

STRATEGIES AND POLICIES OF PARTIES AND SIGNATORIES TO THE CONVENTION  
FOR THE ABATEMENT OF AIR POLLUTION

**2010 QUESTIONNAIRE FOR PRIORITY COMPLIANCE REVIEW**

**Answers GREECE**

**I. 1985 SULPHUR PROTOCOL<sup>1</sup>**

1. The question in this section refers to the following Parties: Austria, Belarus, Belgium, Bulgaria, Canada, the Czech Republic, Denmark, Estonia, Finland, France, Germany, Hungary, Italy, Liechtenstein, Lithuania, Luxembourg, the Netherlands, Norway, the Russian Federation, Slovakia, Sweden, Switzerland and Ukraine.
2. Question 1: With reference to article 6 of the Protocol, please provide details of your country's national programmes, policies and strategies that specifically address the reduction of sulphur emissions. If your country is a Party to the 1994 Sulphur Protocol<sup>2</sup> and/or the 1999 Gothenburg Protocol<sup>3</sup>, you may cross-refer to question 13 and/or 39.

**II. NITROGEN OXIDES PROTOCOL<sup>4</sup>**

3. The questions in this section are based on the reporting obligation of Parties in accordance with article 8 and enable Parties to provide information on the implementation of the obligations under articles 2, 4 and 7 of the Protocol.
4. They refer to the following Parties to the Protocol: Austria, Belarus, Belgium, Bulgaria, Canada, Cyprus, the Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Ireland, Italy, Liechtenstein, Lithuania, Luxembourg, the Netherlands, Norway, the Russian Federation, Slovakia, Slovenia, Spain, Sweden, Switzerland, Ukraine, the United Kingdom of Great Britain and Northern Ireland, the United States of America and the European Community.
5. Question 2: With reference to article 7, please provide up-to-date information on the national programmes, policies and strategies your country has developed to implement the

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<sup>1</sup> 1985 Helsinki Protocol on the Reduction of Sulphur Emissions or their Transboundary Fluxes by at least 30 per cent.

<sup>2</sup> 1994 Oslo Protocol on further Reduction of Sulphur Emissions.

<sup>3</sup> 1999 Gothenburg Protocol to abate Acidification, Eutrophication and Ground-level Ozone.

<sup>4</sup> 1988 Sofia Protocol concerning the Control of Emissions of Nitrogen Oxides or their Transboundary Fluxes.

obligations under the Protocol that serve as a means of controlling and reducing emissions of nitrogen oxides (NO<sub>x</sub>) or their transboundary fluxes. If your country is a Party to the Gothenburg Protocol, you may cross-refer to question 39.

**Reply:**

Please refer to pages 13-37 of the 2011 GR report concerning 1988 protocol.

6. Question 3: With reference to article 2, paragraph 2 (a), please specify the national NO<sub>x</sub> emission standards applied to major stationary sources and/or major source categories in your country, taking into consideration the technical annex to the Protocol. For the purpose of this question, “major stationary source” means any stationary source, the construction or substantial modification of which commenced after 14 February 1993 and which has a thermal input of at least 50 MW<sub>th</sub>. Please complete the table below.

**Reply:**

In Greece, Ministerial Decisions 29457/1511/2005 and 33437/1904/E103/2008 are in force, which implement the EC Directive 2001/80, concerning the emission limits for large combustion plants. Moreover, emission limit values follow the provisions set by BREFs (IPPC Directive).

Table 1: Question 3

Major stationary sources or major source category <sup>2/</sup> for NO <sub>x</sub>	National emission standards <sup>1/</sup>	National legislation and comments (e.g. BAT <sup>5</sup> applied)
<b>1. Public power, cogeneration and district heating plants:</b>		
(a) Boilers	<p>Solid fuels:  50 – 500 MWth:  500 - 600 mg/Nm<sup>3</sup>  &gt; 500 MWth:  500 - 600 mg/Nm<sup>3</sup></p> <p>600 mg/Nm<sup>3</sup>  (existing installations -  max operation 2000  h/y)  1200 mg/Nm<sup>3</sup>  (existing installations  &lt; 10% VOCs)</p> <p>Liquid fuels:  50 – 500 MWth:  450 - 500 mg/Nm<sup>3</sup>  &gt; 500 MWth:  450 - 500 mg/Nm<sup>3</sup></p> <p>Gas fuels:  NG: 200 mg/Nm<sup>3</sup>  Other gases:  50 – 500 MWth:  300 mg/Nm<sup>3</sup>  &gt; 500 MWth:  200 mg/Nm<sup>3</sup></p>	<p>Transposition of Dir.  2001/80/EC:  - Min. Decision  29457/1511/2005  - Min. Decision  33437/1904/E103/2008</p> <p>Dir. 96/61/EC,  2008/1/EC (IPPC Dir.)</p>
(b) Stationary combustion turbines and internal combustion engines	<p>NG: 50 mg/Nm<sup>3</sup>  Other gases: 120  mg/Nm<sup>3</sup>  Liquid: 120 mg/Nm<sup>3</sup></p>	<p>Min. Decision  29457/1511/2005  transposition of Dir.  2001/80/EC</p> <p>Dir. 96/61/EC,  2008/1/EC (IPPC Dir.)</p>

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<sup>5</sup> Best available technologies.

<b>2. Commercial, institutional and residential combustion plants:</b>	As above	Min. Decision 29457/1511/2005 transposition of Dir. 2001/80/EC  Dir. 96/61/EC, 2008/1/EC (IPPC Dir.)
(a) Commercial boilers		
(b) Domestic heaters		
<b>3. Industrial combustion plants and processes with combustion</b>	As above  Refineries: 200 – 450 mg/Nm <sup>3</sup>	Min. Decision 29457/1511/2005 transposition of Dir. 2001/80/EC  Dir. 96/61/EC, 2008/1/EC (IPPC Dir.)
(a) Boilers and process heaters (no direct contact between flue gas and products)		
(b) Processes (direct contact); (e.g. calcinations processes in rotary kilns; production of cement, lime, etc.; glass production; metallurgical operation; pulp production)		
<b>4. Non-combustion processes, e.g. nitric acid production</b>	According to BREFs	Dir. 96/61/EC, 2008/1/EC (IPPC Dir.)
<b>5. Extraction, processing and distribution of fossil fuels</b>		
<b>6. Waste treatment and disposal, e.g. incineration of municipal and industrial waste</b>	800 mg/m <sup>3</sup> (existing) 500 mg/m <sup>3</sup> (new) Daily mean values	Dir. 2000/76/EC

1/ Specify the units and statistical treatment.

2/ For the definition of major source category see article 1, paragraph 10.

7. Question 4: With reference to [article 2, paragraph 2 \(c\)](#), please provide details of the pollution control measures for NO<sub>x</sub> emissions introduced in your country for major stationary sources with a thermal input of at least 100 MW<sub>th</sub>, the construction of which commenced on or before 14 February 1993, taking into consideration the [technical annex](#) to the Protocol. Please complete the table below.

**Reply:**

Please refer to Question 3. Moreover:

- Low NO<sub>x</sub> burners are applied in some stationary sources.
- Some older facilities operate with specially-designed boilers for low NO<sub>x</sub> emissions.

**Table 2: Question 4**

Major stationary source	Pollution control measures applied	Comments (national legislation, relevant plant characteristics e.g. age, utilization rate)
<b>1. Public power, cogeneration and district heating plants:</b>		
(a) Boilers		
(b) Stationary combustion turbines and internal combustion engines		
<b>2. Commercial, institutional and residential combustion plants:</b>		
(a) Commercial boilers		
(b) Domestic heaters		
<b>3. Industrial combustion plants and processes with combustion</b>		
(a) Boilers and process heaters (no direct contact between flue gas and products)		
(b) Processes (direct contact); (e.g. calcinations processes in rotary kilns; production of cement, lime, etc.; glass production; metallurgical operation; pulp production)		
<b>4. Non-combustion processes, e.g. nitric acid production</b>		
<b>5. Extraction, processing and distribution of fossil fuels</b>		
<b>6. Waste treatment and disposal, e.g. incineration of municipal and industrial waste</b>		

8. Question 5: With reference to article 2, paragraph 2 (b), please specify the national NO<sub>x</sub> emission standards applied to newly registered mobile sources in all major source categories, taking into consideration the technical annex to the Protocol and the relevant decisions taken within the framework of the Inland Transport Committee of the United Nations Economic Commission for Europe (UNECE). If your country is a Party to the Gothenburg Protocol, you may cross-refer to questions 51–56. Please complete the table below.

**Reply:**

Ministerial Decisions 4179/346/2000 and 78106/3443/01/2002 (transposition of Euro IV, Directives 98/69/EC and 2002/80/EC) are in force. Since 1/1/2009, Regulation 715/2007/EC is also in force, regarding type approval of motor vehicles with respect to emissions from light passenger and commercial vehicles (Euro V and Euro VI) and on access to vehicle repair and maintenance information.

**Table 3: Question 5**

Mobile source category	NO <sub>x</sub> emission standards (unit: g/km or g/kWh)		Date	National legislation
	Petrol	Diesel		
1. Road vehicles (a) Passenger cars: (b) Light commercial vehicles Class I Class II Class III (c) Heavy-duty vehicles (HDV) (d) Motorcycles and mopeds (e) Tractors (agricultural and forestry)				
2. Non-road engine applications: agricultural, mobile industrial and construction machinery $\leq 18$ kW $19 \leq \text{kW} \leq 37$ $37 \leq \text{kW} \leq 75$ $75 \leq \text{kW} \leq 130$ $130 \leq \text{kW} \leq 560$				
3. Other mobile sources (a) Rail transport Self-propelled rail cars Locomotives $130 < \text{kW} < 560$ $> 560$ kW $> 2000$ kW and $> 5$ litres/cylinder (b) Ships and other marine craft Recreational craft Inland shipping (c) Aircraft				

9. Question 6: With reference to article 4, has your country made unleaded fuel sufficiently available, in particular cases as a minimum along main international transit routes, to facilitate the circulation of vehicles equipped with catalytic converters?

Reply:

Yes

No

You may provide further details. However, if your country is a Party to the Heavy Metals Protocol, you should provide further details under question 37.

### III. PROTOCOL ON VOLATILE ORGANIC COMPOUNDS<sup>6</sup>

10. The questions in this section are based on the reporting obligation of Parties in accordance with article 8 and enable Parties to provide information on the implementation of the obligations under articles 2.3(a)(i–iii), 2.3(b) and 7 of the Protocol on Volatile Organic Compounds (VOCs).

11. They refer to the following Parties to the Protocol: Austria, Belgium, Bulgaria, the Czech Republic, Denmark, Estonia, Finland, France, Germany, Hungary, Italy, Liechtenstein, Lithuania, Luxembourg, Monaco, the Netherlands, Norway, Slovakia, Spain, Sweden, Switzerland and the United Kingdom.

12. Question 7: With reference to article 7, please provide up-to-date information on the national programmes, policies and strategies your country has developed to implement the obligations under the Protocol that serve as a means of controlling and reducing emissions of VOCs or their transboundary fluxes. If your country is a Party to the Gothenburg Protocol, you may cross-refer to question 39.

13. Question 8: With reference to article 2, paragraph 3 (a) (i), please specify the national or international emission standards applied in your country to control and reduce VOCs emissions from stationary sources, the construction or substantial modification of which commenced after 29 September 1999, taking into consideration annex II to the Protocol. Please complete the table below.

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<sup>6</sup> 1991 Geneva Protocol concerning the Control of Emissions of Volatile Organic Compounds or their Transboundary Fluxes.

**Table 4: Question 8**

Stationary source	Emission standards for VOCs <sup>1/</sup>	National legislation
1. Use of solvents		
2. Petroleum industry, including petroleum product handling		
3. Organic chemical industry		
4. Small-scale combustion sources (e.g. domestic heating and small industrial boilers)		
5. Food industry		
6. Iron and steel industry		
7. Handling and treatment of waste		
8. Agriculture		

1/ Specify the units and statistical treatment.

14. Question 9<sup>7</sup>: With reference to article 2, paragraph 3 (b) (i), please indicate BAT that are economically feasible and applied in your country to control and reduce VOCs emissions from the stationary sources in major source categories, the construction of which commenced on or before 29 September 1999, taking into consideration annex II to the Protocol. Please complete the table below.

<sup>7</sup> The question refers only to Parties in those areas in which national or international tropospheric ozone standards are exceeded or where transboundary fluxes originate or are expected to originate.



**Table 5: Question 9**

<b>Stationary source in major source categories<sup>1/</sup></b>	<b>BAT applied</b>	<b>Source of BAT (provide reference of e.g. national legislation, guidance, documentation)</b>
1. Use of solvents		
2. Petroleum industry, including petroleum product handling		
3. Organic chemical industry		
4. Small-scale combustion sources (e.g. domestic heating and small industrial boilers)		
5. Food industry		
6. Iron and steel industry		
7. Handling and treatment of waste		
8. Agriculture		

1/ For the definition of major source category see article 1, paragraph 10.

15. Question 10<sup>8</sup>: With reference to [article 2, paragraph 3 \(b\)\(ii\)](#), please indicate the techniques applied in your country to reduce VOCs emissions from petrol distribution and motor vehicle refuelling operations and to reduce the volatility of petrol, taking into consideration [annex II \(IV.B, paras. 39–44\)](#) and [annex III \(IV, paras. 27–34\)](#) to the Protocol.

16. Question 11: With reference to [article 2, paragraph 3 \(a\)\(ii\)](#), please provide details of the national or international measures applied to products containing solvents, taking into consideration [annex II.V](#) to the Protocol. Please indicate whether there is labelling of products specifying their VOCs content.

17. Question 12: With reference to [article 2, paragraph 3 \(a\)\(iii\)](#), please specify the national or international emission standards applied in your country to newly registered mobile sources, taking into consideration [annex III](#) to the Protocol. Please complete the table below. If your country is a Party to the Gothenburg Protocol, you may cross-refer to questions 51–56.

<sup>8</sup> The question refers only to Parties in those areas in which national or international tropospheric ozone standards are exceeded or where transboundary fluxes originate or are expected to originate.

**Table 6: Question 12**

Mobile source	Emission standards for VOCs (g/km) or (g/kWh)		National legislation
	Petrol	Diesel	
1. Passenger cars and light commercial vehicles			
2. Trucks and buses			
3. Motorcycles and mopeds			
4. Off-road vehicles, machines and locomotives			
5. Other sources, e.g. ships (pleasure craft)			

#### IV. THE 1994 SULPHUR PROTOCOL

18. The questions in this section are based on the reporting obligation of Parties in accordance with [article 5](#), paragraph 1 (a) and (c), and enable Parties to provide information on the implementation of the obligations under articles 2.5 and 4.1 of the Protocol. By virtue of article 2, paragraph 5, questions 15 and 16 do not apply to Parties subject to the United States/Canada Air Quality Agreement of 1998.

19. They refer to the following Parties to the Protocol: Austria, Belgium, Bulgaria, Canada, Croatia, Cyprus, the Czech Republic, Denmark, Finland, France, Germany, Greece, Hungary, Ireland, Italy, Liechtenstein, Luxembourg, Monaco, the Netherlands, Norway, Slovakia, Slovenia, Spain, Sweden, Switzerland, the United Kingdom and the European Community.

20. Question 13: With reference to [article 4, paragraph 1\(a\)](#), please provide details of the national strategies, policies and programmes your country has adopted to implement obligations under article 2 of the Protocol. If your country is a Party to the Gothenburg Protocol, you may cross-refer to question 39.

#### **Reply:**

Greece, according to Directive 2001/81/EC (on national emission ceilings for certain atmospheric pollutants) and Ministerial Decision 29459/1510/2005, has drawn and implemented a national programme for the progressive reduction of SO<sub>x</sub> national emissions (Ministerial

Decision 38030/2127/E103/2008), with the aim of complying with the national emission ceilings set in Annex I of the Directive 2001/81/EC.

According to historical data and relative projections (Annex A of the Ministerial Decision 38030/2127/E103/2008), Greece will be able to comply with the 2010 emission ceiling value. The nationwide use of heavy fuel of low sulphur content (1 %), as well as the operation of desulphurization units in three lignite-powered electricity production plants, are sufficient measures for compliance. Moreover, a further emissions decrease is expected due to the gradual decommissioning of old inefficient and more pollutant thermal power units and the commissioning of new power units that follows BAT and the new IED. Projections for 2010 resulted to SO<sub>x</sub> emission of 408 kt.

21. Question 14: With reference to article 2, paragraph 4, please provide details of how your country is making use of the most effective measures, appropriate to your country's particular circumstances, for reducing sulphur emissions for new and existing sources. This could include measures to:

- (a) Increase energy efficiency;
- (b) Increase the use of renewable energy;
- (c) Reduce the sulphur content of particular fuels and to encourage the use of fuel with low sulphur content, including the combined use of high-sulphur with low-sulphur or sulphur-free fuel;
- (d) Apply BAT not entailing excessive costs, using the guidance in annex IV.

**Reply:**

Please refer to the reply of question 13.

22. Question 15: With reference to article 2, paragraph 5 (a), and annex V, please provide details of the emission limit values applied in your country to all major stationary combustion sources, the construction or substantial modification of which was authorized after 31 December 1995. If your country is a Party to the Gothenburg Protocol, you may cross-refer to questions 40 and 41. Please complete the table below.

**Reply:**

In Greece, Ministerial Decisions 29457/1511/2005 and 33437/1904/E103/2008 are in force, which implement the EC Directive 2001/80, concerning the emission limits for large combustion plants. Moreover, emission limit values follow the provisions set by BREFs (IPPC Directive).

Table 7: Question 15

Major stationary combustion source	Oxygen (O <sub>2</sub> ) % in flue gas	Emission limit value (mg SO <sub>2</sub> /Nm <sup>3</sup> )	Desulphurization rate indigenous fuels (%)	National legislation	Comments
<b>1. Solid fuels</b>				Min. Decision 29457/1511/2005 transposition of Dir. 2001/80/EC	
(a) 50-100 MW <sub>th</sub>	6	Up to 2000			
(b) 100-500 MW <sub>th</sub> <sup>1/</sup>	6	400-2000			
(c) >500 MW <sub>th</sub>	6	400			
<b>2. Liquid fuels</b>				Min. Decision 29457/1511/2005 transposition of Dir. 2001/80/EC	
(a) 50-300 MW <sub>th</sub>	3	1700			
(b) 300-500 MW <sub>th</sub>	3	400-1700			
(c) >500 MW <sub>th</sub>	3	400			
<b>3. Gaseous fuels</b>			n.a.	Min. Decision 29457/1511/2005 transposition of Dir. 2001/80/EC	
(a) Gaseous fuels in general	3	35			
(b) Liquified gas	3	5			
(c) Low calorific gases from gasification of refinery residues, coke oven gas, blast furnace gas	3	800		Min. Decision 29457/1511/2005 transposition of Dir. 2001/80/EC	
		Refineries FO/REF-Gas: 1200 - 1700		Dir. 96/61/EC, 2008/1/EC (IPPC Dir.)	

1/ If you apply, as an alternative, a desulphurisation rate, the category should be split up into 100–167 and 167–500 MW<sub>th</sub>.

23. Question 16: With reference to [article 2, paragraph 5 \(b\)](#), and [annex V](#), please provide details of the emission limit values applied in your country to major stationary combustion sources, the construction of which was authorized on or before 31 December 1995. If other emission limitations or other appropriate provisions are applied, please describe these, taking due account of the conditions for such alternatives as specified in article 2, paragraph 5 (b). If your country is a Party to the Gothenburg Protocol, you may cross-refer to question 41. Please complete the table below.

**Reply:**

Please refer to [Question 15](#).

**Table 8: Question 16**

Major stationary combustion source relevant age of plant	Oxygen (O <sub>2</sub> ) in flue gas (%)	Emission limit values (mg SO <sub>2</sub> /Nm <sup>3</sup> )	Desulphurization rate indigenous fuels (%)	Alternative emission limitations (where appropriate)	National legislation	Comments
1. <b>Solid fuels</b> (a) 50-100 MW <sub>th</sub> (b) 100-500 MW <sub>th</sub> (c) >500 MW <sub>th</sub>						
2. <b>Liquid fuels</b> (a) 50-300 MW <sub>th</sub> (b) 300-500 MW <sub>th</sub> (c) >500 MW <sub>th</sub>						
3. <b>Gaseous fuels</b> (a) Gaseous fuels in general (b) Liquified gas (c) Low calorific gases from gasification of refinery residues, coke oven gas, blast			n.a.			

furnace gas					
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24. Question 17: With reference to article 2, paragraph 5 (c), and annex V, please provide details of the national standards for the sulphur content of gas oil applied in your country. Please complete the table below.

**Reply:**

The national standards for sulphur content of gas oil are:

- Petrol and diesel (for transportation use) : 10 ppm
- Heavy fuel oil : up to 1 %
- Shipping : 1.5 %
- Diesel (for non-transportation use) : 0.1 %

**Table 9: Question 17**

Type	Sulphur content (% or ppm)	National legislation
1. Diesel for on-road vehicles		
2. Other types (e.g. diesel for off-road vehicles gas oil for inland navigation, heating, etc.)		

**V. PROTOCOL ON PERSISTENT ORGANIC POLLUTANTS**

25. The questions in this section are based on the reporting obligation of Parties in accordance with article 9, paragraphs 1 (a) and 2, and enable Parties to provide information on the implementation of the obligations under articles 3.1 (a), 3.1 b(i), 3.1 b(iii), 3.1 (c), 3.3, 3.5(b)(i), 3.5(b)(ii), 3.5 (b)(v), 3.8 and 7.1 of the 1998 Protocol on Persistent Organic Pollutants (POPs). Questions 28 and 29 are not yet mandatory. They are designed to enable Parties to provide information on progress made towards the implementation of articles 3.5 (b)(iii) and 3.5 (b)(iv) concerning obligations that will become effective in 2011.

26. They refer to the following Parties to the Protocol: Austria, Belgium, Bulgaria, Canada, Croatia, Cyprus, the Czech Republic, Denmark, Estonia, Finland, France, Germany, Hungary, Iceland, Italy, Latvia, Liechtenstein, Lithuania, Luxembourg, the Netherlands, Norway, Republic of Moldova, Romania, Slovakia, Slovenia, Sweden, Switzerland, the United Kingdom and the European Community.

27. Question 18: With reference to article 7, paragraph 1, please provide details of the national strategies, policies and programmes your country has developed to discharge its obligations under the Protocol.

28. Question 19: With reference to article 3, paragraph 1 (a), please provide details of the measures taken by your country to eliminate the production and use of substances listed in annex I to the Protocol. Please complete the table below.

**Table 10: Question 19**

Substance	Elimination of	Measures taken (e.g. national legislation)
Aldrin	Production	
	Use	
Chlordane	Production	
	Use	
Chlordecone	Production	
	Use	
DDT <sup>9</sup>	Production	
	Use	
Dieldrin	Production	
	Use	
Endrin	Production	
	Use	
Heptachlor	Production	
	Use	
Hexabromobiphenyl	Production	
	Use	
Hexachlorobenzene	Production	
	Use	
Mirex	Production	
	Use	
PCBs <sup>10</sup>	Production	

<sup>9</sup> Dichlorodiphenyltrichloroethane.



	Use	
Toxaphene	Production	
	Use	

29. Question 20: With reference to article 3, paragraph 1 (b) (i), please provide details of the measures your country has taken to ensure that the destruction or disposal of substances listed in annex I is undertaken in an environmentally sound manner, taking into account relevant international regimes, in particular the Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and Their Disposal (Basel Convention).

30. Question 21: With reference to article 3, paragraph 1 (b) (iii), please provide details of the measures taken to ensure that the transboundary movement of substances listed in annex I is conducted in an environmentally sound manner, taking into consideration applicable international regimes, in particular the Basel Convention.

31. Question 22: With reference to article 3, paragraph 1 (c), please provide details of the measures taken to restrict the substances listed in annex II to the uses described in that annex. Please complete the table below.

**Table 11: Question 22**

Substance	Measures taken (e.g. national legislation)
DDT	
HCH <sup>11</sup> (mixed isomers)	
Lindane (HCH gamma isomer)	
PCBs	

32. Question 23: Has your country granted any exemptions in accordance with article 4, paragraph 2 of the Protocol?

Yes  No

If yes, please provide details of the exemption and indicate when your country provided the secretariat with the information required under article 4, paragraph 3.

33. Question 24: Did your country apply any of the exemptions allowed for in annex I, other than those identified in annex II?

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<sup>10</sup> Polychlorinated biphenyls.

<sup>11</sup> Hexachlorocyclohexane.

Yes  No 

If yes, please provide details.

34. Question 25: With reference to article 3, paragraph 3, please provide details of the measures taken in your country to ensure that wastes and articles still in use containing the substances listed in annexes I, II, or III, upon becoming wastes, are destroyed or disposed of in an environmentally sound manner.

35. Question 26: With reference to article 3, paragraph 5 (b)(i), and annex V, please explain how you ensure the application of BAT, to each new stationary source (construction commenced after 23 October 2005) within a major stationary source category for which that annex identifies BAT, for example through national legislation, permitting procedures, guidance, etc.

36. Question 27: With reference to article 3, paragraph 5 (b)(ii), and annex IV, please provide details of the limit values applied to each new stationary source (construction commenced after 23 October 2005) within a category referred to in that annex. Please complete the table below.

**Table 12: Question 27**

<b>Major new stationary sources</b>	<b>Limit values for PCDD/F (in ng TE/m<sup>3</sup>, based on 11% oxygen in flue gas)</b>	<b>Other emission reduction strategies (if applicable)</b>
A. Municipal solid waste (>3 tons/hour)		
B. Medical solid waste (>1 ton/hour)		
C. Hazardous waste (>1 ton/hour)		

37. Question 28<sup>12</sup>: With reference to article 3, paragraph 5 (b)(iii), and annex V, please provide information on progress made towards applying BAT to each existing stationary source (construction commenced on or before 23 October 2005) within a major stationary source category for which that annex identifies BATs, in so far as this is technically and economically feasible. If your country intends to apply, as an alternative, different strategies that will achieve equivalent emission reductions, please describe these.

<sup>12</sup> Not mandatory. The obligation will become effective after 23 October 2011.

38. Question 29<sup>12</sup>: With reference to article 3, paragraph 5 (b)(iv), and annex IV, please provide information on progress made towards applying limit values to each existing stationary source (construction commenced on or before 23 October 2005) within a category mentioned in that annex, in so far as this is technically and economically feasible. If your country intends to apply, as an alternative, different strategies that will achieve equivalent emission reduction, please describe these.

**Table 13: Question 29**

<b>Major existing stationary sources</b>	<b>Limit values for PCDD/F ( in ng TE/m<sup>3</sup>, based on 11% oxygen in flue gas)</b>	<b>Other emission reduction strategies (if applicable)</b>
A. Municipal solid waste (>3 tons/hour)		
B. Medical solid waste (>1 ton/hour)		
C. Hazardous waste (>1 ton/hour)		

39. Question 30: With reference to article 3, paragraph 5 (b) (v), and taking into consideration annex VII, please provide details of the measures taken to control emissions from mobile sources. Please complete the table below.

**Table 14: Question 30**

<b>Mobile source categories for POPs</b>	<b>Measures (e.g. limit values<sup>1/</sup>, national legislation, guidance)</b>
A. Diesel-fuelled passenger cars	
B. Heavy duty vehicles	
C. Off-road engines	

1/ When limit values are given, please provide those for category A in g/km and those for categories B and C in g/kWh.

40. Question 31: With reference to article 3, paragraph 8, please provide the available (historical) information you have collected relating to the production and sales of the substances listed in annexes I and II to the Protocol. Please complete the table below.

**Table 15: Question 31**

<b>Substance</b>	<b>Production (quantity per year)</b>	<b>Sales (quantity per year)</b>
Aldrin		
Chlordane		
Chlordecone		
DDT		
Dieldrin		
Endrin		
Heptachlor		
Hexabromobiphenyl		
Hexachlorobenzene		
Mirex		
PCBs		
Toxaphene		
HCH		

## **VI. THE 1998 PROTOCOL ON HEAVY METALS**

41. The questions in this section are based on the reporting obligation of Parties in accordance with article 7, paragraphs 1 (a) and 2 and enable Parties to provide information on the implementation of the obligations under articles 3.1, 3.2 (a), 3.2 (b), 3.3 and 5.1 of the Protocol. Questions 35 and 36 are not yet mandatory. They are designed to enable Parties to provide information on progress made towards implementation of articles 3.2 (c) and 3.2 (d) concerning obligations that will be in force in 2011. Question 38 concerns an obligation that will enter into force in 2008.

42. They refer to the following Parties to the Protocol: Austria, Belgium, Bulgaria, Canada, Croatia, Cyprus, the Czech Republic, Denmark, Estonia, Finland, France, Germany, Hungary, Latvia, Liechtenstein, Lithuania, Luxembourg, Monaco, the Netherlands, Norway, Republic of Moldova, Romania, Slovakia, Slovenia, Sweden, Switzerland, the United Kingdom, the United States and the European Community.

43. 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.

44. 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 procedures, guidance, etc.

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

**Table 16: Question 34**

Category annex II	New stationary sources	Pollutant	ELV <sup>4/</sup> (in mg/ m <sup>3</sup> )	% O <sub>2</sub> in flue gas	National legislation	Alternative strategies <sup>3/</sup>
1	Combustion of solid and liquid fuels	Particulate matter (PM)				
2	Sinter plants	PM		n.a		
	Pellet plants: (a) grinding, drying (b) pelletizing or: (c) total plant emissions <sup>1/</sup>	PM PM PM		n.a.		
	Blast furnaces	PM		n.a		
3	Electric arc furnaces	PM		n.a		
	Production of copper and zinc (incl. Imperial Smelting furnaces)	PM		n.a		
5 and 6	Production of lead	PM		n.a		
7	Cement industry	PM		n.a		
8	Glass industry	Pb				
9	Chlor-alkali plants (mercury cell process) <sup>2/</sup>	Mercury (Hg)		n.a		
10 and 11	Hazardous waste incineration	PM Hg				
	Medical waste incineration	PM				
	Municipal waste incineration	PM Hg				

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

2/ Specify limit value in g Hg/Mg Cl<sub>2</sub> production capacity.

3/ If applicable describe how the equivalent overall emission reductions are achieved.

4/ Emisión limit value (ELV).

46. Question 35<sup>13</sup>: With reference to article 3, paragraph 2 (c), and annex III, please provide information on progress made towards applying BAT to each existing stationary source

<sup>13</sup> Not mandatory. The obligation will become effective after 29 December 2011.

(construction commenced on or before 29 December 2005) within a major stationary source category for which annex III identifies BAT. If your country intends, as an alternative, to apply different strategies that will achieve equivalent emission reductions, please describe these.

47. Question 36<sup>13</sup>: With reference to article 3, paragraph 2 (d), and annex V, please provide information on progress made towards applying limit values to each existing stationary source (construction commenced on or before 29 December 2005) within a major stationary source category, in so far as this is technically and economically feasible. If your country intends, as an alternative, to apply different strategies that will achieve equivalent emission reductions, please describe these. Please complete the table below.

**Table 17: Question 36**

Category annex II	Existing stationary sources	Pollutant	ELV (in mg/ m <sup>3</sup> )	% O <sub>2</sub> in flue gas	National legislation	Alternative strategies <sup>3/</sup>
1	Combustion of solid and liquid fuels	PM				
2	Sinter plants	PM		n.a		
	Pellet plants: (a) grinding, drying (b) pelletizing or: (c) total plant emissions <sup>1/</sup>	PM		n.a.		
		PM				
		PM				
3	Blast furnaces	PM		n.a		
	Electric arc furnaces	PM		n.a		
5 and 6	6. Production of copper and zinc (incl. Imperial Smelting furnaces)	PM		n.a		
	Production of lead	PM		n.a		
7	Cement industry	PM		n.a		
8	Glass industry	Pb				
9	Chlor-alkali plants (mercury cell process) <sup>2/</sup>	Hg		n.a		
10 and 11	Hazardous waste incineration	PM Hg				
	Medical waste incineration	PM				
	Municipal waste	PM				

Category annex II	Existing stationary sources	Pollutant	ELV (in mg/ m <sup>3</sup> )	% O <sub>2</sub> in flue gas	National legislation	Alternative strategies <sup>3/</sup>
	incineration	Hg				

1/ Specify limit value in g/Mg pellets produced

2/ Specify limit value in g Hg/Mg Cl<sub>2</sub> (chlorine gas) production capacity

3/ If applicable describe how the equivalent overall emission reductions are achieved.

48. 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.

49. 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 below.

**Table 18: Question 38**

Product	Hg content applied (% per weight)	Measures (e.g. national legislation, guidance, etc.)
1. Alkaline manganese batteries prolonged use (except button cells)		
2. Other alkaline manganese batteries (except button cells)		

## VII. GOTHENBURG PROTOCOL

50. The questions in this section are based on the reporting obligation of Parties in accordance with article 7, paragraph 1 (a), and enable Parties to provide information on the implementation of the obligations under articles 3.2, 3.3, 3.5, 3.8 and 6.1 (a) of the Protocol. Any Party that applies different emission reduction strategies that achieve equivalent overall emission levels for all source categories together, in accordance with article 3.2 and 3.3 and article 7 (a)(i), may go directly to question 49. By virtue of article 3.10 (b), questions 59–66 do not apply to the United States.

51. They refer to the following Parties to the Protocol: Belgium, Bulgaria, Cyprus, the Czech Republic, Denmark, Finland, France, Germany, Hungary, Latvia, Lithuania, Luxembourg, the Netherlands, Norway, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland, the United Kingdom, the United States and the European Community.



52. Question 39: With reference to [article 6, paragraph 1\(a\)](#), please provide details of the supporting strategies, policies and programmes your country has adopted to facilitate the implementation of its obligations under article 3 of the Protocol. Where pollutant specific policies, strategies or programmes are used, please make a clear distinction between (a) sulphur; (b) NO<sub>x</sub>; (c) VOCs; and (d) ammonia.

53. Question 40: With reference to [article 3, paragraph 2](#), and [annex IV, paragraph 9](#), specify the limit values for sulphur emissions applied to each new stationary source (construction or substantial modification commenced after 17 May 2006) in your country within stationary source categories identified in that annex. If you have applied alternative emission reduction strategies, please go to question 49. Please complete the table below.

**Table 19: Question 40**

Stationary source category <sup>1/</sup>	O <sub>2</sub> in flue gas (%)	Limit value <sup>2/</sup>	Alternative: Desulphurization rate for domestic solid fuel	National legislation
1. Solid and liquid fuels 50-100 MW <sub>th</sub>				
2. Solid and liquid fuels 100-300 MW <sub>th</sub>				
3. Solid and liquid fuels >300 MW <sub>th</sub>				
4. Gaseous fuels			n.a.	
5. Liquified gas			n.a.	
6. Low-calorific-value gases (e.g. gasification of refinery residues or combustion of coke oven gas)				
7. Blast furnace gas			n.a.	
8. Combustion plant in refineries >50 MW <sub>th</sub> total refinery capacity (average of all new installations)			n.a.	

1/ For new stationary source, see [article 1](#) (Definitions); for further information on stationary source categories see [annex IV](#) (paras. 9–12).

2/ Different limit values for different types of fuels may be provided, e.g. biomass, peat, etc.

54. Question 41: With reference to [article 3, paragraph 3](#) and [annex IV, paragraph 9](#), please provide details of the limit values for sulphur emissions applied in your country to each existing stationary source (construction commenced on or before 17 May 2006) within a stationary source category identified in that annex, in so far as it is technically and economically feasible and taking into consideration the costs and advantages. If you have applied alternative emission reduction strategies, please go to question 49. Please complete the table below.

**Table 20: Question 41**

Stationary source category <sup>1/</sup>	O <sub>2</sub> in flue gas (%)	Limit value <sup>2/</sup>	Alternative: Desulphurization rate for domestic solid fuel (%)	National legislation
1. Solid fuels 50-100 MW <sub>th</sub> <sup>1/</sup>				
2. Solid fuels 100-500 MW <sub>th</sub> <sup>2/</sup>				
3. Solid fuels >500 MW <sub>th</sub>				
4. Liquid fuels 50-300 MW <sub>th</sub>			n.a.	
5. Liquid fuels 300-500 MW <sub>th</sub>			n.a.	
6. Liquid fuels >500 MW <sub>th</sub>			n.a.	
7. Gaseous fuels			n.a.	
8. Liquified gas			n.a.	
9. Low-calorific-value gases (e.g. gasification of refinery residues or combustion of coke oven gas)			n.a.	
10. Blast furnace gas			n.a.	
11. Combustion plant in refineries (average of all existing installations)			n.a.	

1/ If you apply, as an alternative, a desulphurization rate, the category should be 50–150 MW<sub>th</sub>.

2/ If you apply, as an alternative, a desulphurization rate, the category should be 150–500 MW<sub>th</sub>.

55. Question 42: With reference to [article 3, paragraph 2](#), and [annex IV, paragraphs 11 and 12](#), please provide details of the limit values currently applied in your country for sulphur recovery for new and existing Claus plants and sulphur dioxide emissions from new and existing installations for titanium dioxide (TiO<sub>2</sub>) production.

56. Question 43: With reference to [article 3, paragraph 2](#), and [annex IV, paragraph 10](#), please provide details of the limit value for sulphur content of gas oil that is currently applied in your country.

57. Question 44: With reference to [article 3, paragraph 2](#) and [annex V](#), please provide details of the limit values for NO<sub>x</sub> emissions applied to each new stationary source (construction or substantial modification commenced after 17 May 2006) within stationary source categories identified in that annex. If you have applied alternative emission reduction strategies, please go to question 49. Please complete the table below.

**Table 21: Question 44**

Stationary source category	Limit value (mg/Nm <sup>3</sup> )	National legislation

<b>A. Boilers</b> <ol style="list-style-type: none"> <li>1. Solid fuels 50-100 MW<sub>th</sub></li> <li>2. Solid fuels 100-300 MW<sub>th</sub></li> <li>3. Solid fuels &gt;300 MW<sub>th</sub></li> <li>4. Liquid fuels 50-100 MW<sub>th</sub></li> <li>5. Liquid fuels 100-300 MW<sub>th</sub></li> <li>6. Liquid fuels &gt;300 MW<sub>th</sub></li> <li>7. Natural gas 50-300 MW<sub>th</sub></li> <li>8. Natural gas &gt;300 MW<sub>th</sub></li> <li>9. Other gases</li> </ol>		
<b>B. Onshore combustion turbines &gt;50 MW<sub>th</sub></b> <ol style="list-style-type: none"> <li>1. Natural gas</li> <li>2. Liquid fuels</li> </ol>		
<b>C. Cement production</b> <ol style="list-style-type: none"> <li>1. Dry kilns</li> <li>2. Other kilns</li> </ol>		
<b>D. Stationary engines</b> <ol style="list-style-type: none"> <li>1. Spark ignition engines, 4-stroke, &gt;1 MW<sub>th</sub>: Lean-burn engines</li> <li>2. All other spark-ignition engines</li> <li>3. Compression ignition (=Diesel) engines, &gt;5 MW<sub>th</sub>: natural gas (jet ignition engines)</li> <li>4. Compression ignition (=Diesel) engines, &gt;5 MW<sub>th</sub>: heavy fuel oil</li> <li>5. Compression ignition (=Diesel) engines, &gt;5 MW<sub>th</sub>: diesel oil or gas oil</li> </ol>		
<b>E. Sinter plants</b>		
<b>F. Nitric acid production, excl. acid concentration units</b>		

58. Question 45: With reference to [article 3, paragraph 3](#), and [annex V](#), please provide details of the limit values for NO<sub>x</sub> emissions applied in your country to each existing stationary source (construction commenced on or before 17 May 2006) within a stationary source category identified in that annex, in so far as it is technically and economically feasible and taking into consideration the costs and advantages. If you have applied alternative emission reduction strategies, please go to question 49. Please complete the table below.

**Table 22: Question 45**

Stationary source category	Limit value (mg /Nm <sup>3</sup> )	National legislation
<b>A. Boilers</b> <ol style="list-style-type: none"> <li>1. Solid fuels 50-100 MW<sub>th</sub></li> </ol>		

2. Solid fuels 100-300 MWth 3. Solid fuels >300 MWth 4. Liquid fuels 50-100 MWth 5. Liquid fuels 100-300 MWth 6. Liquid fuels>300 MWth 7. Natural gas 50-300 MWth 8. Natural gas >300 MWth 9. Other gases		
<b>B. Onshore combustion turbines &gt;50Mwth</b> 1. Natural gas 2. Liquid fuels		
<b>C. Cement production</b> 1. Dry kilns 2. Other kilns		
<b>D. Sinter plants</b>		
<b>E. Nitric acid production, excl. acid concentration units</b>		

45 bis. [Comment from the secretariat: The Executive Body decided that the below question, which was formerly question 13 of part II of the questionnaire “General policy questions” (ECE/EB.AIR/2009/13) be better placed here, between questions 45 and 46].

Please describe how your country applies best available techniques (BAT) to mobile sources and to each new or existing stationary source with regard to the Gothenburg Protocol obligations and taking into account guidance documents I to V adopted by the Executive Body at its seventeenth session (decision 1999/1).

59. Question 46: With reference to article 3, paragraphs 2 and 3, and annex VI, please provide details of the limit values for VOCs emissions applied in your country to new stationary sources (construction or substantial modification commenced after 17 May 2006) for the stationary source category defined in table I of that annex and to existing stationary sources (construction commenced on or before 17 May 2006), in so far as it is technically and economically feasible and taking into consideration the costs and advantages. If you have applied alternative emission reduction strategies, please go to question 49. Please complete the table below.

**Table 23: Question 46**

Source category	Limit value (g VOCs/Nm <sup>3</sup> )	National legislation
<b>Storage and distribution of petrol, excluding loading of seagoing ships:</b> Vapour recovery unit serving storage and distribution facilities at refinery tank farms or terminals with petrol throughput of 5000 m <sup>3</sup> annually		

60. Question 47: With reference to article 3, paragraphs 2 and 3, and annex VI, please provide details of the limit values for VOCs emissions applied in your country to new stationary sources (construction or substantial modification commenced after 17 May 2006) for the stationary source categories defined in Tables II, V, VI, VIII, IX, X, XI, XII, XIV and XV of that annex and to existing stationary sources (construction commenced on or before 17 May 2006), in so far as it is technically and economically feasible and taking into consideration the costs and advantages. If you have applied alternative emission reduction strategies, please go to question 49.

61. Please complete the table below.

**Table 24: Question 47**

Source category and solvent consumption (Mg/year)	Limit value (mg C/Nm <sup>3</sup> ) and relevant conditions/ alternatives e.g. solvent reuse, process sub-part, % of solvent input	Limit value for fugitive emissions of non-methane VOCs (% of solvent input) and relevant conditions/ alternatives e.g. process sub-part, kg solvent per unit of product	National legislation
1. Adhesive coating (annex VI, table II) (a) Footwear manufacture >5 Mg/year <sup>1/</sup> (b) Other adhesive coating, excl. (a) (i) 5–15 Mg/year (ii) >15 Mg/year			
2. Coating processes in various industrial sectors (annex VI,			

Source category and solvent consumption (Mg/year)	Limit value (mg C/Nm <sup>3</sup> ) and relevant conditions/ alternatives e.g. solvent reuse, process sub-part, % of solvent input	Limit value for fugitive emissions of non-methane VOCs (% of solvent input) and relevant conditions/ alternatives e.g. process sub-part, kg solvent per unit of product	National legislation
table V)			
(a) Other coating, incl metal, plastics, textile, fabric, foil and paper (excl. web screen printing for textiles) (i) 5–15 Mg/year			
(ii) >15 Mg/year (b) Wood coating (i) 5–15 Mg/year (ii) >15 Mg/year			
3. Coil coating > 25 Mg/year (annex VI, table VI) (i) New installations (ii) Existing installations			
4. Manufacturing of coatings, varnishes, inks and adhesives (annex VI, table VIII) (a) 100-1,000 Mg/year (b) >1,000 Mg/year			
5. Printing processes (annex VI, table IX) (a) Heat set web offset (i) 15–25 Mg/year (ii) > 25 Mg/year (b) Publication rotogravure > 25 Mg/year (i) New installations (ii) Existing installations (c) Other rotogravure, flexography, rotary screen printing, lamination and varnishing units (i) 15–25 Mg/year (ii) >25 Mg/year			
(e) Rotary screen printing on textiles, paperboard > 30			

<b>Source category and solvent consumption (Mg/year)</b>	<b>Limit value (mg C/Nm<sup>3</sup>) and relevant conditions/ alternatives e.g. solvent reuse, process sub-part, % of solvent input</b>	<b>Limit value for fugitive emissions of non-methane VOCs (% of solvent input) and relevant conditions/ alternatives e.g. process sub-part, kg solvent per unit of product</b>	<b>National legislation</b>
Mg/year			
6. Manufacturing of pharmaceutical products >50 Mg/year (annex VI, table X) (i) New installations (ii) Existing installations			
7. Conversion of natural or synthetic rubber > 15 Mg/year (annex VI, table XI)			
8. Surface cleaning (annex VI, table XII) (a) Using substances mentioned in para. 3 (w) 1–5 Mg/year >5 Mg/year (b) Other surface cleaning 2–10 Mg/year >10 Mg/year			
9. Vehicle refinishing >0.5 Mg/year (annex VI, table XIV)			
10. Impregnation of wooden surfaces >25 Mg/year (annex VI, table XV)			

1/ Specify limit value in g solvent per pair

62. Question 48: With reference to article 3, paragraphs 2 and 3, and annex VI, please provide details of the limit values for VOCs emissions applied in your country to new stationary sources (construction or substantial modification commenced after 17 May 2006) for the stationary source categories defined in tables III, IV, VII and XIII of that annex and to existing stationary sources (construction commenced on or before 17 May 2006), in so far as it is technically and economically feasible and taking into consideration the costs and advantages. If you have applied alternative emission reduction strategies, please go to question 49. Please complete the table below.

**Table 25: Question 48**

<b>Capacity, technique, further specification and solvent consumption</b>	<b>Limit value for total emissions of non-methane VOCs (NMVOCs) (specify unit)</b>	<b>National legislation</b>
<b>1. Wood and plastic lamination &gt;5 Mg/year</b> (annex VI, table III)		
<b>2. Coating processes in the car industry</b> (annex VI, table IV) (a) Car coating (M1, M2) > 15 Mg/year of solvent consumption (i) >5,000 coated items a year - New installations - Existing installations (ii) ≤5,000 coated monocoques or >3,500 coated chassis a year (b) Coating of new truck cabins (N1, N2, N3) >15 Mg/year of solvent consumption (i) ≤5,000 coated items a year - New installations - Existing installations		
(ii) >5,000 coated items a year		
- New installations - Existing installations (c) Coating of new trucks and vans (without cabin) (N1, N2,N3) >15 Mg/year of solvent consumption (i) ≤2,500 coated items a year - New installations - Existing installations		
- Existing installations		
(ii) >2,500 coated items a year - New installations - Existing installations (d) Coating of new buses (M3) >15 Mg/year of solvent consumption (i) ≤2,000 coated items a year - New installations - Existing installations (ii) >2,000 coated items a year		
- New installations - Existing installations		



Capacity, technique, further specification and solvent consumption	Limit value for total emissions of non-methane VOCs (NMVOCs) (specify unit)	National legislation
<b>3. Dry cleaning</b> (annex VI, table VII)		
<b>4. Extraction of vegetable and animal fat and refining of vegetable oil &gt;10 Mg of solvent consumption a year</b> (annex VI, table XIII) (a) Animal fat (b) Castor (c) Rape seed (d) Sunflower seed (e) Soya beans (normal crush) (f) Soya beans (white flakes) (g) Other seeds and vegetable material (h) All fractionation processes, excl. degumming (i) Degumming		

63. Question 49: With reference to article 7, paragraph 1(a)(i), please specify whether your country, instead of applying the measures referred to in articles 3.2 and 3.3, has applied any alternative emission reduction strategies to achieve overall emission levels for all source categories together, equivalent to those resulting from the measures. Please provide details of any such strategies and the way in which overall emission levels are achieved.

64. Question 50: With reference to article 7, paragraph 1(a)(ii), where your country, taking into consideration the costs and advantages, considers certain limit values, as specified in accordance with article 3.3, not to be technically and economically feasible for specific existing stationary sources, please provide a justification for this.

65. Question 51: With reference to article 3, paragraph 5 and annex VIII, please provide details of the most recent limit values applied in your country to new passenger cars and light-duty vehicles. Please complete the table below.

**Table 26: Question 51<sup>1/</sup>**

Category, class	Reference mass (RW)(kg)	National legislation and date of application	Limit values							
			Carbon monoxide (CO)		Hydro-carbon (HC)	NO <sub>x</sub>		HC+NO <sub>x</sub>		Parti- culates
			L1(g/km)		L.2 (g/km)	L.3(g/km)		L2+L3(g/km)		L4 (g/km)
			Petrol	Diesel	Petrol	Petrol	Diesel	Petrol	Diesel	Diesel
M	All									
N1 (I)	RW≤1305									
N1 (II)	1305< RW≤1760									
N1 (III)	1760<RW									

1/ For further information, see annex VIII, table I.

66. Question 52: With reference to [article 3, paragraph 5](#) and [annex VIII](#), please provide details of the most recent limit values applied in your country to new heavy-duty vehicles if the ESC/ELR test<sup>1/</sup> is used. Please complete the table below.

**Table 27: Question 52**

National <sup>1/</sup> legislation and date of application	CO (g/kWh)	HC (g/kWh)	NO <sub>x</sub> (g/kWh)	Particulates (g/kWh)	Smoke (m <sup>-1</sup> )

1/ For further information, see [annex VIII](#), table II.

67. Question 53: With reference to [article 3, paragraph 5](#), and [annex VIII](#), please provide details of the most recent limit values applied in your country to new heavy-duty vehicles if the ETC test<sup>1/</sup> is used. Please complete the table below.

**Table 28: Question 53**

National <sup>1/</sup> legislation and date of application	CO (g/kWh)	Non-methane HC (g/kWh)	Methane (g/kWh)	NO <sub>x</sub> (g/kWh)	Particulates (g/kWh)

1/ For further information, see [annex VIII](#), Table III.

68. Question 54: With reference to [article 3, paragraph 5](#), and [annex VIII](#), please provide details of the most recent limit values applied in your country to new diesel engines for non-road mobile machines (ISO 8178). Please complete the table below.

**Table 29: Question 54**

Net power <sup>1/</sup> (p) (kW)	National legislation and date of application	CO (g/kWh)	HC (g/kWh)	NO <sub>x</sub> (g/kWh)	PM (g/kWh)
130 ≤ P < 560					
75 ≤ P < 130					
37 ≤ P < 75					
18 ≤ P < 37					

1/ For further information, see [annex VIII](#), table V.

69. Question 55: With reference to [article 3, paragraph 5](#), and [annex VIII](#), please provide details of the most recent limit values applied in your country to new motorcycles and three- and four-wheelers (> 50 cm<sup>3</sup>; > 45 km/h). Please complete the table below.

**Table 30: Question 55**

Engine type <sup>1/</sup>	National legislation and date of application	CO (g/km)	HC (g/km)	NO <sub>x</sub> (g/km)
<b>1. Two-stroke</b> (a) Motorcycles (b) 3- and 4- wheelers				
<b>2. Four-stroke</b> (a) Motorcycles (b) 3- and 4-wheelers				

1/ For further information, see [annex VIII](#), table VI.

70. Question 56: With reference to [article 3, paragraph 5](#), and [annex VIII](#), please provide details of the most recent limit values applied in your country to new mopeds (≤ 50 cm<sup>3</sup>; ≤ 45 km/h)<sup>1/</sup>. Please complete the table below.

**Table 31: Question 56**

<b>National legislation and date of application</b>	<b>CO (g/km)</b>	<b>HC+ NO<sub>x</sub> (g/km)</b>

1/ For further information, see [annex VIII](#), table VII.

71. Question 57: With reference to [article 3, paragraph 5](#), and [annex VIII](#), tables VIII and X please provide details of the limit values applied in your country to petrol. Please complete the table below.

**Table 32: Question 57**

<b>Parameter<sup>1/</sup></b>	<b>Limits</b>		<b>National legislation and date of application</b>
	<b>Minimum</b>	<b>Maximum</b>	
1. Research octane number			
2. Motor octane number			
3. Reid vapour pressure, summer period (in kPa)			
4. Distillation: (a) Evaporated at 100° C (in %v/v) (b) Evaporated at 150° C (in %v/v)			
5. Hydrocarbon analysis:			
(a) Olefins ( in %v/v)			
(b) Aromatics			
(c) Benzene			
6. Oxygen content (in %m/m)			
7. Oxygenates (in %v/v): (a) Methanol, stabilizing agents must be added (b) Ethanol, stabilizing agents may be necessary (c) Iso-propyl alcohol (d) Tert-butyl alcohol (e) Iso-butyl alcohol (f) Ethers containing 5 or more carbon atoms per molecule			
8. Other oxygenates ( in %v/v)			
9. Sulphur content (in mg/kg)			

1/ For further information, see [annex VIII](#), tables VIII and X.

72. Question 58: With reference to [article 3, paragraph 5](#) and [annex VIII](#), tables IX and XI, please provide details of the limit values applied in your country to diesel fuel. Please complete the table below.

**Table 33: Question 58**

Parameter <sup>1/</sup>	Limits		National legislation and date of application
	Minimum	Maximum	
1. Cetane number			
2. Density at 15° C (in kg/m <sup>3</sup> )			
3. Distillation point: 95% (in °C)			
4. Polycyclic aromatic hydrocarbons (in % m/m)			
5. Sulphur content (in mg/kg)			

1/ For further information, see annex VIII, tables IX and XI.

73. Question 59: With reference to article 3, paragraph 8 (a) and annex IX, paragraph 3, have you established, published and disseminated an advisory code on good agricultural practice to control ammonia emissions? If so, please provide details of its provisions, relevant to:

- (a) Nitrogen management, taking account of the whole nitrogen cycle;
- (b) Livestock feeding strategies;
- (c) Low-emission manure spreading techniques;
- (d) Low-emission manure storage systems;
- (e) Low-emission animal housing systems;
- (f) Possibilities for limiting ammonia emissions from the use of mineral fertilizers.

74. Question 60: With reference to article 3, paragraph 8 (a), and annex IX, paragraph 4, please provide details of the steps taken in your country to limit ammonia emissions from the use of solid fertilizers based on urea.

75. Question 61: With reference to article 3, paragraph 8 (a), and annex IX, paragraph 5, please indicate whether the use of ammonium carbonate fertilizers is prohibited in your country and specify the relevant legislation.

76. Question 62: With reference to article 3, paragraph 8 (a), and annex IX, paragraph 6, please explain how your country ensures the use of the low-emission slurry application techniques listed in guidance document V (ECE/EB.AIR/WG.5/2007/13), taking into account local soil and geomorphological conditions, slurry type and farm structure.

77. Question 63: With reference to article 3, paragraph 8 (a), and annex IX, paragraph 7, please provide details of the measures taken in your country to limit ammonia emissions from solid manure application, and in particular whether there is a requirement that solid manure applied to land to be ploughed is incorporated within at least 24 hours of spreading.

78. Question 64: With reference to article 3, paragraph 8 (a), and annex IX, paragraph 8, please provide details on the use in your country of the low-emission storage systems for new slurry stores (construction commenced after 17 May 2006) on large pig and poultry farms (2,000 fattening pigs, or 750 sows or 40,000 poultry) or techniques that have been shown to reduce emissions by 40 per cent or more compared to the reference listed in guidance document V (ECE/EB.AIR/WG.5/2007/13).

79. Question 65: With reference to article 3, paragraph 8 (a) and annex IX, paragraph 9, please provide details of whether emission reductions of 40 per cent have been achieved in your country for existing slurry stores (construction commenced on or before 17 May 2006) on large pig and poultry farms (2,000 fattening pigs, or 750 sows or 40,000 poultry).

80. Question 66: With reference to article 3, paragraph 8 (a) and annex IX, paragraph 10, please provide details of the use in your country of housing systems for new animal housing on large pig and poultry farms which have been shown to reduce emissions by 20 per cent or more compared to the reference listed in guidance document V (ECE/EB.AIR/WG.5/2007/13).

### VIII. FEEDBACK ON THE QUESTIONNAIRE

81. Question 67: Have you encountered difficulties in answering this questionnaire, whether technical or interpretative? Please provide further details by completing the table below.

**Table 34: Question 67**

Question No	Problem	Suggestion for improvement

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