

ADJUSTMENT TO ANNEX II TO THE 1999 GOTHENBURG PROTOCOL TO ABATE
ACIDIFICATION, EUTROPHICATION AND GROUND-LEVEL OZONE

Annex II

EMISSION CEILINGS

(as of 31 December 2013)

The emission ceilings listed in the tables below relate to the provisions of article 3, paragraphs 1 and 10, of the present Protocol. The 1980 and 1990 emission levels and the percentage emission reductions listed are given for information purposes only.

Table 1
Emission ceilings for sulphur (thousands of tonnes of SO₂ per year)

Party	Emission levels		Emission ceilings for 2010	Percentage emission reductions for 2010 (base year 1990)
	1980	1990		
Armenia	141	73	73	0%
Austria	400	91	39	-57%
Belarus	740	637	480	-25%
Belgium	828	372	106	-72%
Bulgaria	2050	2008	856	-57%
Canada national ^{al}	4643	3236		
PEMA (SOMA)	3135	1873		
Croatia	150	180	70	-61%
Cyprus ^{el}	28	46	39	-15%
Czech Republic	2257	1876	283	-85%
Denmark	450	182	55	-70%
Finland	584	260	116	-55%
France	3208	1269	400	-68%
Germany	7514	5313	550	-90%
Greece	400	509	546	7%
Hungary	1633	1010	550	-46%
Ireland	222	178	42	-76%
Italy	3757	1651	500	-70%
Latvia	-	119	107	-10%
Liechtenstein	0.39	0.15	0.11	-27%
Lithuania	311	222	145	-35%
Luxembourg	24	15	4	-73%
Netherlands	490	202	50	-75%
Norway	137	53	22	-58%
Poland	4100	3210	1397	-56%
Portugal	266	362	170	-53%

Party	Emission levels		Emission ceilings for 2010	Percentage emission reductions for 2010 (base year 1990)
	1980	1990		
Republic of Moldova	308	265	135	-49%
Romania	1055	1311	918	-30%
Russian Federation ^{b/}	7161	4460		
PEMA	1062	1133	635	-44%
Slovakia	780	543	110	-80%
Slovenia	235	194	27	-86%
Spain ^{b/}	2959	2182	774	-65%
Sweden	491	119	67	-44%
Switzerland	116	43	26	-40%
The former Yugoslav Republic of Macedonia ^{f/}	-	139.7	110	-21%
Ukraine	3849	2782	1457	-48%
United Kingdom	4863	3731	625	-83%
United States of America ^{e/}	-	20875 ^{d/}	^{d/}	^{d/}
European Community	26456	16436	4059	-75%

^{a/} Upon ratification, acceptance or approval of, or accession to, the present Protocol, Canada shall submit an emission ceiling for sulphur, either at a national level or for its PEMA, and will endeavour to provide a ceiling for 2010. The PEMA for sulphur will be the sulphur oxides management area (SOMA) that was designated pursuant to annex III to the Protocol on Further Reduction of Sulphur Emissions adopted at Oslo on 14 June 1994 as the South-east Canada SOMA. This is an area of 1 million km₂ which includes all the territory of the provinces of Prince Edward Island, Nova Scotia and New Brunswick, all the territory of the province of Quebec south of a straight line between Havre-St. Pierre on the north coast of the Gulf of Saint Lawrence and the point where the Quebec-Ontario boundary intersects the James Bay coastline, and all the territory of the province of Ontario south of a straight line between the point where the Ontario-Quebec boundary intersects the James Bay coastline and Nipigon River near the north shore of Lake Superior.

^{b/} Figures apply to the European part within the EMEP area.

^{c/} Upon ratification, acceptance or approval of, or accession to, the present Protocol, the United States of America shall provide for inclusion in this annex: (a) specific emission reduction measures applicable to mobile and stationary sources of sulphur to be applied either nationally or within a PEMA if it has submitted a PEMA for sulphur for inclusion in [annex III](#); (b) a value for total estimated sulphur emission levels for 1990, either national or for the PEMA; (c) an indicative value for total sulphur emission levels for 2010, either national or for the PEMA; and (d) associated estimates of the percentage reduction in sulphur emissions. Item (b) will be included in the table and items (a), (c) and (d) will be included in a footnote to the table.

^{d/} Upon acceptance of the Protocol in 2004, the United States of America provided an indicative target for 2010 of 16,013,000 tons for total sulphur emissions from the PEMA identified for sulphur, the 48 contiguous United States and the District of Columbia. This figure converts to 14,527,000 tonnes. The United States also provided the value for total SO₂ emission levels for 1990 for the PEMA: 23,011,000 tons. This figure converts to 20,875,000

tonnes. The provided figures for 2010 and 1990 indicate 30% emission reduction during that period. Upon acceptance in 2004, the United States of America also provided specific emission reduction measures applicable to mobile and stationary sources to be applied within the submitted PEMA as required under sub-paragraph (a) of footnote c. Those measures are available at: http://www.unece.org/fileadmin/DAM/env/documents/2014/AIR/EB/2004-UnitedStates-Instrument_of_Acceptance.pdf.

^{e/} Figures for Cyprus adopted at the twenty-third session of the Executive Body

^{f/} Figures for the former Yugoslav Republic of Macedonia adopted at the thirty-second session of the Executive Body.

Table 2
Emission ceilings for nitrogen oxides (thousands of tonnes of NO₂ per year)

Party	Emission levels 1990	Emission ceilings for 2010	Percentage emission reductions for 2010 (base year 1990)
Armenia	46	46	0%
Austria	194	107	-45%
Belarus	285	255	-11%
Belgium	339	181	-47%
Bulgaria	361	266	-26%
Canada ^{al/}	2104		
Croatia	87	87	0%
Cyprus ^{el/}	18	23	28%
Czech Republic	742	286	-61%
Denmark	282	127	-55%
Finland	300	170	-43%
France	1882	860	-54%
Germany	2693	1081	-60%
Greece	343	344	0%
Hungary	238	198	-17%
Ireland	115	65	-43%
Italy	1938	1000	-48%
Latvia	93	84	-10%
Liechtenstein	0.63	0.37	-41%
Lithuania	158	110	-30%
Luxembourg	23	11	-52%
Netherlands	580	266	-54%
Norway	218	156	-28%
Poland	1280	879	-31%
Portugal	348	260	-25%
Republic of Moldova	100	90	-10%
Romania	546	437	-20%
Russian Federation ^{bl/}	3600		
PEMA	360	265	-26%
Slovakia	225	130	-42%
Slovenia	62	45	-27%
Spain ^{bl/}	1113	847	-24%
Sweden	338	148	-56%
Switzerland	166	79	-52%
The former Yugoslav Republic of Macedonia ^{fl/}	46.4	39	-16%
Ukraine	1888	1222	-35%

Party	Emission levels 1990	Emission ceilings for 2010	Percentage emission reductions for 2010 (base year 1990)
United Kingdom	2673	1181	-56%
United States of America ^{c1/}	9140 ^{d1/}	^{d1/}	^{d1/}
European Community	13161	6671	-49%

^{a1/} Upon ratification, acceptance or approval of, or accession to, the present Protocol, Canada shall submit 1990 emission levels and 2010 emission ceilings for nitrogen oxides, either at a national level or for its PEMA for nitrogen oxides, if it has submitted one.

^{b1/} Figures apply to the European part within the EMEP area.

^{c1/} Upon ratification, acceptance or approval of, or accession to, the present Protocol, the United States of America shall provide for inclusion in this annex: (a) specific emission reduction measures applicable to mobile and stationary sources of nitrogen oxides to be applied either nationally or within a PEMA if it has submitted a PEMA for nitrogen oxides for inclusion in annex III; (b) a value for total estimated nitrogen oxide emission levels for 1990, either national or for the PEMA; (c) an indicative value for total nitrogen oxide emission levels for 2010, either national or for the PEMA; and (d) associated estimates of the percentage reduction in nitrogen oxide emissions. Item (b) will be included in the table and items (a), (c) and (d) will be included in a footnote to the table.

^{d1/} Upon acceptance of the Protocol in 2004, the United States of America provided an indicative target for 2010 of 6,897,000 tons for total NO_x emissions from the PEMA identified for NO_x, Connecticut, Delaware, the District of Columbia, Illinois, Indiana, Kentucky, Maine, Maryland, Massachusetts, Michigan, New Hampshire, New Jersey, New York, Ohio, Pennsylvania, Rhode Island, Vermont, West Virginia, and Wisconsin. This figure converts to 6,257,000 tonnes. The United States also provided the value for total NO_x emission levels for 1990 for the PEMA: 10,075,000 tons. This figure converts to 9,140,000 tonnes. The provided figures for 2010 and 1990 indicate 32% emission reduction during that period. Upon acceptance in 2004, the United States of America also provided specific emission reduction measures applicable mobile and stationary sources to be applied within the submitted PEMA as required under sub-paragraph (a) of footnote c1. Those measures are available at: http://www.unece.org/fileadmin/DAM/env/documents/2014/AIR/EB/2004-UnitedStates-Instrument_of_Acceptance.pdf.

^{e1/} Figures for Cyprus adopted at the twenty-third session of the Executive Body.

^{f1/} Figures for the former Yugoslav Republic of Macedonia adopted at the thirty-second session of the Executive Body.

Table 3
Emission ceilings for ammonia (thousands of tonnes of NH₃ per year)

Party	Emission levels 1990	Emission ceilings for 2010	Percentage emission reductions for 2010 (base year 1990)
Armenia	25	25	0%
Austria	81	66	-19%
Belarus	219	158	-28%
Belgium	107	74	-31%
Bulgaria	144	108	-25%
Croatia	37	30	-19%
Cyprus ^{b2/}	7	9	29%
Czech Republic	156	101	-35%
Denmark	122	69	-43%
Finland	35	31	-11%
France	814	780	-4%
Germany	764	550	-28%
Greece	80	73	-9%
Hungary	124	90	-27%
Ireland	126	116	-8%
Italy	466	419	-10%
Latvia	44	44	0%
Liechtenstein	0.15	0.15	0%
Lithuania	84	84	0%
Luxembourg	7	7	0%
Netherlands	226	128	-43%
Norway	23	23	0%
Poland	508	468	-8%
Portugal	98	108	10%
Republic of Moldova	49	42	-14%
Romania	300	210	-30%
Russian Federation ^{a2/}	1191		
PEMA	61	49	-20%
Slovakia	62	39	-37%
Slovenia	24	20	-17%
Spain ^{a2/}	351	353	1%
Sweden	61	57	-7%
Switzerland	72	63	-13%
The former Yugoslav Republic of Macedonia ^{c2/}	13.7	12	-12%
Ukraine	729	592	-19%

Party	Emission levels 1990	Emission ceilings for 2010	Percentage emission reductions for 2010 (base year 1990)
United Kingdom	333	297	-11%
European Community	3671	3129	-15%

^{a2/} Figures apply to the European part within the EMEP area.

^{b2/} Figures for Cyprus adopted at the twenty-third session of the Executive Body.

^{c2/} Figures for the former Yugoslav Republic of Macedonia adopted at the thirty-second session of the Executive Body.

Table 4
Emission ceilings for volatile organic compounds (thousands of tonnes of VOC per year)

Party	Emission levels 1990	Emission ceilings for 2010	Percentage emission reductions for 2010 (base year 1990)
Armenia	81	81	0%
Austria	351	159	-55%
Belarus	533	309	-42%
Belgium	324	144	-56%
Bulgaria	217	185	-15%
Canada ^{a3/}	2880		
Croatia	105	90	-14%
Cyprus ^{e3/}	18	14	-22%
Czech Republic	435	220	-49%
Denmark	178	85	-52%
Finland	209	130	-38%
France	2957	1100	-63%
Germany	3195	995	-69%
Greece	373	261	-30%
Hungary	205	137	-33%
Ireland	197	55	-72%
Italy	2213	1159	-48%
Latvia	152	136	-11%
Liechtenstein	1.56	0.86	-45%
Lithuania	103	92	-11%
Luxembourg	20	9	-55%
Netherlands	502	191	-62%
Norway	310	195	-37%
Poland	831	800	-4%
Portugal	640	202	-68%
Republic of Moldova	157	100	-36%
Romania	616	523	-15%
Russian Federation ^{b3/}	3566		
PEMA	203	165	-19%
Slovakia	149	140	-6%
Slovenia	42	40	-5%
Spain ^{b3/}	1094	669	-39%
Sweden	526	241	-54%
Switzerland	292	144	-51%
The former Yugoslav Republic of Macedonia ^{f3/}	34.4	30	-13%

Party	Emission levels 1990	Emission ceilings for 2010	Percentage emission reductions for 2010 (base year 1990)
Ukraine	1369	797	-42%
United Kingdom	2555	1200	-53%
United States of America ^{e3/}	8109 ^{d3/}	^{d3/}	^{d3/}
European Community	15353	6600	-57%

^{a3/} Upon ratification, acceptance or approval of, or accession to, the present Protocol, Canada shall submit 1990 emission levels and 2010 emission ceilings for volatile organic compounds, either at a national level or for its PEMA for volatile organic compounds, if it has submitted one.

^{b3/} Figures apply to the European part within the EMEP area.

^{c3/} Upon ratification, acceptance or approval of, or accession to, the present Protocol, the United States of America shall provide for inclusion in this annex: (a) specific emission reduction measures applicable to mobile and stationary sources of volatile organic compounds to be applied either nationally or within a PEMA if it has submitted a PEMA for volatile organic compounds for inclusion in [annex III](#); (b) a value for total estimated volatile organic compound emission levels for 1990, either national or for the PEMA; (c) an indicative value for total volatile organic compound emission levels for 2010, either national or for the PEMA; and (d) associated estimates of the percentage reduction in volatile organic compound emissions. Item (b) will be included in the table and items (a), (c) and (d) will be included in a footnote to the table

^{d3/} Upon acceptance of the Protocol in 2004, the United States of America provided an indicative target for 2010 of 4,972,000 tons for total VOC emissions from the PEMA identified for VOCs, Connecticut, Delaware, the District of Columbia, Illinois, Indiana, Kentucky, Maine, Maryland, Massachusetts, Michigan, New Hampshire, New Jersey, New York, Ohio, Pennsylvania, Rhode Island, Vermont, West Virginia, and Wisconsin. This figure converts to 4,511,000 tonnes. The United States also provided the value for total VOC emission levels for 1990 for the PEMA: 8,939,000 tons. This figure converts to 8,109,000 tonnes. The provided figures for 2010 and 1990 indicate 44% emission reduction during that period. Upon acceptance in 2004, the United States of America also provided specific emission reduction measures applicable to mobile and stationary sources to be applied within the submitted PEMA as required under sub-paragraph (a) of footnote c3. Those measures are available at: http://www.unece.org/fileadmin/DAM/env/documents/2014/AIR/EB/2004-UnitedStates-Instrument_of_Acceptance.pdf.

^{e3/} Figures for Cyprus adopted at the twenty-third session of the Executive Body.

^{f3/} Figures for the former Yugoslav Republic of Macedonia adopted at the thirty-second session of the Executive Body.