		
United Kingdom (by 2005)					5 ppb	(1 yr)			10ppm	(8 hr)		
United States of America							40000	(1 hr)	10000	(8 hr)		
Yugoslavia							10000	(1 hr)	5000	(24 hr)	3000	(1 yr)

Party	Short-term				Long-term				Nitrogen dioxide Medium-term Standard	(Averaging time)	Long-term Standard	(Averaging time)
	Standard	(Averaging time)	Sulphur dioxide Medium-term Standard	(Averaging time)	Standard	(Averaging time)	Standard	(Averaging time)				
Austria	70/150/ 150	(97.5 %ile of 30 min values) (Apr - Oct)/ (Nov - Mar)/ (annual)	50/100/ 100	(24 hr) (Apr - Oct)/ (Nov - Mar)/ (annual)	20	(1 yr) (target value)	20	(1 yr) (target value)	30	(1 yr) (target value)	30	(1 yr) (target value)
Finland	150	(30 min)	100	(24 hr)	30	(1 yr)	30	(1 yr)	30	(1 yr)	30	(24 hr)
Hungary	100-150	(24 hr)			40-60	(annual mean of daily values)			135/50	(98 %ile of hourly values/median of hourly values)		
Norway	150	(1 hr)	50	(24 hr)	20	(1 yr)	20	(1 yr)	20	(1 yr)	20	(1 yr)
Poland	150/200	(annual 99.8 %ile of 30 min values) (national parks/ woodland areas)	75/100	(annual 98 %ile of 24 hr values) (national parks/ woodland areas)	15/20	(1 yr) (national parks/ woodland areas)	90/150	(annual 99.8 %ile of 30 min values) (national parks/ woodland areas)	20/30	(1 yr) (national parks/ woodland areas)	20/30	(annual 98 %ile of 24 hr values) (national parks/ woodland areas)
Republic of Moldova	500	(20 min)	50	(24 hr)	25	(1 yr)	85	(20 min)	30	(1 yr)	30	(24 hr)
Sweden					60							
Turkey					30	(1 yr)	85	(1 hr)				
Yugoslavia	150	(1 hr)	100	(24 hr)	30	(1 yr)	85	(1 hr)	50	(1 yr)	50	(24 hr)

TABLE 24 AMBIENT AIR QUALITY STANDARDS RELATING TO ECOLOGICAL EFFECTS
(IN MICROGRAMMES PER CUBIC METRE)

Party	Short-term Standard	(Averaging time)	Ozone Medium-term Standard	(Averaging time)	Long-term Standard	(Averaging time)
Belgium	200	(1 hr)	65	(24 hr)		
Denmark	200	(1 hr)	65	(24 hr)		
Finland	200	(1 hr)	65	(24 hr)		
Germany	200	(1 hr) (not binding)	65	(24 hr) (not binding)		
Hungary	110	(30 min)	100	(24 hr)		
Ireland	200	(1 hr)	65	(24 hr)		
Italy	200	(1 hr)	65	(24 hr)		
Luxembourg	200	(1 hr)	65	(24 hr)		
Norway	150	(1 hr)	60	(8 hr)	50	(6 months)
Poland	150/150	(annual 99.8 %ile of 30 min values) (national parks/ woodland areas)	65/65	(annual 98 %ile of 24 hr values) (national parks/ woodland areas)		
Portugal	200	(1 hr)	65	(24 hr)		
Republic of Moldova	60	(20 min)	30	(24 hr)	60	(Apr-Sep)
Slovenia			65	(24 hr)		
Spain			200	(24 hr)		
Sweden	200	(1 hr)	65	(24 hr)		
Yugoslavia	120	(1 hr)	65	(24 hr)	60	(1 yr)
European Community			200/65	(1 hr/ 24 hr)		

TABLE 25 FUEL QUALITY STANDARDS								
PARTY	FUEL OIL: LIGHT	FUEL OIL: MEDIUM	FUEL OIL: HEAVY	SOLID FUEL: HARD COAL	SOLID FUEL: LIGNITE	LEADED PETROL	UNLEADED PETROL	OTHER
	(%S)	(%S)	(%S)	(%S)	(%S)	g Pb/ litre	g Pb/ litre	
Armenia	0.6(low sulphur), 2.0(medium sulphur)	0.5(very low sulphur), 1.0(low sulphur), 2.0(medium sulphur), 3.5(high sulphur)	0.5(very low sulphur), 1.0(low sulphur), 2.0(medium sulphur), 3.5(high sulphur)			0.17 (A76), 0.37 (A93), phase-out expected 2008	0.013 (all grades)	0.3%S in diesel, 0.4%S in heavy diesel, 0.1%S in petrol, 0.03%S in kerosene
Austria	0.1(extra light), 0.2(light)	0.6	1	0.2 gS/MJ	0.2 gS/MJ	Phased out	0.01	0.05%S in diesel and petrol, 0.20, 0.6%S in liquid fuel <5MW/ 3-10MW
Belarus	0.02 - 0.1	0.05 - 0.3	0.5(domestic boiler and bunker fuel), 2.0 and 3.5 (fuel oil)	0.3 - 6.5		0.37 (Production discontinued in 1997)	0.013	
Belgium	0.2		1%, 3%	<1%, 1<S<1.5%, >1.5%	<1%, 1<S<1.5%, >1.5%	0.15, phase-out expected 2000	0.013	
Bulgaria	0.2 - 0.3	1.25	3.5	2.7	2.5 - 3.5	0.15, phase-out 2003	0.013	
Canada	no federal, 0.05(diesel)	no federal	no federal	no federal	no federal	0.026, leaded petrol phased out 1990	0.0005	
Croatia	0.2(general), 2.0(domestic)	1.0(general), 3.0(domestic)	1.0(general), 4.0(domestic)	1 g/MJ	1 G/MJ	0.150, phase-out expected 2005	0.013	0.5 gS/l in leaded petrol
Cyprus	1	4.0 (actual average 2.0)	4.0 (actual average 2.0)			0.4(super), 0.15(regular) Phase-out not yet decided	0.0015(?)	
Czech Republic	0.6(low sulphur), 2.0(medium sulphur)	0.5(very low sulphur), 1.0(low sulphur), 2.0(medium sulphur), 3.5(high sulphur)	0.5(very low sulphur), 1.0(low sulphur), 2.0(medium sulphur), 3.0(high sulphur)	0.78 g/MJ (domestic), 0.50 g/MJ (imported), Small combustion plant and use by the public only	1.07 g/MJ (domestic), 0.50 g/MJ (imported), Small combustion plant and use by the public only	0.03 - 0.15, phase-out expected 2001	0.013	
Denmark	1	1	1	0.9	0.9	phased out in 1994	0.013	
Finland	0.2	0.2	1	1	1	0.15, phased out in practice	0.013	
France			1 or 0.5% in polluted areas					
Germany	0.2 (0.05 for diesel)	0.16, used almost exclusively in plant with flue gas desulphurization or fluidized bed combustion	1.0, used almost exclusively in plant with flue gas desulphurization or fluidized bed combustion	1	1	0.15 (99.9% phased out, expect 100% by 2000)	0.013	
Greece	0.2							
Hungary	0.05	1	3.5	2.5 - 3.5 (for brown coal)	1.0 - 1.2	0.15, phase-out expected 1998	0.013	
Iceland	0.2			2	2	0.15	0.013	
Ireland	0.2 (0.005 for diesel)			2(in major urban areas)	2(in major urban areas)	0.15, phase-out expected 2000	0.013	5% benzene in petrol
Italy	0.3 (jet fuel), 0.2 (others)	0.2 (0.05 for diesel)	0.3 (<3MWh and residential), 1.0 (3 - 50 MWh), 3.0 (> 50 MWh and refineries)	1	1	0.15, phase-out expected 2002 - 2004	0.013	
Liechtenstein	0.2	prohibited	prohibited	1	3	phased out		
Lithuania	0.05	1.1	2.5	no limit	no limit	phased out 1998	0.013	
Luxembourg	0.2							
Netherlands	0.2 (0.05 for diesel)	no longer in use	1	1.2	1.2	0.15, but phased out 1996	0.013	
Norway	0.2 (0.05 for diesel)	0.19 (actual value)	0.63 and 2.36 (actual values for the two grades)			0.15, but phased out in practice in 1997	0.013	
Poland	0.3	1	3.5			0.05 - 0.15, phase-out expected 2005	0.013	
Portugal	1	2	3.0-3.5 (1 for low sulphur grade)			0.15, phase-out expected 2000	0.013	
Republic of Moldova	0.1	0.2 - 0.5	1.5 - 3.5	2.9		0.37	0.017	
Romania	0.25-1	2	1-Mar	3	3	0.18-0.36	0.078	
Russian Federation	0.5-3.5 for all heating oil, graded by sulphur content	0.5-3.5 for all heating oil, graded by sulphur content	0.5-3.5 for all heating oil, graded by sulphur content	no limit	no limit	0.17-0.37, phase-out expected 2008	0.1%S in petrol, 0.2-0.5%S in diesel	0.02% H2S and 0.036% mercaptan in natural gas and compressed gas, 0.003% H2S and 0.01% mercaptan in liquified gas
Slovakia			1	0.78 g/MJ	1.1 g/MJ	phased out	0.005	3% benzene in petrol
Slovenia	1 (0.6 for low sulphur)	1 (0.6 for low sulphur)	1 (0.6 for low sulphur)			0.15	0.013	
Spain	0.2 (0.05 for diesel)					phase-out expected 2005		
Sweden	0.2	sulphur tax controls content	sulphur tax controls content			leaded petrol phased out 1995	0.013	
Switzerland	0.2 (0.02 for diesel)	1.0 (2.8 if flue gas desulphurization)	1.0 (2.8 if flue gas desulphurization)	1.0 (3.0 if flue gas desulphurization)	1.0 (3.0 if flue gas desulphurization)	0.15, phase-out expected 2000	0.013	
The FYR of Macedonia								
Turkey	0.9	2	2.5	0.6	2.5	0.15 (RON 90), 0.40 (RON 95)	0.013	
Ukraine			0.4(low sulphur), 0.4-2.5(medium sulphur), 2.5-3(high sulphur)	1.3-2(anthracite slack + lean), 1.2-2.9(gas + long flame)		0.18(ethyalted only)		
United Kingdom	0.2 (0.05 for diesel)					0.15, phase-out expected 2000 except for specialist uses	0.013	
Yugoslavia	2	3	4			0.6, phase-out expected after 2000	0.02	
European Community	0.2/0.1 by 2000/2008, Common Position	0.2/0.1 by 2000/2008, Common Position, 0.05 for on-road vehicles	1 by 2003, Common Position			0.15-0.4/0.15 for current/2000, phase-out expected 2000	0.013/0.005 for current/ 2000 adopted	

PARTY	TABLE 26 EMISSION STANDARDS FOR SULPHUR DIOXIDE									
	Large plant site by site	Medium plant site by site	Small plant site by site	Smelters site by site	Refineries site by site	Iron and steel plant site by site	Cement plant site by site	Pulp mills site by site	Gas plant site by site	Other site by site
Armenia	400/200/200 for brown coal/other solid/liquid at O2 of 6%/6%/3% for >300 MWth	400/200/350 for brown coal/other solid/liquid at O2 of 6%/6%/3% for 50-300 MWth	400/400/1700 for brown coal/other solid/liquid at O2 of 6%/6%/3% for 10-50 MWth	300/300/500 for gas/liquid/solid	300/300/500 for gas/liquid/solid	300/100/500 for gas/liquid/solid	200	300-700	500	500 for brick production
Austria	none. BAT for new plant	none. BAT for new plant	none. BAT for new plant	none. BAT for new plant	none. BAT for new plant	none. BAT for new plant	none. BAT for new plant	none. BAT for new plant	none. BAT for new plant	none. BAT for new plant
Belarus	1700/1700/350 for >50 MWth	1700 for <50 MWth	1700 for 0.1 - 2 MW in Flemish Region	800	1300	500 in Flemish Region	750	500	500	none. BAT for new plant
Belgium	solid/liquid/gas oil	2000 - 400 for plant 100 - 500 MWth on solid, 1700 for plant <300 MWth on liquid	2000 for plant <100 MWth on solid, 1700 for plant <300 MWth on liquid	800	1800	500	400	500	500	500
Bulgaria	400/400 for solid/liquid plant >500 MWth	2000/1700 for 5-50 MWth for solid/liquid	2000/1700/350 for 10-50 MWth	400 for sintering of iron and manganese ores	1700	400 for hearth furnaces with oxygen enrichment	400 for firing clinker into rotating furnaces	2000 including emissions from combustion of sulfite extracts	500	500
Canada	900 for >73 MWth at 3% O2, or 90% removal	2000-400/1700-400/35 for >50 MWth for solid/liquid/gas	2000 for >73 MWth at 3% O2, or 90% removal	500	1700	400 for hearth furnaces with oxygen enrichment	400 for firing clinker into rotating furnaces	2000 including emissions from combustion of sulfite extracts	500	500
Croatia	400/35 for >50 MWth for solid/liquid/gas	2000/1700 for 5-50 MWth for solid/liquid	2000 for >73 MWth at 3% O2, or 90% removal	500	1700	400 for hearth furnaces with oxygen enrichment	400 for firing clinker into rotating furnaces	2000 including emissions from combustion of sulfite extracts	500	500
Cyprus	3% S in oil	2000/1700 for 5-50 MWth for solid/liquid	2000 for >73 MWth at 3% O2, or 90% removal	500	1700	400 for hearth furnaces with oxygen enrichment	400 for firing clinker into rotating furnaces	2000 including emissions from combustion of sulfite extracts	500	500
Czech Republic	500 for >300 MWth	1700 for 50 - 300 MWth	2000 for >73 MWth at 3% O2, or 90% removal	400 for sintering of iron and manganese ores	1700	400 for hearth furnaces with oxygen enrichment	400 for firing clinker into rotating furnaces	2000 including emissions from combustion of sulfite extracts	500	500
Denmark	400	1000	2000 for >73 MWth at 3% O2, or 90% removal	500	1000	400 for hearth furnaces with oxygen enrichment	400 for firing clinker into rotating furnaces	2000 including emissions from combustion of sulfite extracts	500	500
Finland	400	400	2000 for >73 MWth at 3% O2, or 90% removal	500	1000	400 for hearth furnaces with oxygen enrichment	400 for firing clinker into rotating furnaces	2000 including emissions from combustion of sulfite extracts	500	500
France	88/609/EEC applies	3400 for < 50MWth	2000 for >73 MWth at 3% O2, or 90% removal	500	1000	400 for hearth furnaces with oxygen enrichment	400 for firing clinker into rotating furnaces	2000 including emissions from combustion of sulfite extracts	500	500
Germany	400/400/35 for solid/liquid/natural gas >300 MWth	800*/680*/35 for solid/liquid/natural gas >100-300 MWth (* = target value)	1000*/7850*/35 for solid/liquid/natural gas 10-100 MWth (* = target value)	500	1000	400 for hearth furnaces with oxygen enrichment	400 for firing clinker into rotating furnaces	2000 including emissions from combustion of sulfite extracts	500	500
Hungary	400/400/35 for >500 MWth for solid/liquid/natural gas	2000-400/3650-650/35 for 100-500 MWth for solid/liquid/natural gas	2000/1700-400/35 for 10-100 MWth	500	1000	400 for hearth furnaces with oxygen enrichment	400 for firing clinker into rotating furnaces	2000 including emissions from combustion of sulfite extracts	500	500
Ireland	400/400/35 for >500 MWth for solid/liquid/natural gas	2000-400/3650-650/35 for 100-500 MWth for solid/liquid/natural gas	2000/1700-400/35 for 10-100 MWth	500	1000	400 for hearth furnaces with oxygen enrichment	400 for firing clinker into rotating furnaces	2000 including emissions from combustion of sulfite extracts	500	500
Italy	400/400/35 for >500 MWth for solid/liquid/natural gas	2000-400/1700-400/35 for 100-500 MWth for solid/liquid/natural gas	2000/1700-400/35 for 10-100 MWth	800/1800 for primary non-ferrous metals/mineral smelting	1700	1700/800 for coke oven gas/blast furnace gas	600/1500 for dry kilns/wet kilns	2000 including emissions from combustion of sulfite extracts	500	500
Lithuania	35/2700/1700/1700-400/2000 for >50 MWth for gas new/liquid new and existing/liquid new 50-300MWth/liquid new >300MWth/ solid new and existing	35/2700/2000 for 20-50 MWth for gas new/liquid new and existing/ solid new and existing	35/2700/2000 for 1-20 MWth for gas new/liquid new and existing/ solid new and existing	800/1800 for primary non-ferrous metals/mineral smelting	1700	1700/800 for coke oven gas/blast furnace gas	600/1500 for dry kilns/wet kilns	2000 including emissions from combustion of sulfite extracts	500	500

TABLE 27 EMISSION STANDARDS FOR NITROGEN OXIDES					
PARTY	POWER GENERATION (unit: mg/Nm ³)			INDUSTRIAL PROCESSES (unit: mg/m ³)	
	Large plant	Medium plant	Small plant	Nitric acid plant	Fertiliser production
Armenia	site by site	site by site	site by site	site by site	site by site
Austria	200/100/100 for coal/ liquid/ gas for >50 MWth at O ₂ of 6%/6%/3%	350/350/100 for coal/ liquid/ gas for 10-50 MWth at O ₂ of 6%/6%/3%	400/450/100 for coal/ liquid/ gas for 0.35-10 MWth at O ₂ of 6%/6%/3%		
Belarus	gas 290/125, fuel oil 350/250 for boilers prior to and after 1990	gas 300/200, fuel oil 380/250 for boilers prior to and after 1990	gas 850/600, fuel oil 850/750 for boilers prior to and after 1990	none, BAT for new plant	none, BAT for new plant
Belgium	800/450/450/450 in Walloon Region for solid/liquid/gas oil/gas. 200-950/150- 575/100-425 in Flemish Region for solid/liquid/gas	800/450/350 in Walloon Region for solid/liquid/gas. 400- 950/150-575/100-425 in Flemish Region for solid/liquid/gas	500/250/100 for new plant, 950/575/425 for existing plant for solid/liquid/gas 0.1-2 MWth in Flemish Region	450	
Bulgaria	650/450/350 for solid/liquid/gas	650/450/350 for solid/liquid/gas	650/450/350 for solid/liquid/gas	500	
Canada	600/410/190 for >73 MWth at 3% O ₂	152/186/335/465 for gas/ distillate oil/ residual oil(<0.35%N)/ residual oil(>0.35%N) for 29-73 MWth at 3% O ₂	100/150/335/410 for gas/ distillate oil/ residual oil(<0.35%N)/ residual oil(>0.35%N) for 2.9-29 MWth at 3% O ₂		
Croatia	650/450/350 for >5 MWth for solid/ liquid/gas	500/350/200 for 0.1-5 MWth for solid/ liquid/ gas	200 for <0.1 MWth for liquid and gas		
Cyprus	450/650 for new/existing				
Czech Republic	650	650	650	1.6 g/ton	500
Denmark	200	200	200	500	500
Finland	140	420	180 for gas-fired		
France	88/609/EEC applies				
Germany	200/150/100 for solid/liquid/natural gas >300 MWth	400/300/200 for solid/liquid/natural gas >50-300 MWth	500/450/200 for solid/liquid/natural gas 1-50 MWth	450	500
Hungary					
Iceland					380
Ireland	650/1300/450/350 for solid/ solid with <10% volatiles/ liquid/ gas	650/1300/450/350 for solid/ solid with <10% volatiles/ liquid/ gas	650/1300/450/350 for solid/ solid with <10% volatiles/ liquid/ gas		
Italy	200 for >500 MWth	650/450/350 for 300- 500 MWth for solid/liquid/gas	650/450/350 for 50- 300 MWth for solid/liquid/gas		
Liechtenstein					

PARTY	POWER GENERATION (unit: mg/Nm ³)			INDUSTRIAL PROCESSES (unit: mg/m ³)	
	Large plant	Medium plant	Small plant	Nitric acid plant	Fertiliser production
Lithuania	350-650 for >300 MWth	350-650 for 50-300 MWth	350-650 for 1-50 MWth	site by site	site by site
Netherlands	200/120/60/100 for >300 MWth for solid/liquid/gas in boilers/gas in furnaces	100/120/60/100 for <300 MWth for solid/liquid/gas in boilers/gas in furnaces	100/120/60/100 for <300 MWth for solid/liquid/gas in boilers/gas in furnaces		
Norway	site by site	site by site	site by site	site by site	site by site
Portugal	88/609/EEC applies	1500	1500	450	1500
Republic of Moldova	353	206	134		
Romania	450/400/350 for >500 MWth for liquid/ solid/ gas	450/400/350 for 100-500 MWth for liquid/ solid/ gas	450/500/350 for <100 MWth for liquid/ solid/ gas	500 if mass flow >5 kg/h	500 if mass flow >5 kg/h
Russian Federation	125/250/300-370/350-700 for >80 MWth boilers for natural gas/ fuel oil/ brown coal/ hard coal, 50/100 for < 200 MWth turbines for gas/ liquid	210-380 for steam generators and hot water boilers	250-750 for 0.1-3.15 MWth boilers		
Slovakia	550/450 for solid/liquid	650/450 for solid/liquid	650/500 for solid/liquid	300	
Slovenia	200/150 for >300 MWth for solid/liquid, 400/300 for <300 MWth for solid/liquid	500		450	500
Spain	65-130/450/350 for solid/ liquid/ gas			205	
Sweden	30 mg NO _x / MJ input for >500 MWth				
Switzerland	150 for >150 MWth	300 for 50-100 MWth	450 for <50 MWth	250 for mass flow <2500 g/h	250 for mass flow <2500 g/h
Turkey	150/110/10 for new for solid/liquid/gas, 250/110/10 for existing for solid/liquid/gas	150/110/10 for new for solid/liquid/gas, 250/110/10 for existing for solid/liquid/gas	150/110/10 for new for solid/liquid/gas, 250/110/10 for existing for solid/liquid/gas		
United Kingdom	88/609/EEC	site by site for 20-50 MWth		site by site	site by site
Yugoslavia	450 for > 300 MWth	800 for 50-300 MWth	1000 for 1-50 MWth	450	
European Community	500-2000/500-1700/35 for >50 MWth for solid/ liquid/ gas				

PARTY	MOBILE SOURCES (unit: mg/km)				
	Petrol-fuelled light-duty vehicles	Petrol-fuelled heavy-duty vehicles	Diesel-fuelled light-duty vehicles	Diesel-fuelled heavy-duty vehicles	Other
Armenia	No standard	No standard	No standard	No standard	site by site
Austria	454 mg NOx/km	5300 mg NOx/km	750 mg NOx/km	5300 mg NOx/km	500 for cement production, 500-1500 for glass production, 200-300 for brick production, 500/350/250 for coal/liquid/ gas in iron and steel production
Belarus	No standard	No standard	No standard	No standard	none, BAT for new plant
Belgium	225/225/270/315 for passenger cars/LDV I/LDV II/LDV III	not applicable where mass > 3.5 tons	630/630/900/1080 for passenger cars/LDV I/LDV II/LDV III	7.0 g/kWh	
Bulgaria					1500 for gypsum, limestone
Canada	250	4000 mg/brake horse power.hour	620	4000 mg/brake horse power.hour	2.3 kg NOx/ ton of clinker
Croatia					
Cyprus					
Czech Republic	500 including VOC		700/900 including VOC for indirect injection/direct injection	7 g/kWh	350/500/400/400 for waste combustion up to 1 ton per hour/hazardous waste combustion/steel production/electric arc furnaces
Denmark	70/220/EEC applies		70/220/EEC applies	88/77/EEC applies	
Finland	0.5/0.7 including VOC including small vans/large vans		0.7/1.2 including VOC including small vans/large vans, 0.9-1.6 including VOC for direct injection	7 g/kWh	9.2 g/kWh for off-road sources
France					300 as general rule, 500-1500 for glassworks, 1200-1800 for cement
Germany	91/441/EEC, 94/12/EEC and 93/59/EEC apply		91/441/EEC, 94/12/EEC and 93/59/EEC apply	91/542/EEC applies	400-500 for iron and steel, 800/500 for cement existing/new. 97/24/EEC applies for motorcycles
Hungary					400 for waste incineration
Iceland	620	620	620	620	
Ireland	91/441/EEC, 94/12/EEC and 93/59/EEC apply		91/441/EEC, 94/12/EEC and 93/59/EEC apply	91/542/EEC applies	
Italy	500/700 including VOC for passenger cars/LDV		700/1200 including VOC for passenger cars/LDV	7000	400-600 for gas turbines, 1200-3500 for glass, 1800-3000 for cement, 200-600 for incineration, 500-2000 for stationary engines
Liechtenstein	620		620	9 g/kWh	

PARTY	MOBILE SOURCES (unit: mg/km)				Other
	Petrol-fuelled light-duty vehicles	Petrol-fuelled heavy-duty vehicles	Diesel-fuelled light-duty vehicles	Diesel-fuelled heavy-duty vehicles	
Lithuania					
Netherlands	91/441/EEC, 94/12/EEC and 93/59/EEC apply		91/441/EEC, 94/12/EEC and 93/59/EEC apply	91/542/EEC applies	
Norway	500 including VOC		700-1600 including VOC, depending on size of engine and injection type	7 g/kWh	
Portugal	91/441/EEC, 94/12/EEC and 93/59/EEC apply		91/441/EEC, 94/12/EEC and 93/59/EEC apply	91/542/EEC applies	
Republic of Moldova	500	1500	1000	4500	
Romania					
Russian Federation					
Slovakia					
Slovenia					
Spain					
Sweden	91/441/EEC, 94/12/EEC and 93/59/EEC apply		91/441/EEC, 94/12/EEC and 93/59/EEC apply	7 g/kWh	
Switzerland	standards in 94/12/EEC and 96/69/EEC are applied		standards in 94/12/EEC are applied	stage 2 standards in 91/542/EEC are applied	
Turkey	0.97 g/test including VOC		1360 including VOC	14.4 g/kWh	
United Kingdom	91/441/EEC, 94/12/EEC and 93/59/EEC apply		91/441/EEC, 94/12/EEC and 93/59/EEC apply	91/542/EEC applies	site by site
Yugoslavia					
European Community	150/80 for passenger cars in 2000/2005, 150/180/210 for 2000 category I LDV/ 2001 category II LDV/ 2001 category III LDV, 80/100/110 for 2005 category I/ 2006 category II/ 2006 category III	these vehicles do not exist on the EC market	50/25 for passenger cars in 2000/2005, 50/65/78 for 2000 category I LDV/ 2001 category II LDV/ 2001 category III LDV, 25/33/39 for 2005 category I/ 2006 category II/ 2006 category III	7 g/kWh, expected to be adopted	

TABLE 28 EMISSION STANDARDS FOR VOLATILE ORGANIC COMPOUNDS					
PARTY	STATIONARY SOURCES (unit: mg/Nm ³)	MOBILE SOURCES (unit: g/km)	FUEL VOLATILITY (unit: g/test, %RVP)	EVAPORATION FROM ORGANIC SUBSTANCES (unit: mg/m ³)	OTHER
Armenia	site by site	HC		site by site	
Austria	20-50				
Belarus	no standard	600/100/1200/3000 (ppm)	66.66 kPa saturated petrol vapour pressure at 38°C	no standard	
Belgium			80 kPa/95 kPa for unleaded /leaded petrol		
Bulgaria	20-200				
Canada	1000 kg/y for plastics processing, stage II petrol vapour recovery			55 g/m ² for car production, 75 g/m ² for LDV, paint solvent content for vehicle refinishing, 20 kg/ton of clothes cleaned for dry cleaning	
Croatia	20				
Cyprus	50 for large plant				
Czech Republic		2000/1200/800 ppm for pre-1972/1973-1986/post 1986. Catlyser cars determined from producer specification + 50%. In operation new petrol VOC+NO _x 500 g/km, new diesel 1.1 g/kWh	950/1150 VLI (as per EN 228; 1993) for June-September/October-May		
Denmark	100	70/220/EEC, 88/77/EEC and 97/68 apply		94/63/EEC petrol vapour controls apply	
Finland		2 g/test for evaporative emissions, 1.1 g/kWh for diesel HDV, 1.3 g/kWh for off-road sources, see also NO _x table			
France	150 as general, 20 for carcinogens				
Germany	20/100/150 according to risk for non-carcinogenic	91/441/EEC, 94/12/EEC, 93/59/EEC, 91/542/EEC and 97/24/EEC apply	90 kPa/70 kPa for October-March/April-September. 60 kPa from 2000	2 g/test. 91/441/EEC applies	
Hungary		1.1 g/kWh for vehicles of small emission, 0.98 g/MJ for diesel fuelled tractors and slow vehicles			
Iceland		250			
Ireland	site by site	91/441/EEC, 94/12/EEC, 93/59/EEC, 91/542/EEC and 97/24/EEC apply			

PARTY	STATIONARY SOURCES (unit: mg/Nm ³)	MOBILE SOURCES (unit: g/km)	FUEL VOLATILITY (unit: g/test, %RVP)	EVAPORATION FROM ORGANIC SUBSTANCES (unit: mg/m ³)	OTHER
Italy	300 for refineries, 600 for stationary sources generally	see NOx table, 1.1 for HDV		35000 for petrol vapour recovery, 120 g/m ² for automobile production, 40 g/m ² for paint application on flat wood	
Liechtenstein	20-150	250			
Lithuania	standards in preparation consistent with EC	standards in preparation consistent with EC	standards in preparation consistent with EC	standards in preparation consistent with EC	
Netherlands	permit	91/441/EEC, 94/12/EEC, 93/59/EEC, 91/542/EEC and 97/24/EEC apply	permit	permit	
Norway	site by site	see NOx		site by site	site by site
Portugal	50	91/441/EEC, 94/12/EEC, 93/59/EEC, 91/542/EEC and 97/24/EEC apply			
Romania	20/100/150 for three classes according to risk			20/100/150 for three classes according to risk	
Russian Federation		0.8-8.2 depending on engine and fuel type			
Slovakia	50	0.4			
Slovenia	20/100/150 according to risk for non-carcinogenic				
Sweden	94/63/EC is applied to petrol distribution. 85% recovery required for vehicle refuelling	91/441/EEC, 94/12/EEC, 93/59/EEC, 91/542/EEC and 97/24/EEC apply		20 for degreasing and printing	
Switzerland	20/100/150 according to risk for non-carcinogenic	standards in 94/12/EEC, 96/69/EEC and 91/542/EEC are applied			
Turkey		see NOx			
United Kingdom	site by site	91/441/EEC, 94/12/EEC, 93/59/EEC, 91/542/EEC and 97/24/EEC apply		site by site	site by site
European Community				20-150 depending on sector	

Notes to figures provided

Figure XIV:

Fifth percentile within the EMEP 150 km grid of the maximum critical load of sulphur (critical load of acidity) (**** means CL > 9999 eq/ha/yr)

Figure XV:

Fifth percentile within the EMEP 150 km grid of the critical load of nutrient nitrogen

Figure XVI:

Percentage of ecosystems protected from acidification in every EMEP 150 km grid cell for the years 1980, 1990, 2000 and 2010 (current reduction plans scenario) (in the white grid cells the protection is 100%)

CLmax(S) (5th percentile)

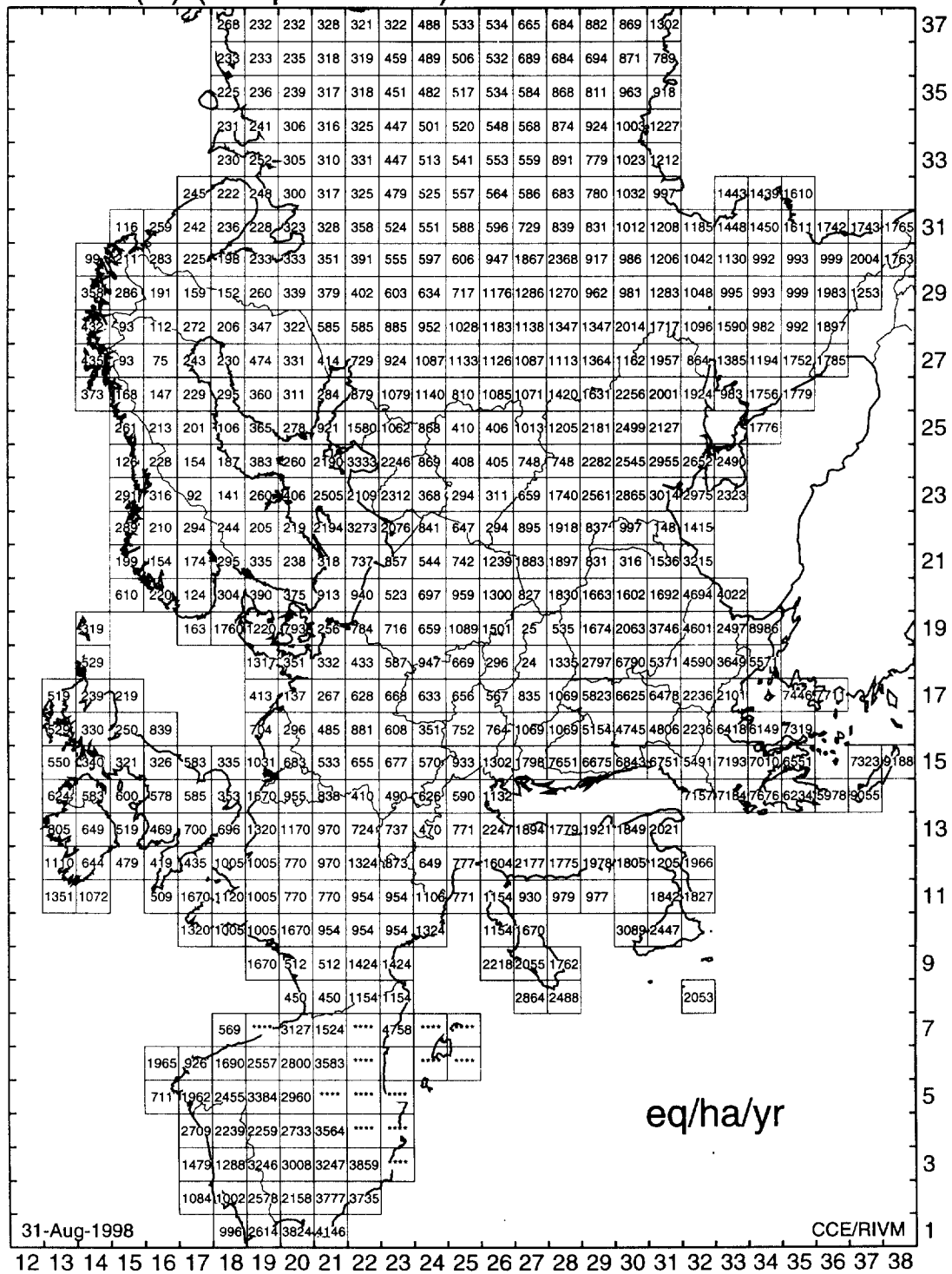


Figure XIV: Map of critical loads of acidity

CLnut(N) (5th percentile)

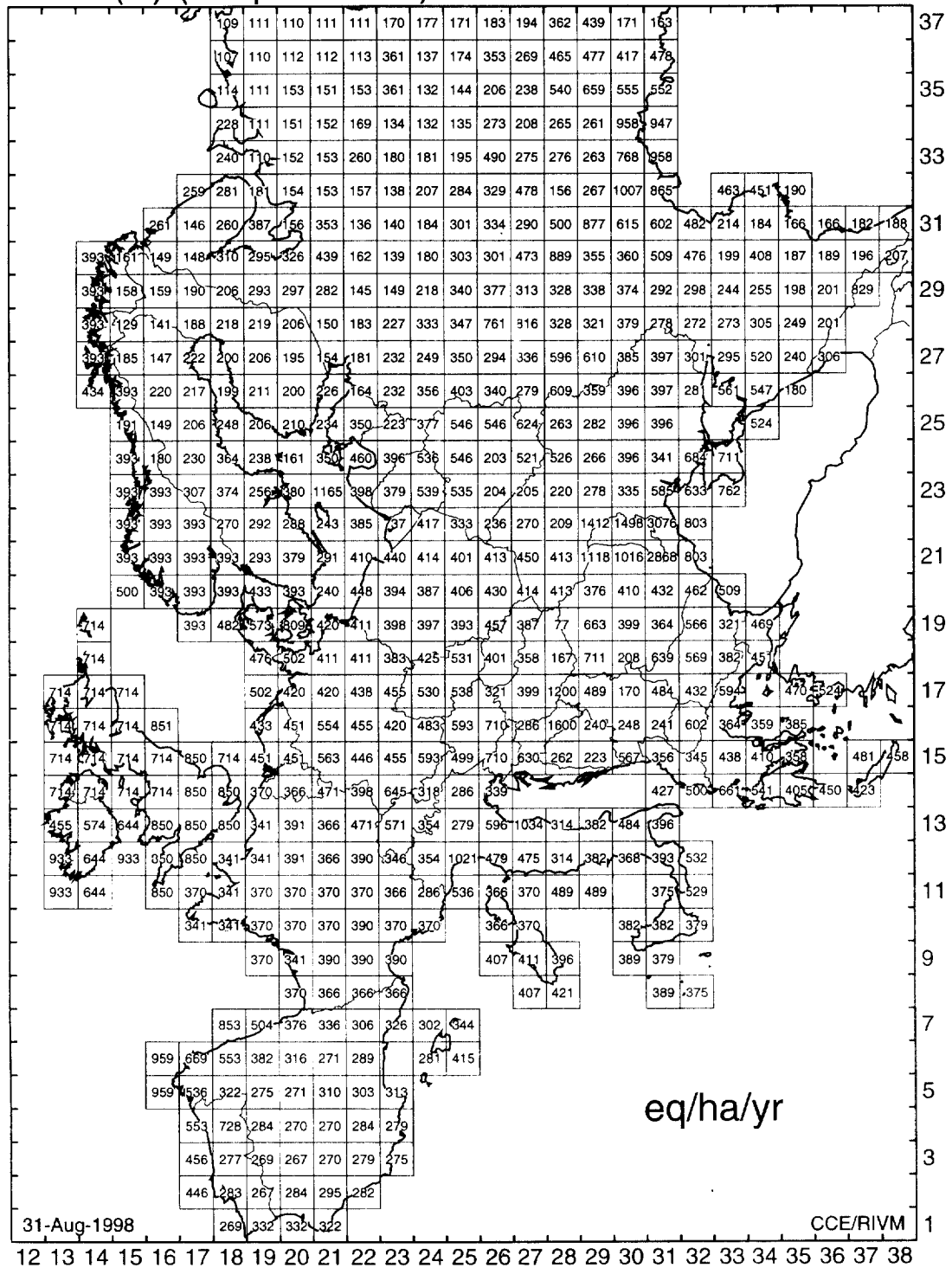


Figure XV: Map of critical loads of nutrient nitrogen

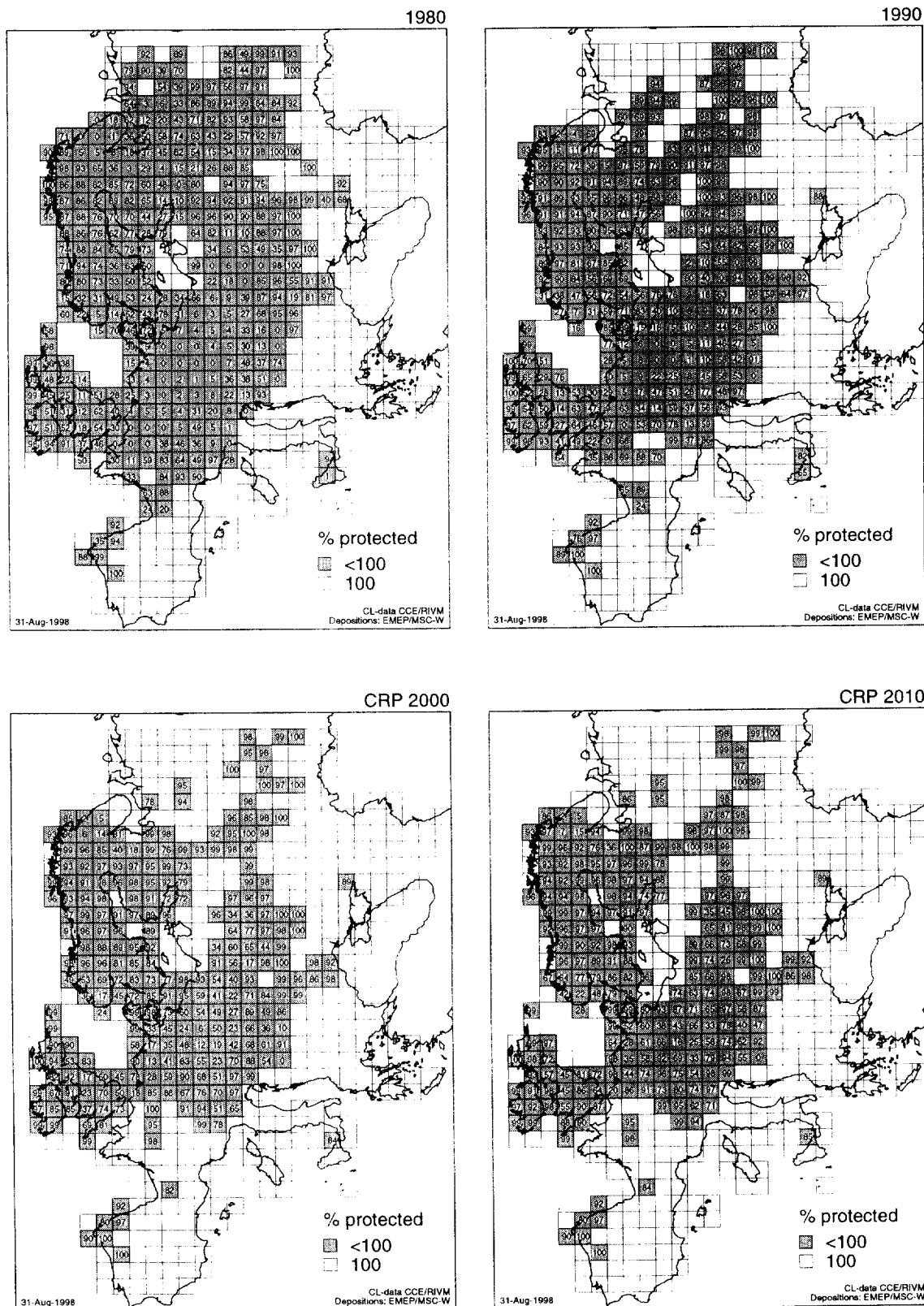


Figure XVI: Maps of critical loads of exceedances for 1980/1990/2000/2010
(on current reduction plans)