

In-depth review of the Protocol on HMs

This note is the revision of Note IC5/09 (14 March 2009), which was circulated and discussed at the 23 meeting of the Committee. The present note includes the changes made in the light of that discussion, the e-mail discussion shortly after the meeting, the answers to the 2008 Questionnaire provided by the European Community on June 26th 2009, following Decision 2008/13 of the EB and officially reported emission data (2009 reporting round), which are available since June 29th, from WebDab on the CEIP site. The new emission data set contains the 2007 emissions and re-calculated emissions from the reference year and the years 2003 – 2006. The EC reply is incorporated in Tables 2 – 6 and, through minor changes, in sections I – IV, VI and VII. The new emission data resulted in particular in complete revision of Table 1 and changes in the sections I and V and in the conclusions of section VII. As discussed in London two tables are prepared for that last section, to summarize the results of the IDR, for emission related obligations respectively technology and strategy related obligations.

Text, which is new compared with Note IC5/09, is presented in italics (narrative part) or underlined (tables), except (to avoid illegibility) for the numbers in Table 1, where apart from the added 2007 data, over 50% of the emission data for previous years has been changed.

When words or paragraphs, in the old or the new text of the narrative part, are placed between square brackets, they either

- ***reflect preliminary data (e.g. enumeration of Parties),***
- ***are not meant to be included in the final report (e.g. reference to tables or clarifying remarks for information of the Committee), or***
- ***deal with issues that are not yet discussed by the Committee.***

Introduction to the original note IC9/08

This note presents information to the Committee for the in-depth review of the Protocol on HMs, derived from the responses of the Parties to the 2008 Questionnaire on Strategies and Policies.

The in-depth review involves an assessment of the obligations, identified for priority review in Note IC5/08/rev.1.

The following tables are prepared for the Committee to evaluate compliance by the Parties. They will not be part of the reporting on the in-depth review to the Executive Body.

In the second column the responses to the selected questions are shown. In most cases the complete text of the answer is given, sometimes a summary is made. The column 'Comments' starts with reference to the [results of the first in-depth](#) review by the Committee of the Protocol on HM in 2006, as presented in its 9th Report (EB.AIR/2006/3/Add.2), followed by comments on the 2008 reply. In the reference to the first IDR the letter *c.* is used for 'In compliance', *n.c.* for 'In non-compliance', *n.e.p.* for 'no evaluation possible' in case of unclear or missing answers (followed by either '*incomplete info*' or '*no reply*') and '*no assessment*' to indicate that the Protocol came into force for a Party after the reporting deadline (31 March 2006) for the 2006 Questionnaire, which was used by the Committee to prepare the 2006 review, or to indicate that, at that time, a specific obligation was not yet compulsory for a Party. Finally, the indication '*voluntarily implemented*' is used if a Party already complies with an obligation that was not yet in force at the time of the review.

If a Party's response to the 2008 Questionnaire differs from the similar response given to the 2006 Questionnaire, [the 2006 answer is indicated](#) in the table only to highlight specific uncertainties or in a situation where it would have resulted in a more positive assessment for that Party. In that case, instead of a conclusion purely based on the 2008 comments, the information from the 2006 IDR is also taken into account. Subsequently, the conclusion in the last column is presented between square brackets.

In general 'In compliance' (or 'In non-compliance') in that last column represents the situation both at the time the obligation came into force for that Party and at the time of the present review, unless indicated otherwise in the column 'Comments'.

IN-DEPTH REVIEW OF COMPLIANCE BY PARTIES WITH THEIR OBLIGATIONS UNDER THE PROTOCOL ON HEAVY METALS

1. As requested by the Executive Body in its 2008 workplan (ECE/EB.AIR/91/Add.2, Part Three, item 1.2) and its 2009 workplan (ECE/EB.AIR/96/Add.2), the Implementation Committee has started and completed its in-depth review of compliance by the Parties with the 1998 Protocol on Heavy Metals, including their national emission obligations. For this purpose, it used as a basis the emission data reported by Parties to EMEP in the 2009 reporting round, and the responses to the questionnaire for the 2008 Review on Strategies and Policies¹. The Committee limited its review to the obligations it had identified for priority review (ECE/EB.AIR/2008/3, para. 88). The reporting obligations of Parties under article 7 are dealt with separately in chapter [] above.
2. Being confronted with inconsistencies and with incomplete or unclear responses to the 2008 Questionnaire by a number of Parties, the Committee, after its 22nd meeting in 2008, requested the secretariat to ask Parties whose answers were not sufficient to make an assessment, to submit additional information. E-mails requesting such information were sent *prior to the 23rd meeting in 2009* to thirteen Parties. The Committee considered the information received at *that meeting*.
3. In conducting its work, the Committee was mindful of the fact that the purpose of its in-depth review was to assess the general “state of health” of the Protocol in question rather than to determine whether particular Parties were or were not in compliance with their obligations.
4. The Committee assessed the replies to the 2008 Questionnaire by the 29 Parties, for all of which the Protocol was in force as at 31 March 2009 (date by which this questionnaire had to be completed). In its assessment the Committee also took account of its considerations and conclusions from the 2006 in-depth review of the Protocol (ECE/EB.AIR/2006/3/Add.2, Chap. III, para. 1-27). This approach ensures that a Party’s responses to the 2005 questionnaire along with the previous considerations and conclusions of the Committee in respect of that Party’s compliance are taken into account in the context of the current questionnaire. As a result, it is possible that the Committee could reach a different conclusion, for example in respect of two Parties that provide the same or similar responses to the same question under 2008 questionnaire because one Party may have provided more detailed information in response to the 2005 questionnaire. This could be particularly relevant when distinguishing between instances of ‘in compliance’ and ‘no evaluation possible’..
5. The Committee could only assess the status of compliance of Parties as at 31st March 2008 (the date by which this questionnaire had to be completed). The Committee did not assess historical compliance as part of this review.
6. As a basis for its assessment of compliance the Committee used information on national legislation as reported by the Parties. It is not aware of any EC Regulation which

¹ The Protocol was in force at the date this questionnaire had to be completed, for all 29 Parties, with Croatia as the last one, since 5 December 2007.

would take immediate effect in the Member States in the same way as a national instrument, and which is relevant to this In-depth Review.

7. The Committee, *as in the previous in-depth review and* in line with the Guidance for filling out the 2008 Questionnaire (ECE/EB.AIR/2007/4), being part of the Questionnaire which was approved by the Executive Body at its 25th session (ECE/EB.AIR/ 91, para. 82) as the uniform reporting framework referred to in article 7.2 of the Protocol, considered evaluation of an answer not possible due to lack of information if a Party, in reply to a question concerning (new) sources within a specific source category for which an obligation is in force under the Protocol, referred only to the absence in its country of any such (new) source.

8. The Committee noted that when the use of best available techniques (BAT) in certain installations is regulated on a case-by-case basis through permits, it would not necessarily for all cases result in the same emission reduction as would be achieved by applying emission limit values. Therefore, where a Party referred to the use of BAT or permits based on BAT as an alternative approach to the use of emission limit values for a certain category of sources, but did not demonstrate conclusively that with this approach it achieved the same or higher emission reductions as by applying emission limit values, the Committee deemed that it was not in a position to assess compliance.

9. The Committee further noted that the obligation under article 3.3 with reference to paragraph 5 of annex VI, to apply product control measures to alkaline manganese batteries, entered into force on 29 December 2008, after the date the 2008 Questionnaire had to be completed. Nevertheless, a question pertaining to these obligations was included in the 2008 Questionnaire on strategies and Policies and information received about implementation through the responses has been forwarded to the Committee.

10. The Committee was unable to review whether Latvia, Liechtenstein, Luxembourg and Republic of Moldova had complied with their obligations because either they did not respond to the questions concerning the Protocol on Heavy Metals, or their responses were received too late to be taken into account.

I. Compliance with article 3.1 [see Table 1]

11. Article 3.1 requires Parties to reduce their total annual emissions of each of the heavy metals listed in annex I from the level of emissions in the reference year set in accordance with that annex by taking effective measures, appropriate in their particular circumstances.

12. The Committee concluded that officially submitted emission data showed that 20 of the 29 Parties to the 1998 Protocol on Heavy Metals met their emission reduction obligations for all three heavy metals listed in annex I in 2007: Austria, Belgium, Bulgaria, Canada, Croatia, Denmark, Estonia, Finland, France, Germany, Hungary, Latvia, Monaco, the Netherlands, Norway, Slovakia, Slovenia, Sweden, Switzerland and the United Kingdom. Three other Parties increased their emissions of at least one of the heavy metals listed in annex I of the Protocol and therefore appeared not to have complied with their obligation

under article 3.1: Cyprus (cadmium and mercury), *Czech Republic (cadmium) and Lithuania (mercury)*. This can be seen from Table 1, which presents the emission data for the reference year for each Party and their reported emission data for 2003 till 2007.

13. The following *five* Parties did not submit complete emission data for either the base year or *the latest reporting year* for one or more of the heavy metals listed in Annex I and the Committee was therefore not in a position to assess their compliance with the obligation under this article: Liechtenstein, Luxembourg, *Rep. of Moldova*, Romania and the European Community. *Two of these Parties, Luxembourg and European Community, when reporting emissions for the base year as well as the years 2003-2007, used the reporting key 'NR', indicating 'not relevant'*. Compliance by the United States with the emission reduction obligation could not be assessed either, *as information is only available for the base year, 2003 and 2005*. Being a Party outside the geographic scope of EMEP, the United States are under no obligation to report on emission data to EMEP, using, as a minimum, the methodologies and the temporal and spatial resolution specified by the Steering Body of EMEP. According to article 7.1(b), Parties outside the geographic scope of EMEP are required to make available similar information to the Executive Body, if requested to do so. However, the Executive Body has made no such formal request.

II. Compliance with article 3.2(a) [See Table 2]

14. According to article 3.2(a) each Party shall, no later than the timescales specified in annex IV, apply the best available techniques, taking into consideration annex III, to each new stationary source within a major stationary source category (as defined in article 1.10-11) for which annex III identifies best available techniques. The timescale defined in annex IV is two years after the date of entry into force of the Protocol (29 December 2003).

15. The Committee concluded from the responses to the 2008 questionnaire on strategies and policies, and in particular the responses to question 33, as well as from additional written information received from the Parties, that 22 of the 29 Parties appeared to be in compliance with this obligation: Austria, Belgium, Bulgaria, Canada, Cyprus, Czech Republic, Denmark, Estonia, Finland, Germany, Hungary, Lithuania, the Netherlands, Norway, Romania, Slovakia, Slovenia, Sweden, Switzerland, the United Kingdom, the United States *and the European Community*.

16. *Five* of the Parties (Latvia, Liechtenstein, Luxembourg, Monaco *and* Republic of Moldova) did not respond. Due to their failure to comply with their reporting obligation under article 7.1(a), the Committee was unable to evaluate whether they had complied with their obligation under article 3.2(a).

17. The Committee found that following two Parties had submitted a reply which was either incomplete or unclear and therefore was unable to determine their compliance with the obligation under article 3, paragraph 2(a): Croatia and France.

III. Compliance with article 3.2(b) [see Table 3]

18. Article 3.2(b) requires Parties, no later than the timescales specified in annex IV, to apply the limit values specified in annex V to each new stationary source within a major stationary source category. Parties may, as an alternative, apply different emission reduction

strategies that achieve equivalent overall emission levels. The timescale specified in annex IV is two years after the date of entry into force of the Protocol.

19. The Committee concluded from the responses to the 2008 questionnaire on strategies and policies, and in particular the responses to question 34, as well as from additional written information received from the Parties, that *eight* of the 29 Parties appeared to be in compliance with this obligation: Austria, Belgium, Bulgaria, Croatia, Cyprus, Finland, Germany *and the European Community*. In accordance with article 3, paragraph 7, Canada is exempt from this obligation, as it has demonstrated a 50% reduction in the emissions of each of the three heavy metals listed in annex I. Nine other Parties (Czech Republic, Estonia, France, Hungary, Lithuania, the Netherlands, Slovakia, Switzerland and the United Kingdom) appeared not to have complied with the obligation to apply the limit values specified in annex V of the Protocol and did not demonstrate that they had applied different emission reduction strategies that achieved equivalent overall emission levels.

20. *Five* of the Parties (Latvia, Liechtenstein, Luxembourg, Monaco *and* Republic of Moldova) did not respond. Due to their failure to comply with their reporting obligation under article 7.1(a), the Committee was unable to evaluate whether they had complied with their obligation under article 3.2(b).

21. Six of the Parties had submitted a reply, which was either incomplete or unclear and therefore the Committee was unable to determine their compliance with the obligation under article 3.2(b): Denmark, Norway, Romania, Slovenia, Sweden and the United States.

IV. Compliance with article 3.3

1. Limit values, specified in annex VI, para. 1 - 4 [see Table 4]

22. Article 3.3 requires Parties to apply product control measures in accordance with the conditions and timescales specified in annex VI. Annex VI, paragraph 1, requires that, no later than six months after the date of entry into force of the Protocol, the lead content of marketed petrol intended for on-road vehicles shall not exceed 0.013 g/l. Parties are permitted (paragraph 4) to market small quantities, up to 0.5 per cent of its total petrol sales, of leaded petrol with a lead content not exceeding 0.15 g/l to be used by old on-road vehicles.

23. The Committee concluded from the responses to the 2008 questionnaire on strategies and policies, and in particular the responses to question 37 that *24* of the 29 Parties appeared to be in compliance with this obligation: Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Hungary, Lithuania, Monaco, the Netherlands, Norway, Romania, Slovakia, Slovenia, Sweden, Switzerland, the United Kingdom, the United States *and the European Community*. One other Party (Canada) appeared not to have complied with the obligation to apply product control measures to ensure that the lead content of marketed petrol intended for on-road vehicles shall not exceed 0.013 g/l.

24. *Four* of the Parties (Latvia, Liechtenstein, Luxembourg *and* Republic of Moldova) did not respond. Due to their failure to comply with their reporting obligation under article 7.1(a), the Committee was unable to evaluate whether they had complied with their obligation under article 3.3 in conjunction with annex VI, para.1-4.

2. Limit values, specified in annex VI, para. 5 [see Table 5]

25. Article 3.3 requires Parties to apply product control measures in accordance with the conditions and timescales specified in annex VI. Annex VI, paragraph 5, requires that, no later than five years (29 December 2008) after the entry into force of the Protocol, the mercury content in alkaline manganese batteries, shall not exceed 0.025% by weight or, in batteries for prolonged use, 0.05% by weight. As the responses to the 2008 questionnaire on strategies and policies were provided by 31 March 2008, i.e. before the obligation entered into force, the conclusions with respect to this obligation are provisional and do not contain any legal assessment.

26. The Committee concluded from the responses to the 2008 questionnaire on strategies and policies, and in particular the responses to question 38 that *at least 14* of the 29 Parties appeared to have voluntarily implemented this obligation.

27. *Fifteen* of the Parties either did not respond, submitted a reply which was incomplete or indicated that the obligation was not mandatory. The Committee did not make an assessment for these Parties.

V. Compliance with article 3.5 [see Table 1]

28. Article 3.5 requires Parties to develop and maintain emission inventories for the heavy metals listed in annex I. Parties within the geographical scope of EMEP must use, as a minimum, the methodology and the spatial and temporal resolution specified by the Steering Body of EMEP, and, for those Parties outside the geographical scope of EMEP, using as guidance the methodologies developed through the work plan of the Executive Body.

29. The Committee concluded, from the officially submitted emission data in 2009 for the reference year and the years 2003 till 2007, that 22 of the 27 Parties within the geographic scope of EMEP had developed and maintain emission inventories for the heavy metals listed in annex I: Austria, Belgium, Bulgaria, *Croatia*, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Hungary, Latvia, Lithuania, Monaco, the Netherlands, Norway, Slovakia, Slovenia, Sweden, Switzerland and the United Kingdom. One of the two Parties outside the geographic scope of EMEP (Canada) had also provided emission data on the three heavy metals.

30. In the absence of complete emission data, the Committee was unable to determine compliance with the obligation under article 3.5 for five Parties within the geographic scope of EMEP (Liechtenstein, Luxembourg, *Republic of Moldova*, Romania and the European Community) and one Party outside the geographic scope of EMEP (the United States).

VI. Compliance with article 5.1 [see Table 6]

31. Article 5.1 requires Parties to develop, without undue delay, strategies, policies and programmes to discharge their obligations under the Protocol.

32. The Committee concluded from the responses to the 2008 questionnaire on strategies and policies, and in particular the responses to question 32, that 23 of the 29 Parties appeared

to be in compliance with this obligation: Austria, Belgium, Bulgaria, Canada, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Hungary, Lithuania, the Netherlands, Norway, Romania, Slovakia, Slovenia, Sweden, Switzerland, the United Kingdom and the United States.

33. *Five Parties (Latvia, Liechtenstein, Luxembourg, Monaco and Republic of Moldova) did not respond to the questionnaire. Due to their failure to comply with their reporting obligation under article 7.1(a), the Committee was unable to evaluate whether they had complied with their obligation under article 5.1.*

33bis One Party submitted a reply which was incomplete and therefore the Committee was unable to determine its compliance with the obligation under article 5.1.: the European Community.

VII. Conclusions

34. On the basis of the information reviewed, the Committee concluded that five Parties (Austria, Belgium, Bulgaria, Finland and Germany) appeared to be in compliance with each obligation reviewed with priority under article 3.1, 3.2(a) and (b), 3.3, 3.5 and article 5.1 of the 1998 Protocol on Heavy Metals which applied to it and was in force at the date the 2008 questionnaire had to be completed, and 11 Parties (Canada, Cyprus, Czech Republic, Estonia, France, Hungary, Lithuania, the Netherlands, Slovakia, Switzerland and the United Kingdom) appeared to be in non-compliance with at least one of these obligations. For 14 Parties, however, because no information or only partial information had been submitted, it was not possible for the Committee to assess the extent of compliance.

35. Most of the apparent non-compliance (nine of the Parties) is connected with the obligation of article 3.2(b) to apply ELVs as specified in annex V or alternative emission reduction strategies, for new stationary sources. This obligation resulted also in the largest number of cases (12) where evaluation was not possible due to lack of response to the questionnaire or incomplete or unclear answers. With respect to the obligation of article 3.2(a) to apply BAT to new stationary sources, the Committee is conscious that assessment of compliance is to a certain extent precarious, due to the complexity of annex III combined with the recommendatory character of its contents.

36. When comparing the present assessment (covering 29 Parties) with the 2006 in-depth review (covering 28 Parties) significant improvements or at least stabilization can be observed. Reduction of emissions of all three metals of annex I is accomplished by the same number of Parties as in 2006. Also the number of Parties with an increase of emissions for at least one of the metals remained the same. BAT and limit values for stationary sources seem to be satisfactorily applied for all relevant categories by 76%, respectively 28% of the Parties, compared with 43% and 19% in 2006. On the other hand, 32% of the Parties are possibly in non-compliance with the ELV obligation for one or more of the source categories, as compared with 19% in 2006. This increase coincides with a decrease of the number of Parties not replying to the relevant question, from 10 in 2006 to 5 in 2008. The limit value for lead in petrol as reported now, suggests compliance for 83% of the Parties, compared to 61% in 2006. The score related to strategies and policies, 60% in 2006, has risen to 80% in 2008.

Table A: Compliance with emission related obligations

Party	Emission reduction art. 3.1									Inventories art. 3.5
	Cadmium (Mg)			Lead (Mg)			Mercury (Mg)			
	Ref. yr. (1990) ¹	2007	Reduction	Ref. yr. (1990) ¹	2007	Reduction	Ref. yr. (1990) ¹	2007	Reduction	
Austria	3.10	1.22	Yes	326.72	15.33	Yes	3.74	1.05	Yes	C
Belgium	7.18	1.59	Yes	437.19	60.48	Yes	6.87	2.73	Yes	C
Bulgaria	28.25	3.51	Yes*	435.85	264.38	Yes*	13.2	1.61	Yes*	C
Canada#	94	28.41	Yes	1215	266.25	Yes	35	5.56	Yes	C
Croatia	1.26	0.79	Yes	430.39	9.18	Yes	1.36	0.62	Yes	C
Cyprus	0.56	1.20	No	16.14	8.62	Yes	0.65	1.36	No	C
Czech Rep.	4.34	7.03	No	269.4	44.06	Yes*	7.52	3.92	Yes*	C
Denmark	1.14	0.75	Yes	119.78	6.17	Yes	3.27	1.12	Yes	C
Estonia	4.4	0.68	Yes	200.6	40.16	Yes	1.12	0.65	Yes	C
Finland	6.34	1.11	Yes	327.14	21.21	Yes	1.13	0.81	Yes	C
France	19.82	3.59	Yes	4258.00	108.00	Yes	26.94	6.68	Yes	C
Germany	11.93	2.54	Yes	1801.25	106.43	Yes	20.08	4.05	Yes	C
Hungary	5.51	1.48	Yes*	663.34	34.56	Yes*	6.26	2.83	Yes*	C
Latvia	1.55	0.59	Yes	23.28	17.91	Yes	0.31	0.03	Yes	C
Liechtenstein	-	-		-	-		-	-		?
Lithuania	3.8	0.40	Yes*	46.7	6.77	Yes*	0.02	0.43	No*	C
Luxembourg#	NR	NR		NR	NR		NR	NR		?
Monaco	0.06	0.01	Yes	4.10	0.04	Yes*	0.12	0.06	Yes*	C
Netherlands	2.11	1.94	Yes	337.89	39.35	Yes	3.51	0.65	Yes	C
Norway	1.11	0.56	Yes	185.72	6.74	Yes	1.50	0.69	Yes	C
Rep.Moldova	2.42	-		248.55	-		3.37	-		?
Romania	NE	2.47		NE	77.38		NE	4.13		?
Slovakia	9.44	9.28	Yes	150.42	64.99	Yes	12.47	2.72	Yes	C
Slovenia	0.79	0.44	Yes	324.98	14.38	Yes	1.21	1.17	Yes	C
Sweden	2.27	0.58	Yes	361.06	15.67	Yes	1.62	0.63	Yes	C
Switzerland	3.69	1.09	Yes	418.79	19.88	Yes	6.63	1.05	Yes	C
UK	23.13	2.91	Yes	2892.91	70.14	Yes	37.72	7.16	Yes	C
US#	180	-		2996	-		187	-		?
EC#	NR	NR		NR	NR		NR	NR		?

Notes: ¹ The reference year for Austria is 1985, for Monaco 1992 and for Romania 1989.

* Where a conclusion is marked with *, the Emission Reporting Guidelines followed when calculating or re-calculating the base year data differ from those according to which the 2007 data are calculated.

“-”: No data reported; “C”: Appeared to be ‘In compliance’; “?”: No evaluation possible due to insufficient or less relevant information.

NE: “Not estimated” (notation key from the Emission Reporting Guidelines signifying that emissions may occur, but have not been estimated in the submission. Parties are requested to give the reason why).

NR: “Not relevant” (notation key from the Emission Reporting Guidelines, introduced in the 2009 Guidelines ‘...to ease the reporting where emissions are not strictly required by the different protocols, e.g. for some Parties emissions of NMVOCs prior to 1988.’).

[# **Specific remarks:** Luxembourg and EC: the notation key ‘NR’ does not seem to be used properly; US: apart from base year data, reporting of emission data is not obligatory for the US, as no request to make such information available, as indicated in the second sentence of art. 9.1(b), has been made so far by the EB; Canada: Party outside the geographic scope of EMEP which submitted data on time, although there was no such request from the EB.]

Table B. Compliance with technology and strategy related obligations identified for priority review

Party	BAT new stat. sources	ELVs new stat. sources	Lead in petrol	Mercury in batteries*	Strategies & Policies
	art. 3.2 (a)	art. 3.2 (b)	art. 3.3	art. 3.3	art. 5.1

Austria	C	C	C	N/a	C
Belgium	C	C	C	N/a	C
Bulgaria	C	C	C	N/a	C
Canada	C	N/a	NC	N/a	C
Croatia	?	C	C	N/a	C
Cyprus	C	C	C	N/a	C
Czech Rep.	C	NC	C	N/a	C
Denmark	C	?	C	N/a	C
Estonia	C	NC	C	N/a	C
Finland	C	C	C	N/a	C
France	?	NC	C	N/a	C
Germany	C	C	C	N/a	C
Hungary	C	NC	C	N/a	C
Latvia	-	-	-	N/a	-
Liechtenstein	-	-	-	N/a	-
Lithuania	C	NC	C	N/a	C
Luxembourg	-	-	-	N/a	-
Monaco	-	-	C	N/a	-
Netherlands	C	NC	C	N/a	C
Norway	C	?	C	N/a	C
Rep. Moldova	-	-	-	N/a	-
Romania	C	?	C	N/a	C
Slovakia	C	NC	C	N/a	C
Slovenia	C	?	C	N/a	C
Sweden	C	?	C	N/a	C
Switzerland	C	NC	C	N/a	C
United Kingdom	C	NC	C	N/a	C
United States	C	?	C	N/a	C
EC	C	C	C	N/a	?
No. of Parties in compliance	22	8	24	N/a	23
Share Parties in compliance	76%	28%	83%	N/a	79%

Notes: "C": Appeared to be 'In compliance'; "NC": Appeared to be 'In non-compliance'; "-": No evaluation possible (no response to the question concerned); "?": No evaluation possible (incomplete, unclear or less relevant answer to the question concerned); "N/a": Not applicable, *this obligation came into force only on 29 December 2008.

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Table 1: Compliance with article 3.1 (associated provisions: art. 3.6)
“Each Party shall reduce its total annual emissions into the atmosphere of each of the heavy metals listed in annex I from the level of emission in the reference year set in accordance with that annex by taking effective measures, appropriate to its particular circumstances”

EMEP 2009 (WebDab 29 June 2009 update, officially reported data).

Party	Entry into force	Cadmium (Mg)							Lead (Mg)							Mercury (Mg)						
		Ref. yr. (1990) ¹	2003	2004	2005	2006	2007	Reduction	Ref. yr. (1990) ¹	2003	2004	2005	2006	2007	Reduction	Ref. yr. (1990) ¹	2003	2004	2005	2006	2007	Reduction
Austria	17.03.2004	3.10	1.09	1.09	1.17	1.21	1.22	Yes	326.72	13.11	13.53	14.14	14.82	15.33	Yes	3.74	1.01	0.98	1.03	1.06	1.05	Yes
Belgium	07.09.2005	7.18	1.91	2.32	1.71	1.80	1.59	Yes	437.19	76.93	85.81	75.93	76.05	60.48	Yes	6.87	3.09	3.00	1.82	1.62	2.73	Yes
Bulgaria	26.01.2004	28.25	14.90	15.34	12.12	12.33	3.51	Yes*	435.85	147.92	143.39	114.81	124.10	264.38	Yes*	13.2	5.03	4.66	3.38	3.75	1.61	Yes*
Canada	29.12.2003	94	31	33	35	41	28.41	Yes	1215	341	289	233	309	266.25	Yes	35	6	7	6	6	5.56	Yes
Croatia [#]	05.12.2007	1.26	-	-	0.83	0.84	0.79	Yes	430.39	-	-	11.67	9.05	9.18	Yes	1.36	-	-	0.69	0.59	0.62	Yes
Cyprus	01.12.2004	0.56	1.03	1.07	1.13	1.16	1.20	No	16.14	9.41	9.15	9.14	8.66	8.62	Yes	0.65	1.17	1.22	1.29	1.32	1.36	No
Czech Rep.	29.12.2003	4.34	2.24	2.37	3.11	3.18	7.03	No*	269.4	38.97	36.65	47.08	42.74	44.06	Yes*	7.52	1.79	2.09	3.77	3.85	3.92	Yes*
Denmark	29.12.2003	1.14	0.62	0.62	0.65	0.72	0.75	Yes	119.78	4.96	5.30	5.67	6.14	6.17	Yes	3.27	1.33	1.16	1.38	1.33	1.12	Yes
Estonia	22.06.2006	4.4	0.62	0.59	0.58	0.55	0.68	Yes	200.6	39.27	37.97	36.68	34.01	40.16	Yes	1.12	0.58	0.54	0.52	0.52	0.65	Yes
Finland	29.12.2003	6.34	1.18	1.49	1.30	1.29	1.11	Yes	327.14	34.23	27.78	23.50	24.6	21.21	Yes	1.13	0.78	0.74	0.85	0.98	0.81	Yes
France	29.12.2003	19.82	8.33	5.81	5.53	3.98	3.59	Yes	4258.00	143.87	127.42	123.09	114.80	108.00	Yes	26.94	8.53	8.20	8.64	8.15	6.68	Yes
Germany	29.12.2003	11.93	2.70	2.42	2.50	2.55	2.54	Yes	1801.25	104.52	104.26	103.57	105.76	106.43	Yes	20.08	3.63	3.58	3.77	3.86	4.05	Yes
Hungary	18.07.2005	5.51	2.86	2.72	1.53	1.74	1.48	Yes*	663.34	33.89	33.54	37.53	36.80	34.56	Yes*	6.26	3.99	3.78	4.15	3.16	2.83	Yes*
Latvia	26.01.2005	1.55	0.47	0.46	0.50	0.55	0.59	Yes	23.28	15.08	15.12	15.20	16.71	17.91	Yes	0.31	0.03	0.03	0.03	0.03	0.03	Yes
Liechtenstein	23.03.2004	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Lithuania	26.01.2005	3.8	0.92	0.52	0.37	0.37	0.40	Yes*	46.7	14.95	5.23	5.66	6.02	6.77	Yes*	0.02	0.35	0.42	0.41	0.42	0.43	No*
Luxembourg [#]	29.12.2003	NR	NR	NR	NR	NR	NR		NR	NR	NR	NR	NR	NR		NR	NR	NR	NR	NR	NR	NR
Monaco	11.02.2004	0.06	0.01	0.01	0.01	0.00	0.01	Yes*	4.10	0.05	0.04	0.04	0.03	0.04	Yes*	0.12	0.06	0.06	0.06	0.04	0.06	Yes*
Netherlands	29.12.2003	2.11	2.36	1.76	1.68	1.94	1.94	Yes	337.89	41.04	42.62	38.60	38.90	39.35	Yes	3.51	0.66	1.02	0.81	0.77	0.65	Yes
Norway	29.12.2003	1.11	0.66	0.60	0.54	0.60	0.56	Yes	185.72	7.16	7.74	6.31	6.24	6.74	Yes	1.50	0.67	0.70	0.69	0.64	0.69	Yes
Rep.Moldova	29.12.2003	2.42	0.12	0.11	0.15	0.16	-		248.55	10.55	2.28	5.06	4.98	-		3.37	0.34	0.32	0.24	0.22	-	
Romania	29.12.2003	NE	NE	NE	10.05	6.49	2.47		NE	NE	NE	162.48	118.15	77.38		NE	NE	NE	11.46	5.23	4.13	
Slovakia	29.12.2003	9.44	5.83	3.60	6.10	6.05	9.28	Yes	150.42	64.17	69.66	70.59	73.03	64.99	Yes	12.47	2.90	3.17	2.90	3.44	2.72	Yes
Slovenia	10.05.2004	0.79	0.46	0.44	0.44	0.46	0.44	Yes	324.98	13.70	14.27	13.49	14.35	14.38	Yes	1.21	1.07	1.11	1.06	1.14	1.17	Yes
Sweden	29.12.2003	2.27	0.51	0.53	0.53	0.54	0.58	Yes	361.06	19.38	17.66	14.59	14.02	15.67	Yes	1.62	0.76	0.78	0.73	0.59	0.63	Yes
Switzerland	29.12.2003	3.69	1.12	1.13	1.12	1.12	1.09	Yes	418.79	21.92	21.36	20.75	20.28	19.88	Yes	6.63	1.05	1.08	1.05	1.09	1.05	Yes
UK	04.10.2005	23.13	3.23	3.42	3.53	3.55	2.91	Yes	2892.91	116.28	118.08	109.09	81.90	70.14	Yes	37.72	7.43	6.40	7.09	7.36	7.16	Yes
US [#]	29.12.2003	180	NA	-	63	-	-		2996	NA	-	1230	-	-		187	NA	-	103	-	-	
EC [#]	29.12.2003	NR	NR	NR	NR	NR	NR		NR	NR	NR	NR	NR	NR		NR	NR	NR	NR	NR	NR	NR

¹ The reference year for Austria is 1985, for Monaco 1992 and for Romania 1989.

* Where a conclusion is marked with an *, the Emission Reporting Guidelines followed when calculating or re-calculating the base year data differ from those according to which the 2007 data, and occasionally, (part of) the data for earlier years are calculated or re-calculated.

General remarks:

“-“: No data reported.

NA: “Not applicable” (notation key from the Emission Reporting Guidelines signifying that emissions are considered by the Party to never occur).

NE: “Not estimated” (notation key from the Emission Reporting Guidelines signifying that emissions may occur, but have not been estimated in the submission. Parties are requested to give the reason why).

NR: “Not relevant” (notation key from the Emission Reporting Guidelines -since the 2009 Guidelines- signifying that ‘According to paragraph 9 in the Emission Reporting Guidelines, emission inventory reporting should cover all years from 1980 onwards if data are available. However, “NR”(not relevant) is introduced to ease the reporting where emissions are not strictly required by the different protocols, e.g. for some Parties emissions of NMVOCs prior to 1988.”).

#Specific remarks:

Croatia: emission reporting obligation as from 2008; Luxembourg and EC: the notation key ‘NR’ does not seem to be used properly, as according to the explanation given in ECE/EB.AIR/97 it is meant ‘...to ease the reporting where emissions are not strictly required by the different protocols...’; table 5 of Note IC2/09 shows “Xs” for Luxembourg for the base year and for EC ‘NE’ for the base year and 2003 – 2006, with the explanation that ‘...EU 25 totals are difficult to estimate given the lack of information from individual States; US: apart from base year data, reporting of emission data is not obligatory for the US, as no request to make such information available as indicated in the second sentence of art. 9.1(b) has been made so far by the EB; the notation ‘NA’, according to EMEP used by US when reporting in 2005 the emissions in 2003, is unclear, as use of this notation key from the reporting guidelines would mean that emissions of Cd, Pb and Hg are considered by the US to never occur, while on the other hand, in 2009 actual emission data were reported for the year 2005.

Table 2: Compliance with article 3.2(a), (associated provision: art. 3.6)

“Each Party shall, no later than the timescales specified in annex IV, apply:

(a) The best available techniques, taking into consideration annex III, to each new stationary source within a major stationary source category for which annex III identifies best available techniques”

Question 33: With reference to article 3, paragraph 2 (a) and annex III, please explain how you ensure the application of BAT to each new stationary source within a major source category (construction or substantial modification commenced after 29 December 2005) for which that annex identifies BAT, for example through national legislation, permitting procedure, guidance, etc.

Party	Response to Q. 33	Comments	Conclusion
Austria	“For new or modified industrial installations a permit is required according to the Industrial Code (1994) and the Clean Air Act for Steam Boilers (2004). Specific requirements as emission limit values and/or emission reduction measures according to best available technique have to be laid down during the individual licensing procedure. The criteria for the determination of BAT are identical with those mentioned in Annex III of the Protocol, part 1. For several categories of (new and existing) stationary emission sources explicit emission limit values and BAT requirements, mainly measures to avoid dust from storage and transport of materials, have been set by ordinance (see Q. 34). As far as requirements are expressed as emission limit values, it is left open to the plant operators to decide which techniques to use for achieving the limit values.”.	<i>2006 IDR: c. Refers to a licensing system and to BAT criteria in the Industrial Code, which are identical to those in Annex III, part 1, and to ELVs and BAT requirements for stationary sources. As far as requirements are expressed as ELV, it is to the operators to decide on the techniques used to achieve that value.</i>	In compliance

Party	Response to Q. 33	Comments	Conclusion
<p>Belgium</p>	<p>“As explained in the answer to Q.26 the European IPPC Directive 96/61/EC concerning integrated pollution prevention and control is applicable in the EU countries. This Directive sets common rules for permitting and controlling industrial installations. All stationary sources listed in annex II and referred to in annex III are covered by the IPPC Directive. The IPPC Directive is implemented in Belgium in regional legislation. Further details see answer to Q.26”.</p>	<p><i>2006 IDR: n.e.p. (incomplete info) (Only data for Flanders)</i></p> <p><i>In the answer to Q.26 the essence of the IPPC Directive is described: the requirement for industrial installations, listed in the Directive, to obtain a permit, including the obligation to have permit conditions(e.g. ELVs) based on BAT and details about BREFs. The Flemish region implemented IPPC requirements, such as permit procedure, obligation to apply BAT, in governmental Orders (1991, 1995), also for smaller installations, for which separate BAT documents were developed.</i></p> <p><i>For the Walloon region is referred to Q.18, where the permitting system related to IPPC Directive and regional legislation are mentioned with regard to wastes and the environmental permit in general. No information on specific source categories for Walloon region, however under Q.34 it is stated that for ”sinter plants, blast furnaces, electric arc furnaces, production of copper, zinc and lead and glass industry”, ELVs “are imposed through individual environmental permits and are based on BAT”.</i></p> <p><i>For the Brussels-Capital region reference is made to an Order (2007) implementing the IPPC Directive. 13 so called ‘IPPC companies’ are identified, for which a permit is required. Required for such permits is BAT and BEP (Best Environmental Practices) application, established for each sector. Further specific measures are adopted in the Brussels region for certain sources (filters and de-NOx, for waste incineration and filters in thermal metallurgic processes (sec. production of lead)). However, under Q.34 it is stated that up to now there is no production of copper, zinc and lead in the Brussels region! Although BAT application is secured at the time of the present review, it is unclear whether this was the case in the Brussels region at the time the obligation took effect for Belgium.</i></p>	<p>In compliance</p>

Party	Response to Q. 33	Comments	Conclusion
Bulgaria	<p>“The requirements of the Directive 1996/61/EC were introduced in the Bulgarian Environment Protection Act (EPA) (SG 91/2002), adopted by the Parliament in September 2002. The stationary source categories in EPA’s Appendix 4 are identical to these listed in Appendix I of the Directive 1996/61/EC and in Appendix I of the Protocol”.</p> <p>Additional information: “The procedures for implementation of IPPC directive are listed in a special regulation under the EPA. This regulation defines also the procedures for identifying and applying of BAT and the scope of their application as well. (...) Appendix 4 of the Bulgarian EPA because it contains the categories of activities for which the IPPC regulation is applicable (including the application of BAT). And these activities are the same as in the Directive 1996/61/EC annexes and as the activities covered by Annex III of the HM Protocol. In practice applying the requirements of the Directive 1996/61/EC through EPA and through IPPC regulation Bulgaria fulfils its obligation for application of BAT for sources listed in HM Protocol.”.</p>	<p><i>2006 IDR: n.e.p. (no reply)</i> <i>Refers to national legislation (2002) implementing EC Directive 1996/61, without any information about their contents.</i> <i>In the additional information it is stated that the categories covered by national legislation are the same as covered by Annex III. It is stated that in practice by applying EPA and the regulation under it, BAT obligations for sources listed in the protocol are fulfilled.</i></p>	In compliance
Canada	<p>“As noted in our response on the 1998 Protocol on Persistent Organic Pollutants (POPS), Canada’s approach to the reduction of emissions from major stationary sources is to set an emission limit based on consideration of best available techniques (BAT), and not to specifically require the use of a particular BAT. It is the responsibility of facilities to meet these emission limits using any appropriate means at their disposal. Emission standards for most industrial sources are set and enforced provincially. National emission guidelines are developed jointly by the federal and provincial governments with industry and other interested parties which can result in instruments which become de-facto minimum national standards. The Canada-wide standards and CEPA Strategic Options Processes help to identify the BAT for different source categories. While generally avoiding a prescriptive approach, Canadian standards, limits, permits and guidelines are based on what can be reliably achieved technologically, with consideration of specific technologies entering into the formulation of performance expectations. Where provinces regulate, they generally do not prescribe the specific technology to be used as a requirement but allow industry to opt for alternatives to BAT as long as performance expectations are met. The federal government has indicated its intent to develop regulatory measures for air pollutants. Regulations will mandate reductions in emissions of air pollutants, inclusive of PM, from industrial sectors. Sectors include: smelting and refining (including aluminium, and base metal smelting), iron and steel, iron ore pelletizing, and cement manufacturing. Emission targets are to be at least as rigorous as those in the U.S. or other environmental performance-leading countries. For the base metals smelting sector, Canada has issued a notice requiring the preparation and implementation of a pollution prevention plan under CEPA 1999. Pollution prevention plans are to take into consideration an</p>	<p><i>2006 IDR: c. (Based on the description of the approach for reduction of emissions from major stat. sources by setting emission limits based on BAT considerations)</i> <i>Gives an update of the reply to the equivalent question in the 2006 Questionnaire. Describes the approach used to apply BAT to new sources in major source categories. For a number of these categories emission limits are set based on BAT considerations. It is the responsibility of the facilities to meet these limits using any appropriate means.</i> <i>Emission standards for most industrial sectors are set provincially, where national emission guidelines (which have become de-facto minimum standards) and the Canada-wide standards and strategic options processes, help to identify BAT. Federal legislation and intended regulatory measures focus on the metal industry and cement manufacturing, e.g. certain source categories mentioned in annex II (cat. 2, 3,6, 7?). Release Guidelines are developed for specific pollutants such as mercury. Environmental codes of Practice for the iron and steel sector specify emission limits for PM from annex II categories 2 and 3, in line with the guidance on BAT in annex III.</i></p>	In compliance

Party	Response to Q. 33	Comments	Conclusion
	<p>Environmental Code of Practice which sets Release Guidelines for specific pollutants of concern such as mercury, as well as facility specific emission reduction targets and schedules for Particulate Matter containing metals. The Code of Practice also contains a recommendation that each facility should develop emission reduction targets for and timetables to achieve reductions in heavy metals. For the iron and steel sector, Canada has published two Environmental Codes of Practice under CEPA, 1999 for integrated and for non-integrated steel mills. These Codes specify emission limits for total particulate matter for iron sintering, blast furnaces, basic oxygen furnaces and electric arc furnaces in line with the guidance on BAT provided in Annex III of the Protocol.”.</p>	<p><i>No specific information on BAT application for four major source categories: combustion installations, manufacturing of glass, chlor-alkali production and waste incineration. These categories are likely to be included in the provincial emission approach. <u>The conclusion is partly based on the 2006 IDR.</u></i></p>	
Croatia	<p>“In the Regulation on emission limit values of pollutants into the air from stationary sources (OG 21/07) ELV for particulate matters and heavy metals in gas are prescribed, and each new stationary source has to be in line with these values. For any new stationary source listed in the Annex to the Ordinance on environmental impact Assessment (EIA), procedure of EIA project is the assessment of possible significant environmental impacts set out under the Act and the ELV Regulation.”. Additional information: An overview is provided of the legal measures regarding a register of use permits, decisions on integrated env. requirements for existing installations and on the procedure for establishing integrated env. requirements (in force April 2009). Further local permits and building permits are mentioned. The procedure for determining integrated env. requirements for new and for existing installations is described.</p>	<p><i>Refers to an ELV Regulation and an Ordinance on EIA as well as a not further identified Act. It is not indicated whether all sources described in annex III of the Protocol are covered by the Regulation and no information is given about the relation of these ELVs with BAT. It should be noted that under Q.34 also reference is made to an ELV Regulation; this includes all categories, except for 4 (iron foundries). Regarding the Ordinance any indication is missing about specific source categories involved or the role of BAT application in the EIA procedure. In the additionally provided information any relation between the various permits or the integrated env. requirements and the source categories or BAT identified in annex III is still missing.</i></p>	No evaluation possible
Cyprus	<p>“Do not have new stationary sources, as described in Annex II and III of the protocol, operating in Cyprus. Existing cement plants have installed bag filters.”. Additional information: “Should new sources be built, the operator is obliged to apply for a permit, as provided for by the Atmospheric Pollution Control Laws of 2002 until 2008. The permit conditions, including emission limits for HM, are based on relevant EU Directives, BREFS or BAT.”.</p>	<p><i>2006 IDR: n.e.p. (incomplete info) No information is given how BAT application for new sources is ensured. The additional information refers, apparently in relation to Annex II and III, to national legislation, requiring a permit for new stat. sources. Requirements in the permit are based on BREFs or BAT.</i></p>	In compliance
Czech Republic	<p>“Source category / BAT applied: 1. wet scrubber (in the framework of flue gas desulfurization) for sources with an input over 50 MW, electrostatic separators; 2. fabric filters, scrubbers; 3. electrostatic separators, fabric filters; 4. electrostatic separators, fabric filters; 5. scrubbers, fabric filters; 6. scrubbers, fabric filters; 7. fabric filters, electrostatic</p>	<p><i>2006 IDR: c. Within the permitting procedure, BAT is demanded for new sources. Lists the specific technologies required for each major source categories 1 – 11 of annex II.</i></p>	In compliance

Party	Response to Q. 33	Comments	Conclusion
	<p>separators, adsorption on carbon; 8. electrostatic separators, fabric filters; 9. special BAT technologies; 10. fabric filters, electrostatic separators, adsorption on carbon, scrubbers; 11. fabric filters, electrostatic separators, adsorption on carbon, scrubbers. The Czech Republic transposed and implemented Directive No. 96/61/EC on integrated pollution prevention and control; within the integrated permits procedures, BAT technologies are demanded for the new sources in accordance with the requirements of the European Communities.”.</p>		
<p>Denmark</p>	<p>“It is a fundamental principle in the Danish environmental administration that polluting enterprises had to limit their contribution to pollution in the environment through application of the Best Available Technology (BAT). For those enterprises included in the EU IPPC-directive (96/61/EC,1996.09.24) BAT reference documents (BREF-notes) are used as the Danish minimum standard in the licenses issued. The enterprises carry the obligation to analyse and assess the possibility to use re recommendations in the BREF-notes. This covers replacement of harmful substances, energy savings, savings in raw materials, cleaner technologies and minimizing waste. Through the use of BREF-notes the emissions of heavy metals are reduced.”.</p>	<p><i>2006 IDR: n.e.p. (incomplete info) (Based on reference to BAT only for waste incineration and coal fired power plants)</i> <i>States that application of BAT is a fundamental principle in environmental administration. Refers to sources included in EC Directive 96/61, although no reference is made to relevant national legislation or the categories in annex II. BREFs are used as minimum standard in the licenses issued.</i></p>	<p>In compliance</p>
<p>Estonia</p>	<p>“Ambient Air Protection Act and National IPPC Regulation require that all major stationary sources have to apply for an air or IPPC permit. This applies to both existing and new installations. The emission reduction requirements in the permit have to base on BAT. Combustion plants with thermal input of more than 0,3 megawatts have been permitted with the air permit. Combustion plants over 50 megawatts have to comply with the emission limit of the Large Combustion Plants directive, where limit values for SO₂, NO_x and particulates are set. [...]”.</p>	<p><i>2006 IDR: no assessment.</i> <i>Refers to national legislation, requiring a permit for new and existing major stat. sources. Requirements in the permit are based on BAT. The relation between major stat. sources according to national legislation and the major source categories of annex II is not made explicit.</i></p>	<p>In compliance</p>
<p>Finland</p>	<p>“The major stationary sources of heavy metals emissions of Cd, Pb and Hg in Finland are combustion plants (cat 1), installations for the production of iron and steel (cat 3), installations for the production of other metals (copper, zinc and nickel) (cat 5 or 6) and installations for chlor-alkali production (cat 9). Pulp and paper industry has also been identified as a major heavy metal emission source in Finland. According to Environmental Protection Act (86/2000) and Decree (169/2000) all major stationary sources of heavy metal emissions have been permitted (both new and existing ones). Combustion plants have to comply with emission limit values on particulates based on national LCP Decree (1017/2002). Industrial installations causing heavy metal emissions have to comply with regulations on dust and heavy metals emissions that have been given in their permits on case by case basis. The emissions limit values on dust/particulate emissions in permits are between 10-30 mg m³(n) and require that these plants are equipped with electrostatic precipitators or fabric filters or scrubbers for cleaning the waste gases. Finland has used the alternative option of different emission reduction strategies to reduce heavy metal emissions from the industrial</p>	<p><i>2006 IDR: c.</i> <i>The same information is given as in June 2006 for the purpose of the IDR.</i> <i>Identifies the major stationary source categories for HM emissions (cat. 1,3,5,6 and 9 of annex II), which all need a permit. The ELVs on PM in such permits require use of ESP, FF or scrubbers. The basic measure for emission reduction is applying BAT, using national BAT reports or EU BREFs as a basis.</i></p>	<p>In compliance</p>

Party	Response to Q. 33	Comments	Conclusion
	installations by setting limit values for dust on a case by case basis. The basic measure of emission reductions is applying of the best available technologies (BAT) using as one of the information sources either the national BAT reports or those prepared under the exchange of information in the European Union. Finland has in 1999 produced four expert reports on best available techniques: in copper production and by production of precious metals, in nickel production, in zinc production and in ferrochromium production. These reports are published in the Finnish Environment – series, numbers 314, 315, 316 and 317 from the year 1999.”.		
France	New installations have to comply with emission limit values. Therefore BAT is applied, in particular de-dusting, or a less polluting fuel is chosen such as natural gas. Technology used in the electricity sector, metallurgic industry, waste incineration, non-ferrous industry, building materials sector and foundries is listed.	<i>2006 IDR: n.e.p. (no reply)</i> It is stated that new installations have to comply with emission standards, based on BAT. No details are given and no specific reference is made to techniques described in annex III. Glass and chlor-alkali industries are not mentioned.	No evaluation possible
Germany	“According to the 4th Ordinance (1985), the establishment and operation of stationary sources within the major source categories listed in annex II are subject to licensing according to the permitting procedure laid down in the 9th ordinance (1977). This procedure requires application of BAT, as laid down in the national legislation which is specified in the table under question 34.”	<i>2006 IDR: c.</i> Sources within the source categories of annex II need a permit. The permitting procedure requires application of BAT.	In compliance
Hungary	“Emission limit values for particulate matter stipulated in different EU directives have been applied to the Hungarian industries. PM emission reductions contributed of course to reduction of heavy metal emissions. Limit values of heavy metals have been required for coal-fired and fuel oil fired large combustion plants extending the scope of provisions of the relevant EU directives. Ministerial Decree 14/2001.(V.9.) KöM-EüM-FVM comprised ELVs for HM emissions which were determined for several technologies on the basis of BAT.”.	<i>2006 IDR: n.e.p. (incomplete info)</i> The same information is given as to the equivalent question in the 2006 Questionnaire and in June 2006 for the purpose of the IDR. This time with the addition that ELVs in Decree 14/2001, referred to for the categories of annex II, are determined on the basis of BAT.	In compliance
Latvia	No answer	<i>2006 IDR: n.e.p. (no reply)</i>	No evaluation possible
Liechtenstein	No answer	<i>2006 IDR: n.e.p. (no reply)</i>	No evaluation possible
Lithuania	“Application of Best Available Techniques to each new stationary source is ensured through Integrated Pollution Prevention and Control permitting procedure in accordance with the requirements of “Rules on Issuing, Reconsideration and Cancelling of IPPC Permits”(27-02-2002 Order No.80 of the Minister of Environment).”.	<i>2006 IDR: n.e.p. (no reply)</i> Refers to permitting procedure, which rules (2002) ensures application of BAT to each new stationary source.	In compliance
Luxembourg	No answer	<i>2006 IDR: n.e.p. (no reply)</i>	No evaluation possible

Party	Response to Q. 33	Comments	Conclusion
Monaco	No answer	<i>2006 IDR: n.e.p. (no reply)</i>	No evaluation possible
Netherlands	<p>“The major pollution control technologies applied are encouraged through emission limits, either generally binding or in licenses. Licensing is based on the implementation of the European BAT reference documents for techniques for emission reduction and on the Netherlands Emission Guidelines for Air (NeR, applying BAT). In waste incineration installations filters are used to eliminate the emission of substances. BATs applied: - Combustion of solid and liquid fuels: ESP (electrostatic precipitator), FF (fabric filter); - Sinter plants: High pressure wet scrubbers; - Pellet plants: (a) grinding, drying: wet Scrubbers; (b) pelletizing: wet scrubbers; (c) total plant emissions 1/: wet scrubbers; - Blast furnaces: FF; - Electric arc furnaces: FF, ESP; - Production of copper and zinc (incl. Imperial Smelting furnaces): FF, ESP; - Production of lead: FF, ESP; - Cement industry (production of clinker): FF, ESP; - Glass industry: primary measures (oxyfuel firing), FF, ESP; - Chlor-alkali plants (mercury cell process) 2: process is not allowed; - Hazardous waste incineration: Activated carbon injection and FF; - Medical waste incineration: FF; - Municipal waste incineration: activated carbon injection and FF.”.</p>	<p><i>2006 IDR: c.</i> <i>Refers to legislation and to a system of permits, which ensure application of BAT. In the permitting procedure use is made of EU BREFs and of the Netherlands Emission Guidelines for Air (NeR) to apply BAT Lists the specific technologies required for each major source categories 1 – 8 and 10 - 11 of annex II; the mercury cell process for chlor-alkali plants (cat. 9) is not allowed.</i></p>	In compliance
Norway	<p>“To comply with new EU-directives and to implement the development of better techniques to reduce the emission, stricter emission limits for heavy metals are of the major issues when the Pollution Control Authorities are considering new discharging permits for each plant. This procedure ensures that the emission of heavy metals from the major sources, are kept at levels that correspond to BAT. Emissions of heavy metals and other pollutants as well, are regulated by charging permits as a result of an permitting process where everyone, incl. NGO’s, are invited to give their opinion. But there is no tradition for evolving guidance or other documents to ensure that the emission levels area kept at low levels. The process is very transparent and the last years there has been paid great attention from the pollution control authorities to reduce the emission of heavy metals, especially mercury, from stationay sources. Since 2005 no major new stationary sources (IPPC sources) with significant heavy metal emission have been commenced in Norway.”.</p>	<p><i>2006 IDR: n.e.p. (incomplete info)</i> <i>Describes the procedure for permitting new plants. It is stated that this procedure ensures that emissions from major sources are kept at levels corresponding with BAT. The crux of the system is involvement of interested parties. There are no guidance documents used in the licensing process to ensure low emission levels.</i></p>	In compliance
Republic of Moldova	No answer	<i>2006 IDR: n.e.p. (no reply)</i>	No evaluation possible
Romania	<p>“The Central Public Authority for Environmental Protection approved, through the direct acknowledgement method, the reference documents regarding the Best Available Techniques (BATs) by the Ministerial Order no. 169/2004 and 566/2003, concerning the activities/ installations from the following types of industries: ferrous and non-ferrous metallurgies, cement industry, glass industry, chemical chlor -alkali industry.</p>	<p><i>2006 IDR: n.e.p. (no reply)</i> <i>Mentions reference documents (2003 and 2004) for BAT, for a number of source categories: probably annex II categories 2 – 9. It is not indicated where these reference documents are used for.</i></p>	In compliance

Party	Response to Q. 33	Comments	Conclusion
	<p>The establishment of the emission limit values and the equivalent parameters for the new IPPC installations, are based on the BATs, without the recommendation to use the specific techniques or technologies, but taking into consideration: the technical characteristics of the installation, the geographical location, local environmental conditions, as per the art. 11, align. 1 from the Emergency Governmental Ordinance no. 152/2005 approved through the Law no. 84 from 5th of April 2006 regarding Integrated Pollution Prevention and Control. The emission limit values respect the range of the emission levels associated with the BATs (emission levels corresponding to the use of the different techniques).”.</p>	<p><i>The ELVs for new IPPC installations are based on BATs but specific characteristics of the plant are taken into consideration, e.g. geographic location and local environmental conditions.</i> <i>No specific information regarding combustion installations and waste incineration.</i></p>	
Slovakia	<p>“Slovakia has applied the best available techniques to each new stationary source according to article 18, paragraph 3 the Act No. 478/2002 on air protection and according to the Act No. 245/2003 on integrated pollution prevention and control (IPPC). When building a new plant, which may be a source or upgrading the existing facilities, the best available techniques have to be used, taking into account the adequacy of expenses for their provision and operation according to article 18, paragraph 3 the Act No. 478/2002 on air protection. The application of BAT to stationary source within a major source category with thermal input above 50 MW are subject to integrated pollution prevention and control according to the Act No. 245/2003 on IPPC. “.</p>	<p><i>2006 IDR: c.</i> <i>Refers to national legislation (Air protection Act, 2002 and IPPC, 2003), according to which BAT have to be used for each new plant.</i> <i>The last sentence, mentioning in general a thermal input >50 MW, is unclear with respect to the source categories covered.</i></p>	In compliance
Slovenia	<p>“The Environment Protection Act [...] requires that all major stationary sources have to apply for an integrated environmental permit (for larger so called applies to both existing and new installations). This applies to both existing and new installations, which is regulated in Decree on activities and installations causing large-scale environmental pollution [...]. For existing industrial installations permits are in preparation; the emission reduction requirements in permits are based on BAT, as defined in the BREF documents of the European IPCC Bureau in Sevilla. Please see also answer 34 for details.”.</p>	<p><i>2006 IDR: c.</i> <i>Refers to legislation (2006, 2007), which requires integrated permits for new installations. Reduction requirements in permits are based on BAT, as defined in EU BREF documents. For details reference is made to Q.34. Although the relevant legislation is in force at the time of the present review, it was maybe not at the date the obligation took effect for Slovenia: 29-12-2005</i></p>	In compliance
Sweden	<p>“Environmentally hazardous activities must have individual permits in accordance with the Environmental Code (1998:808), which requires the use of BAT.”.</p>	<p><i>2006 IDR: c. (Based on the statement that BAT specified in annex III, or better, is applied for each new source)</i> <i>Refers to national legislation (1998). Individual permits require BAT. A permit is mandatory for ‘environmentally hazardous activities’ (probably including the source categories of annex II) <u>Conclusion partly based on the 2006 IDR.</u></i></p>	In compliance
Switzerland	<p>“Switzerland applies emission limit values based on the state of the art (i.e. BAT similar to annex III of the Protocol) to all stationary sources, not only to major one. A medium-sized, economically sound industrial plant is used as the criterion for assessing the economic feasibility of emission limitation.”.</p>	<p><i>2006 IDR: c. (Based on additional information issued in June 2006, regarding specific BATs applied to specific annex II categories)</i> <i>The same information is given as to the equivalent</i></p>	In compliance

Party	Response to Q. 33	Comments	Conclusion
		<p><i>question in the 2006 Questionnaire The additional information, issued in June 2006 is not provided. Applies ELVs, based on BAT similar to annex III, to all stationary sources.</i></p>	
<p>United Kingdom</p>	<p>“See also response to Q26. BAT is applied in the UK for all major industrial stationary source categories in the Protocol, under the Pollution Prevention and Control regime. UK Guidance notes for IPPC and other relevant sectors, include reference to the protocol [...]”.</p>	<p><i>2006 IDR: c. (Based on additional information issued in June 2006 regarding BAT, site specific but compatible with the requirements of the Protocol) States that BAT is applied for all major industrial source categories in the Protocol. Refers to UK Guidance notes.</i></p>	<p>In compliance</p>
<p>United States</p>	<p>“Based on review and analyses of the regulations in the U.S. that affect heavy metals emissions and other relevant information, we conclude that any new facility built in the United States within a major source category for which Annex III identifies BAT, would need to apply controls or other measures that are consistent with BAT (as set out in Article 3) in order to comply with U.S. regulations. Thus, the United States is meeting the obligations of article 3.2(a). The primary legislation for controlling emissions of heavy metals in the United States is the Clean Air Act. The Act requires the U.S. Environmental Protection Agency (EPA) to establish regulations based on the "Maximum Achievable Control Technology" (MACT) requiring control of air toxics emissions (including heavy metals) from major industrial sources. These regulations (i.e., emissions standards) are based on the best demonstrated control technology or practices within the industry. These standards can require new and existing facility owners/operators to meet emission limits, install emission control technologies, monitor emissions and/or operating parameters, and use specified work practices. Since 1992, the EPA has established MACT standards for many categories, including more than 20 categories that emit heavy metals (HM). The “maximum achievable control technologies” in the United States meet the definition of BAT included in Annex III and are generally similar to the illustrative BATs described in Annex III. For the smaller “area sources”, the Clean Air Act provides authority for EPA to establish MACT standards or “generally available control technology” (GACT) standards to limit HM emissions. The regulations developed based on MACT and GACT are also known as National Emissions Standards for Hazardous Air Pollutants (or NESHAPs). Another mechanism for limiting emissions under the Clean Air Act is through developing regulations known as New Source Performance Standards (NSPS) which apply to new facilities built in the U.S. for various pollutants (including lead and particulate matter) for various source categories. The NSPSs establish emissions limits for new stationary sources based on best demonstrated</p>	<p><i>2006 IDR: c. States that any new facility within a major source category for which annex III identifies BAT would need to apply measures that are consistent with BAT. Describes the system of legislation under which maximum achievable control technology standards are established, e.g. for sources that emit HM. The maximum achievable control technologies for these sources are generally similar to BATs described in annex III.</i></p>	<p>In compliance</p>

Party	Response to Q. 33	Comments	Conclusion
	technologies. Further details of the specific regulations and control technologies for various source categories in the U.S.A. that apply to new sources are presented in the Table below, under question 34.”		
EC	<p><u>The consequence of competence being shared between the Community and the Member States is explained. Further it is stated that ”The industrial activities listed in Annex III are subject to the Directive on Integrated Pollution Prevention and Control (IPPC) 2008/1/EC (codified version of Directive 96/61/EC). The IPPC Directive requires the installations covered by it to operate under an integrated permit issued by the competent authorities within the Member States. This permit has to contain conditions (emission limit values or equivalent measures) based on the Best Available Techniques (BAT). BAT are defined at the EU level in the so-called BREFs (....)”.</u></p>	<p><i>2006 IDR: n.e.p. (no reply)</i> <u>Reference is made to the obligation for the competent authorities (in Member States) to require BAT when issuing a permit for industrial activities listed in Annex III. (IPPC Directive).</u></p>	<p><u>In compliance</u></p>

Table 3: Compliance with article 3.2(b), (associated provisions: art. 3.6, 3.7)

“Each Party shall, no later than the timescales specified in annex IV, apply:

(b) The limit values specified in annex V to each new stationary source within a major stationary source category. A Party may, as an alternative, apply different emission reduction strategies that achieve equivalent overall emission levels;

In cases in which an exceeding of given limit values cannot be excluded, either emissions or a performance parameter that indicates whether a control device is being properly operated and maintained shall be monitored. (Annex V, para.4)”

Category annex II	New stationary sources	Pollutant	ELV (mg/ m ³)	% O ₂ in flue gas
1	Combustion of solid and liquid fuels	PM	50	6
2	Sinter plants	PM	50	n.a
	Pellet plants:			n.a.
	(a) grinding, drying	PM	25	
	(b) pelletizing	PM	25	
3	or: (c) total plant emissions	PM	40 ^{1/}	
	Blast furnaces	PM	50	n.a
5 and 6	Electric arc furnaces	PM	20	n.a
	Production of copper and zinc (incl. Imperial Smelting furnaces)	PM	20	n.a
	Production of lead	PM	10	n.a

Category annex II	New stationary sources	Pollutant	ELV (mg/ m ³)	% O ₂ in flue gas
7	Cement industry	PM	50	n.a
8	Glass industry	Pb	5	8 tank furnace 13 pot furnace 13 day tanks
9	Chlor-alkali plants (mercury cell process)	Hg	0.01 ^{2/}	n.a
10 and 11	Hazardous waste incineration	PM	10	11
		Hg	0.05	11
	Medical waste incineration	PM	10	11
	Municipal waste incineration	PM	25	11
		Hg	0.08	11

1/ Specify limit value in g/Mg pellets produced.

2/ Specify limit value in g Hg/Mg Cl₂ production capacity

Question 34: With reference to [article 3, paragraph 2 \(b\), annex II and annex V](#), please provide details of the limit values applied to new stationary sources within a major source category. If different emission reduction strategies that achieve equivalent overall emission reductions are applied, please describe these. Please complete the table [..].

Party	Response to Q. 34	Comments	Conclusion
Austria	<p>“For several categories of new and substantially modified stationary sources emission standards have been set by ordinance. Emission limit values are differentiated according to fuel type and thermal input. More stringent limit values may be prescribed in the licensing procedure due to local/regional air quality concerns.”.</p> <p>ELVs provided are in compliance. Cat. 2: no pellet plants in Austria; Cat. 9: mercury cell process for chlor-alkali production is no longer used. Further is reference made to the relevant national legislation</p>	<p><i>2006 IDR: c.</i></p> <p><i>The values provided, comply with annex V. All categories are covered, except for pallet plants. Any new pellet plant would need a permit requiring emission control at BAT level (see answer to Q.33)..</i></p>	In compliance
Belgium	<p>Emissions of stationary sources are regulated by regional legislation. No alternative emission reduction strategies are used in Belgium. For the 3 regions references to the relevant regional legislation are given.</p> <p>The <u>Flemish region</u>: “Emission limit values referred to in table below for new stationary sources are imposed by the Flemish legislation VLAREM II (see reference under Q.3). ELVs for LCP were modified in 2004, for waste incineration in 2003.</p> <p><u>Walloon region</u>: Orders related to LCP (2002), waste incineration (2003), but “no specific legislation exists in the Walloon region regulating emission limit values of sinter plants, blast furnaces, electric arc furnaces, production of copper, zinc and lead and glass industry. Emission limit values for these sources are imposed through individual environmental permits and are based on BAT (requirements of</p>	<p><i>2006 IDR: n.c. (Based on ELVs given for category 9, 10 and 11, which were not in compliance)</i></p> <p><i>The values provided now, comply with annex V. All categories are covered.</i></p>	In compliance

Party	Response to Q. 34	Comments	Conclusion
	<p>the IPPC directive have been implemented in the Walloon permit legislation)". It is further stated: "So as a minimum the limit values for sinter plants, blast furnaces, electric arc furnaces, production of copper, zinc and lead and glass industry as mentioned in the protocol are therefore applied".</p> <p><u>Brussels-Capital region</u>: Orders related to LCP (2002) and waste incineration (2002). A de-NOx system is operated since 2006, to treat the flue gases of the incinerator. "Up to now there are no large combustion plants, no sinter and pellet plants, no cement plants, no blast furnaces, no electric arc furnaces, no production of copper, zinc and lead, no glass industry and no chlor-alkali plants present in the Brussels-Capital Region."</p> <p>For the Flemish and Walloon regions ELVs are provided (table) for all categories but 2 and 8, for the Brussels region only for Cat. 1, 7, 10 and 11. For Cat. 2 it is stated by each of the regions: "no pellet plants in Belgium (for new permits: ELV will be based on BAT guaranteeing $ELV < 25\text{mg/Nm}^3$: see answer to Q.33 and Q.26)". For Cat 8 it is stated that "construction of new plants using the Hg cell process has been prohibited since 2000". The ELVs as provided are in compliance.</p>		
Bulgaria	<p>For all categories ELVs are provided. The values are in compliance, with the exception of Cat. 9 (chlor-alkali plants) where the unit used differs from the one in annex V. Further reference is made to national legislation.</p> <p>Clarification: "(...) there is a norm included in the Regulation No.1 (SG 64/2005) for Hg emissions expressed only in mg Hg/m^3. But we do not have any operating installation which produces Cl_2 using the amalgam process. The Regulation No.1 cited above explicitly prohibits the use of the amalgam process for producing Cl_2".</p>	<p><i>2006 IDR: n.e.p. (no reply)</i> <i>All categories are covered. The values provided, comply with annex V, except for chlor-alkali plants, which is presented in mg/m^3.</i> <i>According to the clarification given the amalgam process is prohibited. Although the purpose of the ELV for Hg remains unclear, the information is satisfactory.</i></p>	In compliance
Canada	<p>"Upon signature of the Protocol, Canada stated that it intended to act in accordance with paragraph 7 of Article 3, therefore exempting it from the obligations in paragraph 2 (b), (c) and (d)". In addition Canada provided information on the ELVs it applies in a number of stationary source categories.</p>	<p><i>2006 IDR: exempted</i> <i>In accordance with art. 3.7 Canada is exempt from this obligation. Data provided for total annual emissions of each of the three HM, demonstrates Canada's achievement of the 50% reduction target.</i></p>	n.a.
Croatia	<p>For all categories ELVs are provided. The values are in compliance. That is to say that for Cat. 8 "the sum of mass concentrations of Cd, As, Co, Ni, Se, Sb, Pb, Cr, Cu and Mn, at a mass flow of 25 g/h or more is 5 mg/m^3." Reference is made for all categories to the "ELV Regulation".</p>	<p><i>The values provided, comply with annex V. All categories are covered.</i></p>	In compliance
Cyprus	<p>"Do not have new stationary sources operating in Cyprus".</p> <p>Additional information: "For new stationary sources in Cyprus, emission limit values set in Annex V of the HM protocol and the relevant EU Directives will apply."</p>	<p><i>2006 IDR: n.e.p. (incomplete info)</i> <i>No information provided on ELVs, nor (in reply to Q.33) on a system of BAT application.</i> <i>When the additional information is read in relation with the new answer to Q.33, application of ELVs as set in annex V for all source categories is plausible.</i></p>	In compliance

Party	Response to Q. 34	Comments	Conclusion
Czech Republic	<p>ELVs provided are in compliance, except for the following categories: Cat. 3, electric arc furnaces: the ELV for PM of 50 and Cat. 9: the ELV for Hg of 1g/tonne chlorine, are not in compliance; Cat. 8: no oxygen percentage given with the ELV for Pb. For medical waste incineration in Cat. 10 an extra ELV for Hg is presented. Further reference is made to the relevant national legislation.</p>	<p><i>2006 IDR: c. (Based on additional information in June 2006, providing a complete set of ELVs, including a PM value of 20 for electric arc furnaces >2.5 t/h (50 for <2.5 t/h); a Hg value of 0.01g/tonne in chlor-alkali plants; correct O₂ % for Pb value in glass industry) Values provided, comply with annex V, with the exception of values for cat. 3 (50 instead of 20), 8 (much to high may be an error) and 9 (unclear)</i></p>	In non-compliance
Denmark	<p>ELVs are provided only for Cat. 1, 7, 8, 10 and 11, they are in compliance with annex V, except for Cat. 11 where the value for PM is missing. Further reference is made to the relevant national legislation. Additional information: In the updated table the abbreviations 'NA' and 'n.a' for Cat. 2, 3, 5 and 6 and 9 in the original answer is replaced by 'NO'. Further a statement is added: "The notation "NO" - Not occurring - is given for several sources due to the fact that these sources do not exist in Denmark and the agency does not see the need for regulating these sources."</p>	<p><i>2006 IDR: n.e.p. (incomplete info) Values provided comply with annex V, except for municipal waste incineration. No ELVs presented for Cat. 2, 3, 5 and 6 and 9. No relevant additional information.</i></p>	No evaluation possible
Estonia	<p>ELVs are only provided for Cat. 1, 10 and 11, they are either not complying with annex V, or unclear: Cat. 1: the ELV for PM of 100 for both solid and liquid fuel, is not in compliance; Cat. 10 and 11: the ELVs for PM and Hg are in agreement with annex V, but the O₂% given seems out of place: instead of 11%, "6% for solid and 3% for liquid fuel". For the other categories reference is made to BAT, applied under the national IPPC regulation.</p>	<p><i>2006 IDR: no assessment For most categories are no ELVs provided. Presented values are not in compliance: Cat. 1 (100 instead of 50), or unclear: Cat. 10 and 11</i></p>	In non-compliance
Finland	<p>"A Government Decree on waste incineration (362/2003) was issued in May 2003. The Decree applies to incineration and co-incineration of waste. The Decree sets requirements for operational conditions and technical requirements such as the emission limit values for waste incineration and co-incineration plants. The Decree also regulates monitoring and measuring of emissions. The Decree implements the requirements deriving from the EU Directive 2000/76/EC on incineration of waste. The EU Directive 2001/80/EC on the limitation of emissions of certain pollutants into the air from large combustion plants with the thermal input of at least 50 megawatts is transposed to national legislation by Government Decree (1017/2002) on reduction of emissions of sulphur dioxide, nitrogen oxides and particulates. The emission limit values for dust/particulate emissions for new combustion plants are either 50 or 30 mg/m³(n) in an oxygen content of 6 or 3 per cent. In the permit procedure it is possible to set emission limit values for particulate emissions which are more stringent than those specified in the national LCP Degree if the application of BAT requires that.</p>	<p><i>2006 IDR: c. (Based on additional information in June 2006, providing ELVs for waste incineration (in addition to the ELVs for combustion plants provided when answering the 2006 Questionnaire) and the emphasis on the system of integrated permits for each (new) sources, containing specific ELVs based on BAT) Same information as provided for the 2006 IDR. The permit system is described and ELVs are presented for the categories combustion plants and waste incineration. The values are in accordance with annex V, but the oxygen percentage used with the ELVs for waste incineration differ. Additional information gives the right O₂ percentages.</i></p>	In compliance

Party	Response to Q. 34	Comments	Conclusion
	<p>Finland has used the alternative option of different emission reduction strategies to reduce heavy metal emissions from industrial sources. All significant stationary industrial sources like installations producing iron and steel, copper, nickel and zinc, cement or manufacturing of glass as well as large combustion plants, have to apply for an integrated permit where the emission limit values (10-30 mg/m³(n))for dust are issued on a case by case basis for each installation. These values are based on BAT. According to the Environmental Protection Act (86/2000) and Decree (169/2000) new installation need to apply for an environmental permit before it is allowed to commence its operations.”.</p> <p>Provides ELVs for Cat. 1, which comply with annex V and for Cat. 10 and 11, where the values for PM and Hg are in agreement with annex V, but the O₂% given seems out of place: instead of 11%, “6% for solid and 3% for liquid fuel”.</p> <p>Additional information: For cat. 10 and 11 a correction is made for the O₂%, which is indicated as 11% for all four ELVs.</p>		
France	<p>ELVs are provided for all categories of annex V and for gas turbines and engines > 50 MWth. Reference is made to the relevant national legislation. The provided values for Cat. 1, 3 and 7 are in compliance with annex V. Values given for other categories are not in agreement with annex V: Cat. 2 (both sub-categories covered?): PM 100 instead of 50 and 25; Cat. 5 and 6: PM 100 and 40 instead of 20 or 10; Cat. 8, 10 and 11: no O₂% given; Cat 9: ELV not expressed per unit Cl₂ produced. Further reference is made to the relevant national legislation.</p>	<p><i>2006 IDR: n.e.p. (no reply)</i> <i>For some of the ELVs provided units are used that differ from annex V. The ELVs for PM in sinter and pellet plants and for production of copper, zinc and lead, do not comply with annex V</i></p>	In non-compliance
Germany	<p>ELVs provided are in compliance. Cat. 2: no pellet plants in Germany; Cat. 9: mercury cell process for chlor-alkali production is not permitted. For combustion of solid fuels in Cat. 1 an extra ELV for Hg is presented. Reference is made to the relevant national legislation.</p>	<p><i>2006 IDR: c.</i> <i>The values provided, comply with annex V. All categories are covered, except for pallet plants. Any new pellet plant would need a permit requiring emission control at BAT level (see answer to Q.33).</i></p>	In compliance
Hungary	<p>“Emissions limit values to be applied for new stationary source categories were established for combustion of fossil fuels, sinter plants, blast furnaces, and electric arc furnaces, production of copper and zinc, cement industry, glass industry and chlor-alkali industry.”.</p> <p>The provided values that are applicable to new sources are in compliance, except for the following category: Cat. 9: the value for Hg of 1.5g/Mg chlorine is not in accordance with annex V. Cat. 2, pellet plants: no values given. Reference is made to the relevant national legislation.</p>	<p><i>2006 IDR: n.e.p. (incomplete info) (Based on use of a different unit for sinter plants and the observation that for chlor-alkali plants probably the ELV for existing plants was given)</i> <i>The values provided, comply with annex V, with the exception of the ELV for chlor-alkali plants, for which the same high value was reported as in 2006. In additional information provided in June 2006, it was stated that there are no pellet plants in Hungary.</i></p>	In non-compliance
Latvia	No answer	<i>2006 IDR: n.e.p. (no reply)</i>	No evaluation possible
Liechtenstein	No answer	<i>2006 IDR: n.e.p. (no reply)</i>	No evaluation possible

Party	Response to Q. 34	Comments	Conclusion
Lithuania	<p>ELVs are only provided for Cat. 1, 3 (blast furnaces), 10 and 11, together with reference to the relevant national legislation. The values comply with annex V. For Cat. 2, 3 (electric arc furnaces), 5, 6 and 9 is stated: "No installations" and for Cat. 7 and 8: "No new installations". With respect to each of these last seven categories it is stated: "Limit values for each separate installation have to be established according BAT ("Rules on Issuing, Reconsideration and Cancelling of Integrated Pollution Prevention and Control (IPPC) Permits (27-02-2002 Order No 80 of the Minister of Environment))."</p> <p>In addition ELVs are also provided (table) for Cat. 2 (sinter plants), 2 (pellet plants), 3 (electric arc furnaces), 5 and 6 (production of copper and zinc), 5 and 6 (production of lead), 7, 8 and 9. Reference is given to national legislation and the relevant BAT reference documents.</p>	<p><i>2006 IDR: n.e.p. (no reply)</i> <i>The provided values comply with annex V. No ELVs presented for Cat. 2, 3 (electric arc furnaces), 5 and 6, 7, 8 and 9.</i> <i>The additionally provided ELVs comply with annex V, (in Cat. 2 (pellet plants both grinding (value of annex V would be used for new plants) and palletizing (20 mg/m³) are OK, although the alternative value for total emissions is to high), with the exception of Cat. 5 and 6 (production of lead) where the ELV from the reference document on BAT in the Non Ferrous Metals industry allows for 15 mg/m³ PM instead of the 10 mg/m³ in annex V</i></p>	In non-compliance
Luxembourg	No answer	<i>2006 IDR: n.e.p. (no reply)</i>	No evaluation possible
Monaco	No answer	<i>2006 IDR: n.e.p. (no reply)</i>	No evaluation possible
Netherlands	<p>ELVs provided comply with annex V, except for Cat. 3, electric arc furnaces. In a note is stated: "In the Netherlands there is only one electric arc furnace (EAF) operational and its emission is not primarily determined by the quality of the filter being used but in essence by the quality of the used emission extraction techniques. For this reason the Netherlands formally allowed an ELV of 30 mg/m³ in the NeR, depending on the type of filter used by the steel plant. Under the NeR, permits can be issued containing more stringent ELV's, by means of which the Netherlands is practically compliant to the Protocol. Yet, by using an ELV of 30 mg/m³ in the NeR, the Netherlands is formally not compliant to the Protocol. Therefore the Netherlands will adjust this ELV for EAF's in the NeR in accordance with the ELV in the Protocol."</p> <p>For Cat. 1 a value of 6 % O₂ is given, which is not correct for liquid fuels.</p>	<p><i>2006 IDR: n.e.p. (incomplete info) (Based on the missing PM ELV for electric arc furnaces)</i> <i>For all categories ELVs are provided, which comply with annex V, except Cat. 3, electric arc furnaces. It is stated that the national emission guidelines (NeR), used in the permitting procedure, allow for an ELV of 30 mg/m³, although permits can be issued with more stringent ELVs. In addition it is stated that the relevant ELV in the NeR will be brought in accordance with the ELV in the Protocol.</i></p>	In non-compliance
Norway	<p>"The emission limit value for Heavy Metals is maximum 0,2 mg/Nm³ by 4-8 hour average, for one new source of heavy metal emissions, which is well within the emission limit values given in Annex V, II."</p>	<p><i>2006 IDR: n.e.p. (incomplete info)</i> <i>Incomprehensible answer</i></p>	No evaluation possible
Republic of Moldova	No answer	<i>2006 IDR: n.e.p. (no reply)</i>	No evaluation possible

Party	Response to Q. 34	Comments	Conclusion
Romania	<p>ELVs provided comply with annex V, except for the following categories: Cat. 2 and 3 (blast furnaces): the system of ELVs described, differs from that in annex V. Cat. 8: the value for Pb of 1mg is presented without reference to an O₂%; Reference is made to national legislation.</p>	<p><i>2006 IDR: n.e.p. (no reply)</i> <i>The provided ELVs comply with annex V, except for Cat. 2 and 3 (blast furnaces) where the ELVs are differently structured and for Cat. 8 where no O₂ % is indicated.</i></p>	<p>No evaluation possible</p>
Slovakia	<p>“Slovakia has applied the emission limit values to each new stationary source within a major stationary source category according to the Ministerial Decree No. 706/2002. This Decree establishes emission limits, technical requirements for and general conditions of operation of air pollution stationary sources, periods and terms of their validity, new sources and existing sources of air pollution and their facilities, list of pollutants, for which the emission limits, emission quotas and general operating conditions are established, categorisation of large and medium sources and requirements for securing the dispersion of pollutant emissions. This Decree transposed the Directives 92/112/EEC, 2000/76/EC and 2001/80/EC. Currently, the new Ministerial Decree is under preparation. Its first draft harmonises emission limit values of heavy metals in the Slovak legislation with emission limit values in the Protocol. Until the new legislation enters in force, requirements of the Protocol are satisfied individually. In these cases, the provision of the article 10 the Act No. 478/2002 on air protection is applied. According to this provision, the state administration can set up more strict emission limit values, relevant to the values in the Protocol.” Presents (table) ELVs for all categories. The values for Cat. 1, 3 (blast furnaces), 7, 10 and 11 comply with annex V. The values for Cat. 2, 3 (electric arc furnaces), 5 and 6, 8 and 9 differ from those in the annex.</p>	<p><i>2006 IDR: n.c.</i> <i>Presents current legislation (2002) dealing with ELVs, technical requirements etc. New legislation is under preparation that will harmonize national ELVs with those of the Protocol. For the time being requirements of the Protocol are satisfied individually: the state administration can apply stricter ELVs than established in current legislation. It is not indicated whether this is current practice, neither is mentioned when the new Decree is expected to come into force. The ELVs in the table are from the current Decree. A number of values does not comply with annex V.</i></p>	<p>In non-compliance</p>
Slovenia	<p>Lists relevant national legislation (with the exception of the Decree on waste incineration, ale dating from 2007). Further the permitting system is explained: “All the significant industrial sources like installations producing iron and steel, copper, nickel and zinc as well as large combustion plants have to apply for the integrated permit: Decree on activities and installations causing large-scale environmental pollution (OJ RS, No. 97/2004, 71/2007, 122/2007). According to the decree new installations need to apply for an environmental permit before it is allowed to commence its operation. The emission limit values for particles and heavy metals specified in the permit shall be based on BAT (best available technique).” ELVs provided comply with annex V, except for the following categories: Cat. 7: it is unclear whether installations allowed to emit 150 mg/m³ could have a production capacity of 50 tonnes per day or not. Cat. 8: no ELV presented for Pb. Additional information: “ELV of 150 µg/m³ for particulate matter, which refers in Slovenian legislation to the mass flow from the stack smaller than 0,5 kg/hour,</p>	<p><i>2006 IDR: n.c.</i> <i>The provided ELVs comply with annex V, except for Cat. 7, where there are doubts about the presented sub-category and for Cat. 8 where no ELV for Pb is presented.</i> <i>The additional information explains that the ELV originally given for cement industry is not relevant for Cat. 7, however, no new value is provided. The ELVs reported for Cat. 6 comply with annex V.</i></p>	<p>No evaluation possible</p>

Party	Response to Q. 34	Comments	Conclusion
	<p>is therefore for Category 7 not relevant.”. ELVs for Pb are provided for glass industry, these are 3, 0.8 or 0.5 mg/m³, depending on the type of glass produced; the % O₂ in flue gas, as specified in annex V for this Cat., are applied. Reference is made to legislation.</p>		
Sweden	<p>States that it has implemented EU Directives with stricter or equal compulsory emission standards for Cat. 1, 7, 10 (hazardous waste) and 11. Reference to national legislation is provided. It is further stated that no new plants in Cat. 2 (sinter plants), 3, 5 and 6, 8, 9 and 10 (medical waste) are planned or in operation. ELVs are provided for Cat. 2 (pallet plants), which comply with annex V. Additional information: “As SE has answered in the questionnaire there are no new installations of the inquired source categories in Sweden and therefore no ELVs to report. SE apply individual permitting in accordance with the Environmental Code (1998:808) which requires the use of BAT.”</p>	<p><i>2006 IDR: c. (Based on the statement that no permits regarding the installations listed in annex II have been issued since entry into force of the Protocol) Only for pellet plants ELVs are provided. No relevant additional information</i></p>	<p>No evaluation possible</p>
Switzerland	<p>“Applies emission limit values for particulates and selectively for cadmium, lead and mercury as a general limitation for all new and existing sources according to annex 1 of the 1986 Ordinance on Air Pollution Control (OAPC). For certain sources categories, there are more stringent limitations according to OAPC annex 2. “ ELVs are provided for the categories. 1, 3 (electric arc furnaces), 7, 8, 10 and 11. For Cat. 9 it is stated that new installations are only allowed with membrane process without Hg. From the provided ELVs those for Cat. 1 and 7 comply with annex V. For ELVs for Cat. 3 (electric arc furnaces), 8 and 10 (medical waste), evaluation is not possible, because other units than mg/m³ are used and/or the O₂ % is missing. The ELVs for Cat. 10 and 11 (municipal waste) are in non-compliance as for Hg a value of 0.1 mg/m³ is applied as opposed to 0.05 and 0.08 mg/m³ respectively. No ELVs for Cat. 2, 3 (blast furnaces) and 5 and 6 (not occurring in Switzerland).</p>	<p><i>2006 IDR: n.c. Some values do not comply with annex V some others are not assessable.</i></p>	<p>In non-compliance</p>
United Kingdom	<p>“Note that these are limits associated with application of BAT, in many sectors no new installations have been built or proposed. All legislation would be under IPPC Directive implemented in UK through Pollution Prevention and Control (to be superseded in April 2008 by The Environmental Permitting Regulations 2007 in England and Wales).” ELVs provided comply with annex V, except for category 9, were for Hg 0.2-0.5 g/tonne Cl₂ capacity is given as opposed to 0.01g. No ELV provided for Cat. 2.</p>	<p><i>2006 IDR: n.e.p. (incomplete info) Provided ELVs for all but one of the categories. One ELV (Cat. 9) does not comply with annex V.</i></p>	<p>In non-compliance</p>
United States	<p>“The United States is currently utilizing the alternative approach of applying different emission reduction strategies that achieve equivalent overall emissions levels to meet its obligations under article 3, paragraph 2(b). The U.S. MACT regulations for some source categories include emission limit values (ELVs) for new sources that are somewhat different from the ELVs in Annex V of the Protocol. For example, for two source categories (Primary Lead Production and Secondary Lead Production), different metrics are used for the ELVs in the</p>	<p><i>2006 IDR: n.c. (Based on presented values that are in non-compliance and missing values for a number of categories.) It is stated that an alternative emission reduction strategy is used. Two questions: (a) is this really an alternative strategy and (b) is there equivalence?</i></p>	<p>No evaluation possible</p>

Party	Response to Q. 34	Comments	Conclusion
	<p>United States. The EPA has concluded that these ELVs are just as effective, or maybe more effective, at reducing HM emissions compared with the ELVs in the Protocol. For another two source categories (Hazardous Waste Combustors and Primary Copper Smelters), the United States has a range of ELVs for various processes and release points, with some ELVs higher and some ELVs lower than the Protocol.</p> <p>Any new source built in the in the U.S. would need to apply BAT, and the U.S. has a range of ELVs for a number of source categories that are based on best demonstrated technologies. Moreover, the U.S. has already achieved significant reductions in emission of heavy metals (as described in Question 32 above), we conclude that the U.S. is meeting its obligations under article 3, paragraph 2 (b) of the Protocol.</p> <p>Nevertheless, further details of the ELVs and control technologies applied in the U.S.A. for new sources are presented in the following table:".</p> <p>ELVs are presented for the categories of annex II, except for Cat. 2 (pellet plants), 6 (zinc production) and 8 (for Pb emissions).</p> <p>The PM values, given for Cat. 6: (copper smelting) as separate values for specific installations and for Cat. 7, are not to be compared with the annex V values.</p> <p>The ELV for PM from Cat. 6 (lead smelting), is 50 instead of 10. For Cat. 10 and 11 the ELV for PM from hazardous and medical waste incineration is respectively 2.4-24 and 24, instead of 10; the ELV for Hg from hazardous waste incineration is 0.005-0.085, instead of 0.05.</p> <p>Additional information: a paper is provided (see attachment), originally shared with the EB at its 24th session (Dec. 2006), and not included in the 1st HM IDR as presented in the 9th IC report (Oct. 2006). The paper presents a comparison between 2 approaches: 'LRTAP Exact and 'Post-US rules' with a purpose to prove equivalence of the USA's alternative approach.</p>	<p><i>Concerning (b): The only information regarding such equivalence is the conclusion (drawn on the basis of confidence that any new source built, would be required to meet BAT, and of the existence of a range of ELVs based on BAT), that the US is meeting its obligation under art. 3. 2.(b). There is no further information to support that claim.</i></p> <p><i>Apart from stricter ELVs for large municipal waste incinerators, the table provides in essence the same data as the reply to the 2006 Questionnaire. Reference is made to specific regulations (NESHAP (two additional ones) and NSPS) per category. In the current reply the observation is added that any new source would be required to apply BAT. As in 2006, a review of regulations for medical waste incineration is mentioned. Finalizing is now expected one year later, in 2009. Additionally, a review of regulations for hazardous waste incinerators is planned, expected to be complete in 2008. In these sectors the current ELVs for PM are not at the level of ESP or FF, contrary to the relevant ELVs in annex V.</i></p> <p><i>Most likely the additional information. does not describe an alternative strategy, but the same strategy as in art.3.2(b), 1st sentence, with different ELVs. Furthermore, instead of comparing total emission levels from actual sources under both 'strategies', virtual emission reductions since 1990 are compared. It seems to be ignored that the base year concept is relevant for the obligation under art. 3.1 not for the obligations under art. 3.2. Moreover, the comparison between the 2 scenario's does not demonstrate equivalence of the US' alternative approach as it is biased due to the methods used to calculate reductions in other source categories than those included in the Protocol. The 'Post-US rules' scenario takes the total emission reduction into account, reached since 1990 through US regulations (including reductions due to</i></p>	

Party	Response to Q. 34	Comments	Conclusion
		<i>'actions' affecting industry, even closing of facilities largely because of EPA regulations), while in the 'LRTAP Exact' scenario emissions from these other source categories fictitiously are kept equal to those of 'the base year' 1990.</i>	
EC	<u>The consequence of the competence being shared between the Community and the Member States is explained. ELVs provided for categories 1, 10 and 11, comply with annex V. Further it follows from the answer to Q.33 that to establish ELVs for the other categories (based on BAT as defined in the BREFs), is the competence of the Member States.</u>	<i>2006 IDR: n.e.p. (no reply) For sources (fully) within its competence the ELVs presented comply with annex V</i>	<u>In compliance</u>

Table 4: Compliance with article 3.3, and annex VI, paras. 1 - 4 (associated provision: art. 3.6)

"Each Party shall apply product control measures in accordance with the conditions and timescales specified in annex VI".

Conditions and timescales paras. 1 – 4 annex VI	As of 29 June 2004: Petrol for on-road vehicles: Pb ≤ 0.013 g/l	Petrol sales ≤ 0,5 % of total, for old on-road vehicles: Pb ≤ 0.15 g/l.
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Question 37: With reference to article 3, paragraph 3 and annex VI, paras. 1 to 4, please describe the product control measures being applied to marketed petrol in accordance with the conditions and timescales specified in annex VI. If leaded petrol with a lead content above 0.013 g/l is marketed for use by old on-road vehicles, indicate what percentage of total petrol sales it represents.

Party	Response to Q. 37	Comments	Conclusion
Austria	"The lead content of petrol must not exceed 0.005 g/l. Leaded petrol is completely banned since 1993".	<i>2006 IDR: c. Lead content in compliance; no exemption.</i>	In compliance
Belgium	"By a Royal Decree of 1987 the lead concentration in petrol was reduced from 0.4 to 0.15 gram per litre. The Royal Decree of 29 December 1992 installed a lower price for petrol without lead. Since then, less lead containing fuel was consumed. From the first of April 1999 on, the petrol distributing sector in Belgium brought on the market a fuel containing a substitute for lead. From this date on, practically no lead containing fuel was sold anymore. In compliance with the European Directive 98/70/EC, the commercialisation of leaded petrol is prohibited in Belgium from the first of January 2000. From 1 January 2000 the unleaded petrol sold in Belgium must - according to the fuel characteristics of the European Directive - have a lead content below 0,005 g/l. European Directive 97/70 was implemented in national legislation by the Royal Decree of 20 March 2000 concerning the name, the characteristics en the lead content of petrol fuels for motor vehicles (amended by 22 February 2005)."	<i>2006 IDR: c. Lead content in compliance; no exemption.</i>	In compliance

Party	Response to Q. 37	Comments	Conclusion
Bulgaria	“Starting from 1st of January 2004, there is no leaded petrol production and consumption in Bulgaria. The unleaded petrol, offered for sale on domestic market is in compliance with the Regulation on the requirements for the liquid fuels’ quality, and for the terms, procedure and methods of their control adopted by Decree No. 156/2003 of the Council of Ministers (SG 66/2003, last amended SG 76/2007). According to this regulation, the lead content in the unleaded petrol is restricted to less than 5 mg/l since 1st of January 2004.”.	<i>2006 IDR: n.e.p. (no reply)</i> <i>Lead content in compliance; no exemption.</i>	In compliance
Canada	“Lead in gasoline for on-road vehicles was effectively phased out in December 1990 with the <i>Gasoline Regulations</i> . The <i>Gasoline Regulations</i> set a maximum concentration of lead in gasoline produced, imported, sold or offered for sale in Canada at 5 mg/L. The lead limit is 30 mg/L for engines designed to use leaded gasoline and used to power farm machinery, boats and large trucks. Gasoline for use in aircraft is exempt from the lead limits and until January 1, 2008, gasoline for use in competition vehicles was also exempt. On December 22, 2007, the Government of Canada proposed amending regulations that would extend the exemption for competition vehicles until January 1, 2009 and would remove the regulatory provisions which allow the production, import and sale of leaded gasoline for use in farm machinery, boats, and large trucks. These amendments are planned to be finalized in early 2008.”.	<i>2006 IDR: c. (Compliance was concluded although use of petrol with 0.030 g/l in large trucks was reported, as was an exemption for competition cars)</i> <i>Lead content in compliance; there are exemptions:</i> ▪ <i>use of petrol with 0.030 g/l allowed for large trucks (probably finalized early 2008),</i> ▪ <i>petrol for competition cars is exempted from the Pb limits. No definition of ‘competition cars’ and no indication what percentage of total petrol sales leaded petrol represents.</i>	In non-compliance
Croatia	“Lead petrol is prohibited to be placed on the market since 1 January 2006. Eurosuper petrol (EURO IV) and Eurosuper diesel (EURO IV) are usually placed on the market in Croatia and since 2008 certain amount of EURO V fuel is available across the State.”.	<i>Leaded petrol is prohibited</i>	In compliance
Cyprus	“Leaded petrol was phased out in April 2004. No leaded petrol is used by old cars.”.	<i>2006 IDR: c.</i> <i>Leaded petrol banned; no exemption.</i>	In compliance
Czech Republic	“The sale of leaded petrol was finished on 1 January 2001 pursuant to the Decree of the Ministry of Transport and Communications No. 244/1999 Coll. The Decree of the Ministry of Industry and Trade No. 229/2004 Coll. set the maximum permitted amount of lead in all types of automobile petrol to 5 mg/l.”.	<i>2006 IDR: c.</i> <i>Lead content in compliance.</i>	In compliance
Denmark	“No lead containing petrol is sold on the market”.	<i>2006 IDR: c.</i> <i>Minimal answer. <u>Conclusion based partly on the 2006 IDR</u></i>	In compliance
Estonia	“Leaded fuel is prohibited since 01.01.2000.”.	<i>2006 IDR: no assessment</i>	In compliance
Finland	“Leaded petrol has not been used in Finland since 1993. The Government Decision on the quality control of petrol and diesel fuels (786/1999) prohibits the marketing of leaded petrol from January 1, 2000.”.	<i>2006 IDR: c.</i> <i>Leaded petrol banned.</i>	In compliance
France	Sale of leaded petrol is completely finished since January 1, 2000	<i>2006 IDR: n.e.p. (no reply)</i> <i>Leaded petrol banned.</i>	In compliance
Germany	“Leaded petrol has been phased out.”.	<i>2006 IDR: c.</i>	In compliance

Party	Response to Q. 37	Comments	Conclusion
		<i>Minimal answer. <u>Conclusion partly based on the 2006 IDR</u></i>	
Hungary	“Large scale development projects have been implemented to reduce the lead content of petrol which is now below 0,013 g Pb/litre petrol. According to Ministerial Decree 5/2000.(II.16.) GM 0,005g/l Pb concentration is allowed in petrol from 1 January 2005.”.	<i>2006 IDR: c. Lead content in compliance.</i>	In compliance
Latvia	No answer	<i>2006 IDR: n.e.p. (no reply)</i>	No evaluation possible
Liechtenstein	No answer	<i>2006 IDR: n.e.p. (no reply)</i>	No evaluation possible
Lithuania	“The lead content in marketed petrol on-road vehicles should not exceed 0.005 g/l. Petrol with lead content above 0.005 g/l (not more than 0.15 g/l) can be marketed (up to 0.5% total petrol sales) for use by old on-road vehicles after agreement with the Ministry of Economy, the Ministry of Environment and the Ministry of Transport. There were no sales of petrol with lead content above 0.005 g/l.”.	<i>2006 IDR: c. Lead content in compliance; exemption as allowed under para. 1</i>	In compliance
Luxembourg	No answer	<i>2006 IDR: n.e.p. (no reply)</i>	No evaluation possible
Monaco	“L'essence avec plomb n'est plus commercialisée en Principauté de Monaco depuis le 1er janvier 2000. Par ailleurs, celle vendue en Principauté de Monaco provient de France et doit être conforme aux normes européennes en vigueur.”.	<i>2006 IDR: n.e.p. (no reply) Leaded petrol banned.</i>	In compliance
Netherlands	“The sale of leaded petrol with more than 0.005 g/l is legally prohibited since 2000 by Directive 98/70/EC, relating to the quality of petrol and diesel fuels and Directive 2003/17/EC amending Directive 98/70/EC. The Directives have been implemented in the Dutch Decree on quality requirements for fuel road traffic (Besluit kwaliteitseisen brandstoffen wegverkeer, Stb. 1999, 566). Because of sufficiently available lead replacing alternatives the Netherlands did not provide for allowances of small amounts of leaded petrol for old-timers.”.	<i>2006 IDR: c. Lead content in compliance; no exemption.</i>	In compliance
Norway	“According to "Regulations relating to the quality of petrol and auto diesel to be used by on-road vehicles", laid down 22.03.2000 in national legislation in Norway, the lead content of marketed petrol intended for on-road vehicles shall not exceed 0,005 g/l. Old preserved on-road vehicles may use petrol with a lead content of maximum 0,15 g/l, however, the sales must not exceed 0,5% of total yearly consumption of petrol. The leaded petrol is not available at conventional petrol stations and it is assumed that the used volume of leaded petrol is much less than the limit of 0,5 % of the total yearly petrol volume sold” .	<i>2006 IDR: c. Lead content in compliance; exemption as allowed under para. 1</i>	In compliance
Republic of Moldova	No answer	<i>2006 IDR: n.e.p. (no reply)</i>	No evaluation possible
Romania	“In Romania is placing on the market only the petrol with 0.005g/l lead content.	<i>2006 IDR: n.e.p. (no reply)</i>	In compliance

Party	Response to Q. 37	Comments	Conclusion
	<p>The Council Directive 2003/17/EC amending Directive 98/70/EC relating to the quality of petrol and diesel fuels was transposed into Romanian legislation through the Governmental Decision no.689/2004 on the establishing the conditions for placing on the market of petrol and diesel fuels, modified and completed through the GD 15/2006, that foreseen 0.005g/l as maximum content of lead. In order to apply the provisions of this GD, the Ministry of Economy and Finance has the responsibility of the implementation on the system for monitoring the quality and quantity of the petrol and diesel fuel marketed on distribution stations. This system was approved through the Ministerial Order of Ministry of Economy and Trade no. 742/2004. The annex of this MO was replaced through MO 58/2006. The qualitative monitoring of petrol and diesel fuel is achieved through sampling and analysis performed by testing laboratories, product certification bodies or third party inspections bodies, accredited by the Ministry of Economy and Finance.</p> <p>On the system for monitoring the quality and quantity of the petrol and diesel fuel, one of the 12 analysed parameters for petrol is lead content, in accordance with the testing method foreseen in SN EN 228/2004.”</p>	<p><i>Lead content in compliance; no exemption.</i></p>	
<p>Slovakia</p>	<p>“Since 1998 only unleaded petrol is produced, imported and marketed in Slovakia. The lead content of marketed petrol intended for on-road vehicles is lower than 0,013 g/l (the lead content of petrol for on-road vehicles may not exceed 0,005 g/l). Requirements for the quality of fuels, on the maintenance of fuel documentation were regulated by the Ministerial Decree No. 268/1997. This Decree entered into force on 1 January 1998. The Decree was substituted by the Ministerial Decree No. 53/2004. This Decree fully transposed the Directives 98/70/EC, 2003/17/EC, 1999/32/EC and 2005/33/EC. Fuel quality, including lead content is checked by the Slovak Environmental Inspectorate regularly.”</p>	<p><i>2006 IDR: n.e.p. (incomplete info)</i> <i>Lead content in compliance; no exemption.</i></p>	<p>In compliance</p>
<p>Slovenia</p>	<p>“The goal of National Program for phasing out lead in gasoline in Slovenia (September 1998) was to abandon the leaded motor gasoline, which was reached till January 2001. Since then no more leaded gasoline is on Slovenian market. Unleaded gasoline on Slovenian market has allowed concentration of lead 0.005 g/l, which is also regulated in national legislation Regulation of the quality of liquid fuels (OJ RS, No. 78/2000).”</p>	<p><i>2006 IDR: c.</i> <i>Lead content in compliance; no exemption.</i></p>	<p>In compliance</p>
<p>Sweden</p>	<p>“The limit value for lead in petrol is 0.005 g/l (Chemical act, the same as in the EU legislation). The quality is followed-up based on industry reports on depot checks and on official spot-checks at depots and filling stations.”</p>	<p><i>2006 IDR: c.</i> <i>Lead content in compliance; no exemption.</i></p>	<p>In compliance</p>
<p>Switzerland</p>	<p>“Switzerland phased out the use of leaded petrol for on-road vehicles by 1 January 2000. Only unleaded gasoline (with a lead content lower than 0,005 g/l) is sold since 1.1.2005 for on-road vehicles in Switzerland.”</p>	<p><i>2006 IDR: c.</i> <i>Lead content in compliance; no exemption.</i></p>	<p>In compliance</p>
<p>United Kingdom</p>	<p>“In the UK all new petrol-engined cars have been fitted with catalytic converters and have had to use unleaded petrol since January 1993. The general marketing of leaded petrol in the UK has been banned since 1 January 2000 under EU</p>	<p><i>2006 IDR: c.</i> <i>Lead content in compliance; no exemption.</i></p>	<p>In compliance</p>

Party	Response to Q. 37	Comments	Conclusion
	Directive 98/70/EC. Both unleaded and lead replacement petrol is widely available in the UK.”		
United States	“Product control obligations in the Protocol for marketed petrol have been met through a ban on the sale of leaded fuel for highway vehicle use since 1996. The US EPA working definition of “unleaded” gasoline specifies that gasoline lead content cannot exceed 0.05 gram of lead per gallon (0.013g/l), [38FR1255, January 10, 1973]. Thus, the sale or use of gasoline containing alkyl-lead (greater than 0.013g/l) is now prohibited in on-road vehicles [40CFR Part 80.22].”	<i>2006 IDR: c. Lead content in compliance; no exemption.</i>	In compliance
EC	“Since 1 January 2002 all petrol sold in the EU is unleaded.”	<i>2006 IDR: n.e.p. (no reply) Lead content in compliance; no exemption.</i>	<u>In compliance</u>

Table 5: Compliance with article 3.3, and annex VI, para. 5 (associated provision: art. 3.6)

“Each Party shall apply product control measures in accordance with the conditions and timescales specified in annex VI”.

Conditions and timescale para 5 annex VI	As of 29 December 2008:	
	1. Alkaline manganese batteries prolonged use (except button cells): Hg ≤ 0.05 % by weight; 2. Other alkaline manganese batteries (except button cells): Hg ≤ 0.025 % by weight	New applications of battery technology. Or battery use in new products exempted if disposal in an environmentally sound manner is safeguarded.

*Question 38***: With reference to article 3, paragraph 3, and annex VI, paragraph 5, please describe the measures applied to limit the mercury content in batteries, in accordance with the conditions and timescales specified in annex VI. Please complete the table [...].

Note: In the Internet version of the Questionnaire this question starts with an improper introduction “The obligation will become effective after 23 October 2011”.

The Questionnaire as a Word document gives, in a footnote, the correct date upon which this obligation will become effective: “after 29 December 2008”.

Party	Response to Q. 38	Comments	Conclusion
Austria	For both alkaline manganese batteries, prolonged use, and other alkaline manganese batteries (except button cells), the limit for Hg content is 0.0005 % per weight (Ordinances 1990/2000).	<i>Mercury content in compliance.</i>	Voluntarily implemented
Belgium	“Not mandatory”	<i>In reply to the equivalent question from the 2006 Questionnaire, which was used for the 2006 IDR, adequate information was given: “Concernant l’usage du mercure dans les piles, la Belgique a traduit les dispositions communautaires de la directive 91/157/CEE, via l’arrêté royal du 20.8.2000”. No information. In the answer to Q32 it is stated, with</i>	<u>Not applicable</u>

** Not mandatory at the date the 2008 Questionnaire had to be completed. The obligation came into force on 29 December 2008.

Party	Response to Q. 38	Comments	Conclusion
		<i>reference to Directive 2006/66/EC (batteries): “en cours de transposition”.</i>	
Bulgaria	“According to paragraph 5 of the Annex VI, as a country with economy in transition Bulgaria has the obligation to achieve concentration levels which do not exceed these listed in the annex, ten years after ratifying the HM Protocol (in 2011). Nevertheless Bulgaria transposed EC directives on batteries and accumulators containing certain dangerous substances in the Regulation on the requirements for marketing batteries and accumulators and for treatment and transportation of spent batteries and accumulators (CM Decree 144/2005, SG 58/2005).”. No data in the table.	<i>Claims an extended timeframe according to para 5 of annex VI (which is 29.12.2013). However, it did not, as required under said paragraph, made a declaration about its intention to adopt a ten-year period when ratifying. So a normal timeframe (29.12.2008) applies. States that EC directives on batteries are transposed in national legislation. No ELVs or measures mentioned.</i>	<u>Not applicable</u>
Canada	States that alkaline manganese batteries, prolonged use, and other alkaline manganese batteries, except button cells, do not contain mercury.	<i>No mercury in alkaline manganese batteries.</i>	Voluntarily implemented
Croatia	No answer		<u>Not applicable</u>
Cyprus	No answer		<u>Not applicable</u>
Czech Republic	“Pursuant to the Act No. 185/2001, Coll. on wastes, as amended, it is prohibited to produce and import batteries and accumulators containing more than 0.0005 mass % of mercury, incl. the devices with the in-built batteries and accumulators. Further, the subjects handling the alkaline-manganese batteries containing more than 0.025 mass % of mercury or batteries or accumulators containing more than 0.0005 mass % of mercury, with the exception of alkaline-manganese batteries, or more than 25 mg of mercury per one cell, with the exception of alkaline-manganese batteries or more than 0.025 mass % of cadmium, or more than 0.4 mass % of lead, are obliged to ensure separated collection, use and disposal of these alkaline-manganese batteries.”. In addition it is indicated (table) that the Hg limit for alkaline manganese batteries, prolonged use, is 0.0005 mass % and for other alkaline manganese batteries (except button cells), 2 mass %.	<i>Mercury content for prolonged use batteries is in compliance, for other alkaline manganese batteries the information in text and table seem in contradiction, probably button cells are described.</i>	<u>Not applicable</u>
Denmark	For both alkaline manganese batteries, prolonged use, and other alkaline manganese batteries (except button cells), the limit for Hg content is 0.0005 % per weight (Statutory Order no 1044 of 16 December 1999)	<i>Mercury content in compliance.</i>	Voluntarily implemented
Estonia	No answer		<u>Not applicable</u>
Finland	“The Government Decision on batteries and accumulators including certain dangerous substances (105/1995) have been issued in 1995 and complemented in 1999 (17/1999). These decisions include restrictions and/or bans on marketing of batteries and accumulators exceeding defined amounts of Hg, Cd and Pb. The Government Decree on restricting the use of dangerous substances in certain electric and electronic equipment was introduced in 2004 (853/2004). This decree implements the EU Directive (2002/ 95/EC). Electrical components: New electric and electronic equipment placed on the market from 1 July 2006 shall not contain	<i>Mercury content in compliance.</i>	Voluntarily implemented

Party	Response to Q. 38	Comments	Conclusion
	mercury, lead or cadmium. Exemptions included for instance for some type of fluorescent lamps from mercury restrictions. Measuring devices: New electric and electronic equipment placed on the market from 1 July 2006 shall not contain mercury, lead or cadmium. Exemption for some uses specified.”. In addition it is indicated (table) that the Hg limit for both alkaline manganese batteries, prolonged use, and other alkaline manganese batteries is 0.0005 % per weight.		
France	Refers to a Decree No 99-347 (1999), modified by Decree No 99-1171 and abrogated by Decree No 2007-1467 implementing Directive 98/101/EC. Limit for Hg content is 0.05% for batteries with prolonged use, 0.0005% for other alkaline manganese batteries. Further reference is made to national measures (2000) limiting the use of mercury containing measuring instruments, in particular thermometers.	<i>Mercury content in compliance</i>	Voluntarily implemented
Germany	For both alkaline manganese batteries, prolonged use, and other alkaline manganese batteries (except button cells), the limit for Hg content is 0.0005 % per weight (Battery Directive 2006/66/EC will be transposed into national law)	<i>In reply to the equivalent question from the 2006 Questionnaire, which was used for the 2006 IDR, adequate information was given: EC Directive 98/101/EC (on batteries) incorporated through German Battery Ordinance (Batterie-Verordnung). Since September 2001 are batteries with >5 ppm Hg not allowed (button cells exempted). Mercury content in compliance. Reference given to Directive 2006/66/EC and national implementation legislation under preparation (Note: implementation date for the Directive is 26-09-2008).</i>	Voluntarily implemented
Hungary	For both alkaline manganese batteries, prolonged use, and other alkaline manganese batteries (except button cells), the limit for Hg content is 0.0005 % per weight (Joint Ministerial Decree 41/2000.(XII.20.) EüM-KöM, Ministerial Decree 9/2001.(IV.9.) KöM)	<i>Mercury content in compliance.</i>	Voluntarily implemented
Latvia	No answer		<u>Not applicable</u>
Liechtenstein	No answer		<u>Not applicable</u>
Lithuania	No answer		<u>Not applicable</u>
Luxembourg	No answer		<u>Not applicable</u>
Monaco	“Les piles et accumulateurs commercialisés en Principauté de Monaco proviennent de l’Union Européenne et leurs caractéristiques techniques sont conformes à la réglementation qui y est en vigueur.”.	<i>Refers to other Parties not to its own legislation</i>	<u>Not applicable</u>
Netherlands	“Following voluntary agreements with industry since the 80s, the Battery Disposal Decree came into effect in 1995 (also implementing directive 91/157/EEC), setting limit values for mercury: 0.025% in alkaline batteries	<i>Mercury content in compliance.</i>	Voluntarily implemented

Party	Response to Q. 38	Comments	Conclusion
	<p>(0.05% for prolonged use). In 2000 the decree was amended (Off. Journal 2000, 487), prohibiting trade of all batteries with more than 0,0005% mercury (excl. button cells with less than 2% mercury), thus implementing Directive 98/101/EC. This content is the natural background value of mercury. Thus during the production process of batteries no mercury is added. Producers are responsible for the collection and treatment of used batteries. The collection rate is high in the Netherlands, 83% in 2006, and therefore a decreasing number of batteries including button cells are disposed of in the residual household waste destined for incineration.”.</p>		
Norway	<p>“Not mandatory”.</p>	<p><i>In reply to the equivalent question from the 2006 Questionnaire, which was used for the 2006 IDR, adequate information was given: according to Regulation no. 922 of 01.06.2004 batteries with >5ppm Hg are prohibited (button cells 2%). No information given in reply to the 2008 Questionnaire.</i></p>	<p><u>Not applicable</u></p>
Republic of Moldova	<p>No answer</p>		<p><u>Not applicable</u></p>
Romania	<p>No answer</p>		<p><u>Not applicable</u></p>
Slovakia	<p>“Slovakia has applied the limit for the mercury content in batteries according to the Act No. 223/2001 on waste, as amended. Effective from 1 July 2001, it is prohibited to place on the market batteries and accumulators containing over 0,0005 % of mercury by weight.”.</p>	<p><i>Mercury content in compliance.</i></p>	<p>Voluntarily implemented</p>
Slovenia	<p>“Directives 91/157/EEC, 93/86/EEC and 98/101/EC were transferred to national legislation. Measures applied to limit the mercury content in batteries are regulated in Rules on the management of batteries and accumulators containing dangerous substances (OJ RS, No. 104/00) and Rules on the management of waste (OJ RS, No. 84/1998, 45/2000, 20/2001, 13/2003). These regulations include restrictions and bans on marketing of batteries and accumulators exceeding defined amounts of Hg, Cd and Pb. Batteries and accumulators are allowed to place on market if they contain less than 0.0005% of Hg per weight battery or accumulator.”.</p>	<p><i>Mercury content in compliance.</i></p>	<p>Voluntarily implemented</p>
Sweden	<p>For both alkaline manganese batteries, prolonged use, and other alkaline manganese batteries (except button cells), the limit for Hg content is 0.0005 % per weight (Swedish statute code: 1997:645)</p>	<p><i>Mercury content in compliance.</i></p>	<p>Voluntarily implemented</p>
Switzerland	<p>For both alkaline manganese batteries, prolonged use, and other alkaline manganese batteries (except button cells), the limit for Hg content is 0.0005 % per weight (2005 Ordinance on Risk Reduction related to Chemical Products)</p>	<p><i>Mercury content in compliance.</i></p>	<p>Voluntarily implemented</p>

Party	Response to Q. 38	Comments	Conclusion
United Kingdom	No answer	<i>In reply to the equivalent question from the 2006 Questionnaire, which was used for the 2006 IDR, adequate information was given: the regulations for the Hg content of alkaline manganese batteries under Statutory Instrument no. 232 are in line with the requirements of the Protocol. No information given in reply to the 2008 Questionnaire.</i>	<u>Not applicable</u>
United States	“Product control obligations in the Protocol to limit the mercury content in batteries have been met by the U.S. through implementation of the Mercury-Containing and Rechargeable Battery Management Act of 1996. In 1996 the United States prohibited the sale of any alkaline-manganese battery containing intentionally introduced mercury, except button cells containing up to 25 mg mercury (Mercury-Containing and Rechargeable Battery Management Act). Supplementing this US Federal law are an estimated 27 existing State battery laws and 18 proposed State laws which either ban battery manufacture, sale, and distribution or impose mercury-content limits for certain types of batteries.”	<i>The sale of alkaline-manganese batteries containing intentionally introduced Hg (except for button cells) is prohibited since 1996.</i>	Voluntarily implemented
EC	<u>For both alkaline manganese batteries, prolonged use, and other alkaline manganese batteries (except button cells), the limit for Hg content is 0.0005 % per weight (Batteries Directive (2006/66/EC).</u>	<i><u>Mercury content in compliance.</u></i>	<u>Voluntarily implemented</u>

Table 6: Compliance with Article 5.1

“Each Party shall develop, without undue delay, strategies, policies and programmes to discharge its obligations under the present Protocol”.

Question 32: With reference to article 5, paragraph 1, please provide details of the national strategies, policies and programmes your country has developed to discharge its obligations under the Protocol.

Party	Response to Q. 32	Comments	Conclusion
Austria	“For new or modified industrial installations a permit is required according to the Industrial Code (1994) and the Clean Air Act for Steam Boilers (1989). Emission limit values and/or measures according to best available technology have to be determined in the licensing procedure; these provisions have been introduced in the 1980s. Permits for large installations had to be adapted to technical progress according to Council Directive 96/61/EC. For several categories of (new and existing) stationary emission sources explicit emission limit values and BAT requirements have been set by ordinance. Leaded petrol had been banned in the early 1990ies. Measures concerning products have been enacted on national level, e.g. restrictions of the heavy metal	<i>2006 IDR: c. Describes strategies, policies, programmes and measures for stationary sources and for products. Reference is made to the relevant legislation.</i>	In compliance

Party	Response to Q. 32	Comments	Conclusion
	<p>content of pigments, fluorescent lamps, engine oil and others, as well as on EU level (e.g. Directive 2002/95/EC on the restriction of the use of certain hazardous substances in electrical and electronic equipment).</p> <p>Exceedances of air quality limit values for particulate matter are the driving force for regional measures to reduce emissions from stationary and other sources. The national strategy for achieving the Kyoto target contains several measures that also contribute to reducing energy use and thus emissions from energy conversion. Efficient use of resources and raw materials is one of the targets of the Austrian Waste Management act.</p> <p>From 1985 (reference year) to 2006, emissions of Cd, Pb and Hg have dropped by 64, 96 and 73 percent respectively.”.</p>		
<p>Belgium</p>	<p>The Federal government refers to an eco-label award scheme, which include restrictions on HM for specific products. Further reference is made to the Rotterdam Convention and EU legislation (implemented in federal legislation (date mentioned) or implementation in progress), in particular for products.</p> <p>Flemish region: “In 2003 a new Flemish Environmental Policy Plan (2003-2007, MINA 3) has been approved by the Flemish government. In 2007 this plan was updated and prolonged to 2010 (approval by the Flemish Government on 21 December 2007). It fixes inter alia the general strategy of the air pollution policy. Emission reduction objectives for heavy metals of 70 % for 2010 with 1995 a reference year have been set out in the MINA-3 plan. In the update this objective remained unmodified. The reduction objective of 70 % for Cadmium has already been achieved. For lead and mercury the reduction objective is in reach. Several studies determining the reduction potential of some major stationary sources (power plants, ferrous and non-ferrous metal industry, chemical industry and refineries) were used as a basis for the current reduction policy and aided in achieving the postulated reduction objectives. MINA -3 also includes the implementation of action programmes concerning fine dust. In this respect it is important to notice that the reduction of dust emissions has a positive effect on the reduction of emissions of heavy metals bound to these fine particles. A Flemish reduction plan on fine dust was agreed on 23 December 2005. [...] The Flemish Environmental Legislation (VLAREM) imposes an emission limit value towards air for all activities exceeding a set threshold value defined as total emission load. For some specific sectors more severe emission limit values have been set. See further answer to Q.34.”.</p> <p>Walloon region: The policy with regard to HM reduction focuses on the permitting system for companies. Major sources, like incinerators and combustion plants, are dealt with through applying EU directives and OSPAR decisions and regulations. There is an agreement with glass industry, in particular with respect to HM. Air quality standards are established for PM and lead.</p> <p>Brussels-Capital region: It is stated that use of lead free petrol and application</p>	<p><i>2006 IDR: c.</i> <i>Provides information on strategies and measures at the federal level and at the level of the regions, with regard to stationary sources and products</i></p>	<p>In compliance</p>

Party	Response to Q. 32	Comments	Conclusion
	<p>of BAT reduced emissions of HM. From an inventory of 7 HM emissions it is concluded that the emissions of main industrial sources respect obligations of OSPAR and those under the Protocol. The Hg emissions of the regions incinerator is below the limit in the Protocol. Measures to further reduce emissions of the incinerator and a crematorium are identified.</p>		
Bulgaria	<p>“In pursuance of article 5, §1, Bulgaria developed a National Environmental Strategy and Action Plan for the period 2000-2006, which have been adopted by the Government with Decision No. 455/2001. The Strategy envisages that in 2010 the emissions would decrease, compared to the base year 1990, as follows: - Lead - by 60%; - Cadmium - by 58%; - Mercury - by 56%.”.</p>	<p><i>2006 IDR: n.e.p. (no reply)</i> <i>Reference is made to a strategy and action plan for the years 2000-2006, only dealing with reduction targets for annual total emissions for 2010.</i></p>	<p>In compliance</p>
Canada	<p>“Canada will implement the requirements of this article through existing strategies, policies, programmes and measures addressing Heavy Metals, including: •the federal Toxic Substances Management Policy and the Canadian Council of Ministers of the Environment Policy for the Management of Toxic Substances; •the Canada-wide Standards process under the Canada-Wide Accord on Environmental Harmonization, which establishes a common vision, objectives and principles to inform the partnership of environmental management between the federal and provincial/territorial governments; •federal legislation and regulations such as the <i>Canadian Environmental Protection Act, 1999</i>; the Fisheries Act and associated regulations and instruments (eg. Environmental Codes of Practice, requests for the preparation and implementation of pollution prevention plans) which govern toxics released to air, water and soil; •provincial/territorial legislation and regulations which regulate the release of toxics to air, water and soil in their jurisdictions. •regional and ecosystem strategies, including the Northern Contaminants, the North American Regional Action Plans, the Great Lakes Water Quality Agreement, the Great Lakes Binational Toxics Strategy, the Canada-Ontario Agreement <i>Respecting the Great Lakes Basin Ecosystem</i>, the Fraser River Action Plan and St-Laurent Vision 2000 and the New England Governors / Eastern Canadian Premiers Mercury Action Plan”.</p>	<p><i>2006 IDR: c.</i> <i>The same answer as to the equivalent question in the 2006 Questionnaire.</i> <i>Refers to strategies, policies, programmes of federal and provincial/territorial governments, including those on harmonization of federal and provincial/territorial approaches, and to specific federal legislation.</i></p>	<p>In compliance</p>
Croatia	<p>“In 2002 National Environmental strategy with National Environmental Action Plan passed by Parliament (OG no 46/2002). Within the framework of this Strategy Croatia has determined its long-term emission reduction objectives for the main air pollutants. The objectives are determined in accordance with existing and future obligations under the CLRTAP and its protocols. The general objective of Croatia’s air protection policy is to achieve the first category of air quality (clean or slightly polluted air) over the entire territory within the next ten years. Framework objectives by pollutants are: •<i>Heavy metals</i>: Reduction of total emissions of lead, cadmium and mercury, including other heavy metals, by the year 2010 in relation to 1990 emissions and in accordance with obligations arising from international treaties. Phasing out leaded petrol by 2005. Reduction</p>	<p><i>Describes strategies, policies, programmes and measures for air quality, total emissions of PB, Cd and Hg and particulate matter, stationary sources and for products containing heavy metals.</i></p>	<p>In compliance</p>

Party	Response to Q. 32	Comments	Conclusion
	<p>of total emissions from existing stationary sources to the level of prescribed limit values. Formulation of the management plan for products containing heavy metals. •<i>Particulate matter</i>: The total emissions of particulate matter from stationary sources to be reduced to the level of prescribed limit values. •Harmonization of existing regulations with European guidelines and international treaties.”.</p>		
Cyprus	<p>“In the Air Emission Permits issued under the Atmospheric Pollution Control Law of 2002, emission limit values for heavy metals are specified. The emission limit values set are those included in the relevant EU Directives such as 2000/76/EC (Incineration of waste). In cases where there is no relevant EU Directive, emission limit values prescribed in other national guidance documents such as TA-LUFT and NER are followed. Furthermore, as far as lead in transport sector is concerned, it has to be mentioned that unleaded fuel has been used in vehicles since April 2004.”.</p>	<p><i>2006 IDR: c. (Measures under annex VI, para. 5 not yet mandatory)</i> <i>The same answer as to the equivalent question in the 2006 Questionnaire. Reference is made to national legislation and practices regarding stationary sources and lead in petrol</i></p>	In compliance
Czech Republic	<p>“ ‘The State Environmental Policy of the Czech Republic 2004 – 2010’ is the basic document for the national strategy, policy and programs for meeting the international commitments of the Czech Republic. In the area of heavy metals, this document stipulates, amongst other things, the continuity of dealing with urgent problems: •increase in recycling of batteries and storage batteries, especially Ni-Cd; •high emissions of microscopic dust particles (PM₁₀) and metals; •recycling of materials, including vehicles; •implementation of the Program of the Czech Republic for batteries and storage batteries; •reduction of the burden on the environment and the population from toxic metals (including the food chain); •responsible management of hazardous wastes. The targets of the State Environmental Policy are achieved through legal, economic and also voluntary instruments, instruments of strategic planning, research and development and institutional instruments, forms of international cooperation and instruments of education, enlightenment and public awareness, together with information systems. Another fundamental document is the ‘National Program to reduce emissions in the Czech Republic’, which was approved in Government Resolution No. 630 of November 11. 2007. The program is supported in achieving its targets primarily by the Act on Protection of the Air (No. 86/2002 Coll.) and its regulations for implementation and other legal regulations (amongst other things, in the area of waste management). The legal regulations in the area of the environment, and thus also in the area concerning heavy metals questions, were fully harmonized with European Union law and the directives of the European Community in the process of accession of the Czech Republic to the European Union.”.</p>	<p><i>2006 IDR: c.</i> <i>The same answer as to the equivalent question in the 2006 Questionnaire, with some update of the National program to reduce emissions in the Czech Republic. Describes strategies, policies, programmes and measures for stationary sources, including waste handling, and for products. Reference is made to the relevant legislation.</i></p>	In compliance
Denmark	<p>The primary goal for Denmark is to limit, to the greatest extent possible, the exposure of the environment and humans to heavy metals. This goal will guide efforts relating to cadmium, lead and mercury as well as efforts directed towards</p>	<p><i>2006 IDR: c.</i> <i>Provides an update of the answer to the equivalent question in the 2006 Questionnaire. Describes</i></p>	In compliance

Party	Response to Q. 32	Comments	Conclusion
	<p>other heavy metals. The strategy aims at limiting the release and use of heavy metals by substitution and secondly by promoting recycling and treatment. In 2001 a new guideline regulating the emissions to the air from all significant sources was introduced. This includes limit values. Denmark has published a Statutory Order no. 1012 of 13 November 2003 on prohibition of import and sale of products containing lead. For Cadmium Denmark has published a Statutory Order no. 1199 of 23 November 1996 on prohibition of sale, import and production of cadmium containing products. For mercury Denmark has published a Statutory Order no. 627 of 1 July 2003 on prohibition on import, sale and export of mercury and products containing mercury. We have also published a Statutory Order on limiting the use of lead containing shots. And Denmark has implemented the EU-directive 2002/96/EC on waste electrical and electronic equipment (WEEE). In addition Denmark has issued a special statutory order no. 1082 of 13.09.2007 on prohibition of import and sales of products containing lead.</p>	<p><i>strategies, policies, programmes and measures relating to all sources. New information and reference to legislation, is given with respect to products.</i></p>	
Estonia	<p>“Estonia has adopted following strategies and programs which will lead to the emission reduction of several pollutants (e.g. heavy metals): Environmental strategy until 2030, Environmental action plan until 2013, National emission reduction program for mobile and stationary sources (incl. LCP, NEC measures) 2006-2015, Greenhouse gases emissions reduction program 2003-2012.”.</p>	<p><i>2006 IDR: no assessment</i> <i>Refers to strategies, policies and programmes for stationary sources. No strategies mentioned for products. Lead in petrol is dealt with under Q.37.</i></p>	<p>In compliance</p>
Finland	<p>“The reduction of emissions of mercury, cadmium and lead from stationary sources from the level of base year 1990 (Finland has ratified the year 1990 as base year) have been reached by national measures including permitting procedure for the relevant stationary sources. The leaded petrol has not been used in Finland since 1993 and this was the most important measure in decreasing the lead emissions in 1990's. Industrial installations, combustion plants, waste incineration plants are all subject to integrated permitting procedure under Environmental Permit Act (86/2000). According to this act the emission reduction measures and limit values in permits should be based on best available techniques.”.</p>	<p><i>2006 IDR: c.</i> <i>The same answer as to the equivalent question in the 2006 Questionnaire. Describes strategies relating to stationary sources, including waste incineration, and lead in petrol. Measures regarding Hg in batteries are dealt with under Q.38.</i></p>	<p>In compliance</p>
France	<p>Gives a division of 2006 emissions into emissions of main source categories and an overall reduction percentage compared to the base year emissions. Developments that caused these reductions are mentioned. Further the ‘Plan National Santé Environnement’ (PNSE) is described. Part of the plan are, definition of sectors in industry (for Cd, Pb and Hg) for priority action, development of objectives and targets (2010) for reduction of Cd and Pb and action programs for emission reduction in the industrial sectors concerned. The sectors mentioned include most of the categories of annex II. An overview is given of measures taken since 2000, including measures with respect to products: lead in petrol and mercury in batteries and thermometers. In 2008 a PNSE II will</p>	<p><i>2006 IDR: n.e.p. (no reply)</i> <i>A program (PNSE) and measures are described for industrial sectors, except for chlor-alkali industry and waste incineration, and for products, lead in petrol and mercury in batteries and thermometers. The current program deals also with mercury, but is focussed on cadmium and lead. PNSE II, to be completed in 2008, will focus on mercury.</i> <i>Chlor-alkali industry and waste incineration are dealt</i></p>	<p>In compliance</p>

Party	Response to Q. 32	Comments	Conclusion
	<p>be developed for the years 2009-2012, in particular for HG reduction. In addition regional plans (PRSE) are being prepared, to complete the actions provided for at a national level.</p>	<p><i>with under Q.34.</i></p>	
<p>Germany</p>	<p>“Air pollution control is ruled by the 1974 (last update October 2007) Federal Immission Control Act. A basic feature of this act is the precautionary principle, which means in practical terms that all sources (new and existing) must prevent and control emissions according to the state of the art. Since the mid-1970s, a system of ordinances and technical instructions on emission prevention and control has come into effect. The establishment and operation of installations particularly liable to cause harmful effects on the environment are subject to licensing. These plants are listed in the 4th Ordinance (1985). Detailed provisions relating to the licensing procedure are laid down in the 9th ordinance (1977). The limit values as laid down in the Technical Instructions on Air Quality Control are more stringent than demanded by the HM-protocol – see the table provided under question 34.</p> <p>Of equal importance as direct regulatory measures to control air emissions is an efficient use of energy. Plants subject to licensing have to use energy in an efficient way. The concept of heat recovery was enlarged. The measures initiated to this end are also listed in the Federal Government’s National Climate Protection Programme Oct. 2000, updated in August 2005”</p>	<p><i>2006 IDR: c. (Measures under annex VI, para. 5 not yet mandatory).</i></p> <p><i>The same answer as to the equivalent question in the 2006 Questionnaire. Describes strategies relating to stationary sources, but no strategies or measures mentioned for products. Lead in petrol is dealt with under Q.37.</i></p>	<p>In compliance</p>
<p>Hungary</p>	<p>“Hungary ratified the Heavy Metal Protocol on 19th April, 2004. Hungary prepared a detailed emission inventory of cadmium, lead and mercury for stationary source categories and assessed emissions of heavy metals generated by traffic. For the ratification process the Ministry of Environment and Water elaborated a strategy program which listed all measures necessary to meet the requirements of the Protocol.</p> <p>According to the emission inventory cadmium emissions in 1985 were 6,97 tons and were reduced to 1,4 tons by 2006; mercury emissions in 1985 were 8,34 tons and were reduced to 3,16 tons by 2006; and the most remarkable reduction was achieved in lead emissions because in 1990 lead emission was 633 tons and was reduced to 36,8 tons by 2006.</p> <p>Measures taken to reduce emissions of the heavy metals listed in Annex I from their 1985 and 1990 reference years were as follows:</p> <ul style="list-style-type: none"> •Legal provisions in emission control as in the case of large combustion plants and waste incinerators, furthermore in Ministerial Decree 14/2001.(V.9.) KöM-EüM-FVM which stipulated ambient air quality limit values in general and emission limit values for all stationary sources. Enforcement of legal requirements by the environmental authorities contributed to large extent to the results achieved. •Technical development measures performed by the stakeholders operating stationary sources. These measures comprised partly changes in primary technologies and partly the establishment of end-of-pipe 	<p><i>2006 IDR: c.</i></p> <p><i>Provides an update of the answer to the equivalent question in the 2006 Questionnaire. Describes strategies and measures relating to stationary sources and traffic. New information and reference to legislation, is given with respect to control measures for stationary sources. Lead in petrol is dealt with under Q.37 and Hg in batteries in Q.38.</i></p> <p><i>What is meant with two reference years for reduction of national emissions is unclear.</i></p>	<p>In compliance</p>

Party	Response to Q. 32	Comments	Conclusion
	technologies (scrubbers, filters etc.). Proper, strict operational requirements contributed to emission reductions, too.”.		
Latvia	No answer	<i>2006 IDR: n.e.p. (no reply)</i>	No evaluation possible
Liechtenstein	No answer	<i>2006 IDR: n.e.p. (no reply)</i>	No evaluation possible
Lithuania	<p>“General National strategies and programmes are described in the answer to question 39. The other important legal acts for implementation of the obligations under the Protocol are: - National Programme of Management of a Hazardous Waste for 2006 – 2008 years (adopted by Decision No. 19 of 11 January 2006 of the Government of Lithuania) set measures on the improvement of hazardous waste management system; - Law on Environment Protection (1992, last amended in 2005) lays down the basic principles of environmental protection; - Law on Ambient air protection (1999) establishes the fundamental requirements for ambient air quality assessment and management, sets out the principles for ambient air pollution regulation from mobile and stationary sources; - Law on Waste Management (adopted in 1998, last amended in 2005) and Waste Management Requirements (adopted in 1999 by the Minister of Environment, last amended in 2007) sets out general requirements for waste management; - Regulations for the Issue, Renewal and Cancellation of Permits on Integrated Pollution Prevention and Control (IPPC)(adopted by the Minister of Environment in 2002, with amendments); - Emission Standards from Large Combustion Installations (adopted in 2003 by the Minister of Environment, amended in 2003); - Environmental Protection Requirements for Waste Incineration (adopted in 2002 by the Minister of Environment, last amended in 2006); - Target Values of Arsenic, Cadmium, Mercury, Nickel and Polycyclic Aromatic Hydrocarbons in Ambient Air (adopted by the Minister of Environment and the Minister of Health in 2006); - Regulation on Assessment of Ambient Air Pollution by Arsenic, Cadmium, Mercury, Nickel and Polycyclic Aromatic Hydrocarbons (adopted in 2006 by the Minister of Environment); - Obligatory Requirements for Quality of Oil Products, Biofuels and Liquid Fuels (adopted in 2006 by the Minister of Environment, Minister of Economy and Minister of Transport); - Hygiene Standard 36: 2003 „Prohibited and Restricted Substances“ (adopted in 2002 by the Minister of Health, last amended in 2007) prohibits and restricts to place on market or use products and substances containing Cadmium, Mercury and Lead.”.</p>	<p><i>2006 IDR: n.e.p. (no reply)</i> <i>Refers to Q.39 for the general strategies and policies. Reference is further made to specific legislation relevant for HM emissions from stationary sources, including waste management, and for products containing HM.</i></p>	In compliance
Luxembourg	No answer	<i>2006 IDR: n.e.p. (no reply)</i>	No evaluation possible
Monaco	No answer	<i>2006 IDR: n.e.p. (no reply)</i>	No evaluation possible

Party	Response to Q. 32	Comments	Conclusion
<p>Netherlands</p>	<p>Cadmium, mercury and lead are considered as priority substances in the Netherlands. This implies that the environmental policy is aimed at reducing emissions of these metals to zero. This is done by banning products and processes that are sources of emissions, and by enforcing strict emission limits on production processes where the use or emission of cadmium, mercury and lead cannot be avoided. Before the '90s, policy focused on risk management, maximum levels, limiting introduction of new substances to those with negligible risk, emission reduction and substitution. After 1990 focus was given to integrated substance policy and quicker risk assessment. Measures are embedded in the Environmental Management Act (1993) and the Hazardous Substances Act (1985). Waste from end of life vehicles is regulated under a decree on management of end of life vehicles (2002, amended 2003), that implements directive 2000/53/EC and decision 2002/525/EC. The Netherlands pursues active engagement in international agreements. Waste electric and electronic equipment is regulated under the Waste Electrical and Electronic Equipment (WEEE) Decree (2004), implementing the Directives 2000/95/EC on the restriction of the use of certain hazardous substances in electrical and electronic equipment and 2002/96/EC on WEEE, in which producers are responsible for the collection and treatment of WEEE and are prohibited to bring on the market products containing, among others mercury, cadmium and lead. The policy for chemical substances, including heavy metals, develops along four lines: •Increase of knowledge on risks and hazards of chemical substances; •communication about the risks and hazards of chemical substances (knowledge sharing), so that everyone can take his/her responsibilities; •prioritise chemical substances that needs (first) attention; •companies need to take their responsibilities by taking measures to avoid risks and hazards (risk management and chain responsibility). This means ensuring that potential risks and hazards associated with the use of substances in each stage of their life cycle are sufficiently controlled so as to remove, or to reduce to a negligible level, any harmful effects on man or environment. In addition, safety and health hazards in the working environment must be minimised. The new policy provides concrete input for the development of EU instruments for the new European chemicals policy, such as the European Registration, Evaluation, Authorisation and Restriction of Chemicals Regulation (REACH Regulation, 2006/1907/EC). Realisation and inspection shall be regulated in the Environmental Management Act. REACH includes also a ban on the most alarming chemical substances and an authorisation for critical production and use. See, also Q18. <u>Cadmium</u>: The Cadmium Decree (1999) aims to reduce the dispersion of cadmium in the environment. The Decree implements the European Cadmium Decree (91/338/EC, July 1991) By the Decree the use of cadmium as a pigment, dye, stabiliser in a product and the use as surface plating is in principle prohibited. Also the decree prohibits production, import, trading</p>	<p><i>2006 IDR: c.</i> <i>For the greater part the same answer as to the equivalent question in the 2006 Questionnaire. However, describes this time only strategies for products.</i> <i>BAT and ELVs are dealt with under Q.33 and Q.34.</i></p>	<p>In compliance</p>

Party	Response to Q. 32	Comments	Conclusion
	<p>and the keeping in stock of particular products containing cadmium. The decree sets specific exemptions for the general prohibitions. Deposition of cadmium in the Netherlands decreased with 50% over a 12 years period. Since 2000 the deposition of cadmium in the Netherlands in quantities of several tenths of grams per hectare per year has been estimated, which is below the target value of 1 g/hectare per year. <u>Mercury</u>: The Decree on products containing mercury (1998) prohibits from 1st January 2000 the import and production of mercury containing products, including batteries. Since January 2003 also the use of most mercury containing products is prohibited, with a few exceptions such as fluorescent lamps (max. 20 mg Hg) or photographic films (max 0,3 mg Hg/kg product) and some specific professional products (non-consumer products). This Decree, which concerns mostly measuring instruments, electro technical products and lighting, led to a 40% reduction of the use of mercury in the Netherlands. <u>Lead</u>: The sale of leaded petrol with more than 0.005 g/l is legally prohibited since 2000 by Directive 98/70/EC, relating to the quality of petrol and diesel fuels and Directive 2003/17/EC amending Directive 98/70/EC. The Directives have been implemented in the Dutch Decree on quality requirements for fuel road traffic (1999). The sale of leaded petrol effectively ceased already in 1997 as a result of fiscal incentives. Due to the reduction of emission of lead by traffic and transport, the concentration of lead in the air has been reduced with 85% since 1990. With this the Netherlands is compliant to the EC limit value for lead of 500 ng/m₃ average per year, which is to be revised in the new EC Directive on Air Quality.”.</p>		
<p>Norway</p>	<p>“The Pollution Control Act of 1981 and the Product Control Act of 1976 constitute the basic elements in Norway’s policy to control and reduce pollution, including emissions of sulphur. The Pollution Control Act is a typical enabling act, meaning that the details (ELVs and other specific requirements) are outlined in individual discharge permits or regulations issued by the pollution control authorities. The main rule of the act is that pollution is forbidden, unless it is specifically permitted by law, regulations or individual permits. Regulations pursuant to the Pollution Control Act relevant to the implementation of the obligations under the Protocol are laid down by the Regulations relating to Pollution Control (the Pollution Regulation) of 2004. Regulations pursuant to the Product Control Act relevant to the implementation of the obligations under the Protocol are laid down by the Regulations relating to restrictions on the manufacture, import, export, sale and use of chemicals and other products hazardous to health and the environment (Product Regulations) of 2007. Emissions from vehicles are regulated by special laws and regulations. As a party to the Agreement on The European Economic Area (EEA) between the European Community, the EU member states and three EFTA member states, Norway has implemented in national legislation the provisions of all EU legislative acts regulating emissions from specific sources and products that are</p>	<p><i>2006 IDR: c.</i> <i>Describes general strategies and policies, the same as presented for POPs. Further legislation is mentioned for control of emissions and product control in general, relevant for implementation of the Protocol. States, like was done for POPs, that total emissions shall be significantly reduced before 2010 and that a plan how to achieve this, has been developed. In addition calculation and reporting of HM emissions is mentioned.</i></p>	<p>In compliance</p>

Party	Response to Q. 32	Comments	Conclusion
	<p>relevant to the implementation of the obligations under the Protocol. The heavy metals listed in Annex I, are nationally prioritised for action through national policy targets. The targets set are that the total emissions shall be significantly reduced before 2010, and a plan on how to achieve this has been developed. The basis for future reporting on emissions of the three heavy metals is established. Total annual emissions of Pb, Cd and Hg to air have been calculated for the period 1990 to 1999 and a procedure for future annual update of the emission inventory is established and annual emissions are reported nationally and internationally. The calculations are based on information from the Norwegian Pollution Release and Transfer Register (PRTR), a new survey on emissions of heavy metals from metallurgical industry (performed in 2000 and 2001), use of emission factors and modelling.”.</p>		
Republic of Moldova	No answer	<i>2006 IDR: n.e.p. (no reply)</i>	No evaluation possible
Romania	<p>“As a new EU Member State, Romania accepts the entire <i>acquis communautaire</i> in the field of environment. The 1998 Protocol on Heavy Metals was ratified through the Law 271/2003. In 2004 were approved the National Strategy for Atmosphere Protection (through Governmental Decision no. 731/2004) and National Action Plan on Atmosphere Protection (through Governmental Decision no. 738/2004). The main objectives of the National Strategy for Atmosphere Protection are: •to maintain of ambient air in the zones that comply with the limits set by the legal norms for quality indicators; •to improve the ambient air quality in the zones that do not comply with the limits set by the legal norms for quality indicators; •to adopt the necessary measures to minimise and finally eliminate negative environmental and/or transboundary impacts; •to fulfil all the obligations assumed by international agreements and treaties to which Romania is a party.”.</p>	<p><i>2006 IDR: n.e.p. (no reply)</i> <i>Describes the main objectives of a National strategy and a National action plan on atmospheric protection (2004), which include necessary measures to minimise environmental and/or transboundary impacts. No specific policies or measures with respect to HM mentioned. Measures for BAT and ELVs and for lead in petrol are dealt with under Q.33, Q.34 and Q.37.</i></p>	In compliance

Party	Response to Q. 32	Comments	Conclusion
Slovakia	<p>“Ministry of the Environment of Slovakia worked out the National Environment Policy in 1993. The National Environment Policy sets short-term, medium-term and long-term objectives for environment policy of Slovakia. There are set as well requirements for air protection – reduction of emissions of air pollutants (SO₂, NO_x, CO, PM), volatile organic compounds, persistent organic pollutants, heavy metals, CO₂. The requirements for achievement of objectives are introduced in the first National environment action plan (NEAP I) and in the second National environment action plan (NEAP II). The objectives of the National Environment Policy are reached through several pieces of Slovak legislation: The Act No. 478/2002 (article 18, paragraph 3) on air protection and the Act No. 245/2003 on integrated pollution prevention and control (IPPC) set requirements for the application of BAT. The Ministerial Decree No. 706/2002 sets emission limit values for HM emissions. The Ministerial Decree No. 53/2004 sets requirements for lead content of petrol intended for on-road vehicles. The Act No. 223/2001 on waste sets requirements for mercury content in batteries. “.</p>	<p><i>2006 IDR: c. Refers to the National Environmental Policy (1993) and two National Environmental Action Plans. Further a list is given of national legislation for stationary sources and for products.</i></p>	<p>In compliance</p>
Slovenia	<p>“Fundamental Slovenian strategic document in the field of environmental pollution is the National Environment Action Plan (NEAP) 2005-20012 (OJ RS, No. 2/2006). Based on NEAP, policies for specific issues are developed. For heavy metals the following three policy documents are relevant: •National Program for phasing out lead in gasoline in Slovenia (September 1998) •Operative programme on pollution reduction of the waters from mercury emissions from diffuse sources in the Republic of Slovenia (February 2004) •Operative programme on reduction of pollution of surface water with priority and dangerous substances (May 2004) The national strategy (NEAP 2005-2012) and specific policies are focused to use economically feasible, environmentally sound management techniques, including best environmental practices, with respect to all aspects of the use, production, release, processing, distribution, handling and transport. They also include management programmes to reduce emissions of heavy metals pollutants.”.</p>	<p><i>2006 IDR: c. (Based on reference to measures regarding stationary sources, lead in petrol and Hg and Cd in batteries) Reference is made to the National environmental Action Plan, which formulate basic strategies and is the basis for three policy documents. Only one of these, on lead in petrol (1998) is relevant, the others deal with water pollution. No information on policies for stationary sources, or Hg in batteries. However, these are dealt with under Q.33, Q.34 and Q38.</i></p>	<p>In compliance</p>
Sweden	<p>“Industrial installations are subject to individual permitting in accordance with the Environmental Code (1998:808) which requires the use of BAT. A national environmental goal requires mercury, cadmium and lead to be phased out as far as possible. The Swedish strategy to achieve a ”mercury free environment” consists of measures to reduce the input of mercury into society by imposing a ban on it in different products and processes, collect mercury from society’s so-called ”hidden mercury store” and to effect a terminal disposal of mercury. Mercury should not be recycled but should be disposed of terminally in a safe and environmentally sound way. Additionally substantive actions are taken to restrict emissions of mercury to air, land and water. Guiding principles for the policy on mercury and for hazardous substances in general are the principles of precaution and substitution, which are also legal requirements according to the</p>	<p><i>2006 IDR: c. Refers to the Environmental Code, a national environmental goal to phase out mercury, cadmium and lead as far as possible. Describes a strategy for a ‘mercury free environment’. These policies and strategies include both stationary sources and products</i></p>	<p>In compliance</p>

Party	Response to Q. 32	Comments	Conclusion
	<p>Swedish Environmental Code. The Government and Parliament decided in the early 1990's to reduce the use of mercury in products, mainly by regulatory means, but also supported by voluntary agreements, and with the ultimate aim of a total phase-out. The official policy on mercury has led to an awareness and acceptance in Swedish industry and society to avoid mercury, and between 1992 and 2003 approximately 95 % of the sold amounts of mercury in products were phased out."</p>		
<p>Switzerland</p>	<p>"Switzerland edicted the 1986 Ordinance on Air Pollution Control with emission limit values for several metals, including cadmium, mercury and lead, as well as emission limitations for certain industrial activities. The content of lead in gasoline, as well as of cadmium and mercury in battery and accumulators are strictly regulated (lead free gasoline since 2000). Emission limitations for new and existing sources were taken since the entry into force and the continuous application of the Swiss 1986 Ordinance on Air Pollution Control. It allowed to achieve significant reductions of cadmium, lead and mercury emissions compared to the reference year 1990."</p>	<p><i>2006 IDR: c. Describes strategies and measures for stationary sources and for products. Reference is made to relevant legislation.</i></p>	<p>In compliance</p>
<p>United Kingdom</p>	<p>"The UK ratified the Heavy Metals Protocol in 2005. The limit values in the Protocol are in line with UK Best Available Technique (BAT) and Best Available Technique not entailing excessive cost (BATNEEC) requirements. Best Available Technique (BAT) is applied in the UK for all major stationary source categories in the Protocol, under Pollution Prevention and Control and Local Air Pollution and Control regimes. The UK has already met the main requirement of the Protocol to reduce annual emissions to air of cadmium, lead and mercury to below 1990 levels. UK emissions of cadmium to air for 1990 were roughly 21 tonnes, in 2002 emissions were 4.5 tonnes. For lead, 3242 tonnes were emitted in 1990 and by 2002 emissions had fallen to around 162 tonnes, a 95 per cent reduction. Lastly, mercury emissions to air in 1990 were 42 tonnes and in 2002 had been reduced to around 8 tonnes. The other requirements of the Protocol are met by the Pollution Prevention and Control and Local Air Pollution Control regimes. In 2007, the UK implemented the 4th EU Air Quality Directive (04/107/EC) to control and reduce emissions of other heavy metals, including arsenic and nickel. The Directive was transposed into UK law by the Air Quality Standards Regulations 2007. The Air Quality Strategy for England, Scotland, Wales and Northern Ireland was also published in July 2007, following a review of the 2000 Air Quality Strategy. The Strategy sets objectives for eleven main air pollutants to protect public health, vegetation and ecosystems. Performance against these objectives is monitored in populated or problem areas: urban conurbations, industrial sites and motorways. Lead and polycyclic aromatic hydrocarbons (PAHs) are two of the eleven pollutants covered by the strategy. The UK also carries out an extensive research programme on heavy metals. The UK reports annually on UK emissions of 10 heavy metals (...). "</p>	<p><i>2006 IDR: c. (Measures under annex VI, para. 5 not yet mandatory). Provides an update of the answer to the equivalent question in the 2006 Questionnaire. Describes strategies, policies, programmes and measures relating to stationary sources. New information and reference to legislation (2007), is given with respect to air quality standards for other HM. Lead in petrol measures are dealt with in Q.37.</i></p>	<p>In compliance</p>

Party	Response to Q. 32	Comments	Conclusion
<p>United States</p>	<p>“The U.S. has a national program, under the Clean Air Act, that establishes emission standards for over 170 stationary source categories. These standards apply to “major” sources and some “area” sources. Major sources are those sources that emit 10 tons per year (tpy) or more of a single hazardous air pollutant (HAP) or 25 tpy or more of a mixture of HAPs. The HAPs are also known as “air toxics”. The “area” sources are the smaller sources, emitting less than 10/25 tpy of HAPs. The standards focus on reducing emissions of 188 HAPs, including cadmium, lead and mercury and compounds of these metals. The emission limit values required by the standards are generally established at levels that reflect the use of best available techniques, similar to those identified in Annex III, especially for major sources. The Act also gives EPA the authority to establish National Ambient Air Quality Standards (NAAQS) for various air pollutants. The EPA has established NAAQS for six pollutants, including fine particulate matter and lead. The States have the responsibility of developing plans to achieve reductions in emissions to achieve the NAAQS using a variety of measures. The NAAQS program has contributed to the reductions in heavy metals emissions in the U.S. In addition, many individual States have their own separate regulations to limit HM emissions. The lead NAAQS, which is 1.5 ug/m³ (as a maximum quarterly average), was established by EPA in 1978. However, this NAAQS is currently under review by the EPA. This review has included an assessment of the current health effects evidence that has been published in the Air Quality Criteria Document for Lead and a risk assessment for several case studies. The review of the NAAQS is proceeding on a court ordered schedule, with the notice of final rulemaking concerning any revisions to the NAAQS required to be signed by September 1, 2008. More information about the lead NAAQS and related documents are available at website [...]. Moreover, various product control measures have been implemented in the United States that contribute to reductions in HM emissions. For example, between 1980 to 1997 mercury use in products and processes decreased about 83 percent, due in large part to state and congressional limits placed on mercury use in batteries, EPA’s regulatory ban on mercury in paint, and closure of a number of chlor-alkali production facilities. Overall, the national programs, along with other actions, have achieved significant reductions in emission of heavy metals in the U.S.A. since the reference year. Mercury emissions have decreased by more than 45%, and lead and cadmium emissions have decreased by more than 50% since 1990. In addition, further reductions are expected over the coming years. With regard to mobile sources, EPA has a plan in place to achieve reductions in emissions of heavy metals.”.</p>	<p><i>2006 IDR: c.</i> <i>Describes strategies, policies and programmes or measures for stationary sources and for products. In addition reference is made to National Ambient Air Quality Standards (for lead and fine PM), as target for plans at State level to reduce emissions of HM.</i></p>	<p>In compliance</p>
<p>EC</p>	<p><u>The consequence of the competence being shared between the Community and the Member States is explained.. Further a detailed description of the Community Strategy Concerning Mercury (28.01.2005) is given (see attachment 2). No</u></p>	<p><i>2006 IDR: n.e.p. (no reply)</i> <i>Apparently a Community strategy for Hg fits in with the competence as shared by the Community and the</i></p>	<p>No evaluation possible</p>

Party	Response to Q. 32	Comments	Conclusion
	<u>specific reference to strategies for Cd or Pb.</u>	<i>Member States. It is not explained in what sense the situation differs for Cd and Pb with respect to the obligation to develop strategies, policies and programmes.</i>	