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

2010 QUESTIONNAIRE FOR PRIORITY COMPLIANCE REVIEW

As adopted by the Executive Body at its twenty-seventh session

Answer AUSTRIA

I. THE 1985 SULPHUR PROTOCOL

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.

Question 1: With reference to <u>article 6</u> 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 and/or the 1999 Gothenburg Protocol, you may cross-refer to question 13 and/or 39.

For information about national policies for the reduction of sulphur emissions see Q.13.

II. THE 1988 NITROGEN OXIDES PROTOCOL

The questions in this section are based on the reporting obligation of Parties in accordance with <u>article 8</u> and enable Parties to provide information on the implementation of the obligations under articles 2, 4 and 7 of the Protocol.

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.

Question 2: With reference to <u>article 7</u>, 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 nitrogen oxides (NO_x) or their transboundary fluxes. If your country is a Party to the Gothenburg Protocol, you may cross-refer to question 39.

For new or modified industrial installations a permit is required according to the Industrial Code [33] and the Clean Air Act for Steam Boilers [1]. 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 (see Q.3-5).

National emission standards for vehicles have been introduced in the 1980s. These standards have been improved and extended at EU-level, emission standards for off-road mobile sources have been introduced. In 2008 a reduced car registration tax rate has been introduced for cars which already conform to the future EURO 6 emission standard.

Emissions from domestic heating are regulated at the level of the federal provinces. Common limit values for the type approval of domestic stoves and boilers have been laid down in an formal agreement between the federal provinces in the 1990ies; an update of that agreement is under preparation.

Exceedances of air quality limit values are the driving force for regional measures to reduce emissions from road transport and other sources. The national strategy for achieving the Kyoto target contains several measures that also contribute to reducing NO_x emissions (e.g. reduced energy consumption of buildings, modal shift from road to rail transport, electricity from hydro and wind power). The 2003 Austrian Law on Emission Ceilings requests the Federal Government to develop a national program according to the respective EU directive. The programme is focused to

NO_x as that pollutant turns out to be the greatest challenge with respect to the existing ceiling. The programme includes, among other measures, voluntary agreements with two branches of industry.

Emissions from stationary sources (energy industries and manufactoring industries) as well as emissions from residential combustion have dropped by slightly less than one third between 1987 and 2008. Emissions from road transport, however, have considerably increased due to road fuel that is sold in Austria but consumed abroad ("fuel tourism", mainly in long-distance freight traffic). Emissions from road fuel used in Austria only, on the contrary, have decreased by 23 %. Emissions from off-road mobile sources have increased considerably. The development of programs for attaining reduction targets has also been made difficult by several revisions of inventory methods and emission factors, which have each resulted in the calculation of higher emissions (timeseries and projections) compared to the previous methods and emission factors.

Question 3: With reference to <u>article 2, paragraph 2 (a)</u>, please specify the national NO_x emission standards applied to major stationary sources and/or major source categories in your country, taking into consideration the <u>technical annex</u> 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_{th}. Please complete the table below.

For several categories of new and substantially modified stationary sources emission standards have been set by ordinance, as for steam boilers > 0,35 MW $_{\rm th}$ and other boilers and furnaces [1, 2] (limit values for sources > 50 MW $_{\rm th}$ see table below), and for other industrial plants [3–10] (see table below). 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. For other industrial sources individual emission standards and/or measures according to best available technique have to be determined in the licensing procedure for each installation.

The same regulations for steam boilers are in force for the other stationary source categories listed in the Technical Annex of the Protocol (e.g. public power, waste incineration). Regulations on other stationary sources (e.g. domestic heaters) have been enacted as well.

Table 1: Question 3

Major stationary sources or major source category2/ for NOx	National emission standards1/	National legislation and comments (e.g. BAT1 applied)
1. Public power, cogeneration and district heating plants:		

¹ Best available technologies.

(a) Boilers	Boilers > 50 MW _{th} : - solid fuels: 200 mg/m ³ - fuel oil: 100 mg/m ³ - natural gas: 100 mg/m ³ [half hour (daily) mean value]	[1]
(b) Stationary combustion turbines and internal combustion engines	Turbines > 50 MW _{th} : - liquid fuels: 80–150 mg/m ³ - natural gas: 35–80 mg/m ³ [half hour (daily) mean value]	[1]
2. Commercial, institutional and residential combustion plants:		
(a) Commercial boilers	Boilers > 50 MW _{th} : - coal/coke: 100–200 mg/m ³ - wood: 200–350 mg/m ³ - fuel oil: 100 mg/m ³ - natural gas/LPG: 100 mg/m ³ [half hour (daily) mean value]	[1], [2]
(b) Domestic heaters	 coal, coke: 100 mg/MJ fuel wood: 150 mg/MJ liquid fuels: 35 mg/MJ gaseous fuels: 30–60 mg/MJ (limit values for the type approval of heaters) 	Legislation of the federal provinces
3. Industrial combustion plants		
and processes with combustion (a) Boilers and process heaters (no direct contact between flue gas and products)	Boilers > 50 MW _{th} : - coal/coke: 100–200 mg/m ³ - wood: 200–350 mg/m ³ - fuel oil: 100 mg/m ³ - natural gas/LPG: 100 mg/m ³ [half hour (daily) mean value]	[1], [2]
(b) Processes (direct contact); (e.g. calcinations processes in rotary kilns; production of cement, lime, etc.; glass production; metallurgical operation; pulp production)	Production/processing of iron and steel in general: - gaseous fuels: 250 mg/m³ - liquid fuels: 350 mg/m³ - solid fuels: 500 mg/m³ special processes: 350–500 mg/m³ Sintering plants: 400 mg/m³ Casting of metals: 250–500 mg/m³ Production/processing of non ferrous metals in general: - gaseous fuels: 150 mg/m³ - liquid fuels: 350 mg/m³ - solid fuels: 350 mg/m³	[3] [4] [6] [5]
	[half hour (daily) mean value] Production of bricks: 200–300 mg/m³ Production of gypsum: 250–500 mg/m³ Production of glass: 500–1500 mg/m³ [half hour mean value]	[7] [8] [10]
	Production of cement: 500 mg/m ³ [daily mean value]	[9], [18]

4. Non-combustion processes, e.g. nitric acid production		BAT has to be applied in the licensing procedure
5. Extraction, processing and distribution of fossil fuels	Boilers > 50 MW _{th} : - liquid fuels: 400–450 mg/m ³ - natural gas: 200–300 mg/m ³ [one hour mean value]	[1], 2001/80/EC
6. Waste treatment and disposal, e.g. incineration of municipal and industrial waste	100–300 mg/m ³ , half hour mean value 70–200 mg/m ³ , daily mean value	[18]

^{1/} Specify the units and statistical treatment.

Question 4: With reference to <u>article 2, paragraph 2 (c)</u>, please provide details of the pollution control measures for NO_x emissions introduced in your country for major stationary sources with a thermal input of at least 100 MW_{th}, the construction of which commenced on or before 14 February 1993, taking into consideration the <u>technical annex</u> to the Protocol. Please complete the table below.

In principle the same requirements on emission control apply to both new and existing sources, see Q. 3. Transition periods of some years are granted for retrofitting existing installations. For **steam boilers licensed before 1 Juli 1987**, different emission limit values have been laid down [1] (in addition to the application of primary measures); see the table below. Permits for large installations had to be adapted to technical progress according to Council Directive 96/61/EC until 31 October 2007 at the latest.

Table 2: Question 4

Major stationary source	Pollution control measures applied	Comments (national legislation, relevant plant characteristics e.g. age, utilization rate)
1. Public power, cogeneration and district heating plants:		
(a) Boilers	Boilers > 50 MW _{th} , licensed before 1 Juli 1987: – solid fuels: 200–600 mg/m ³ – fuel oil: 150–450 mg/m ³ – natural gas: 150–300 mg/m ³ [half hour mean value]	[1]

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

(b) Stationary combustion turbines	natural gas: 300 mg/m ³	[1]
and internal combustion engines	[half hour mean value]	
2. Commercial, institutional and		
residential combustion plants:		
(a) Commercial boilers	see Q.3	
(b) Domestic heaters	see Q.3	
3. Industrial combustion plants and		
processes with combustion		
(a) Boilers and process heaters (no	Boilers > 50 MW _{th} :	[2]
direct contact between flue gas and	 – solid fuels: 200–600 mg/m³ – fuel oil: 150–450 mg/m³ 	
products)	– natural gas: 150–300 mg/m³	
	[half hour mean value]	
(b) Processes (direct contact); (e.g.	see Q.3	
calcinations processes in rotary kilns;		
production of cement, lime, etc.; glass		
production; metallurgical operation;		
pulp production)		
4. Non-combustion processes, e.g. nitric	see Q.3	
acid production		
5. Extraction, processing and distribution	see Q.3	
of fossil fuels		
6. Waste treatment and disposal, e.g.	see Q.3	
incineration of municipal and industrial		
waste		

Question 5: With reference to <u>article 2, paragraph 2 (b)</u>, please specify the national NO_x emission standards applied to newly registered mobile sources in all major source categories, taking into consideration the <u>technical annex</u> 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.

Emissions of mobile sources are regulated according to the respective EU directives. Emission standards shown in Table 3 are currently in force. (Past and future standards are not listed.)

Table 3: Question 5

	NO _x e	mission		
Mobile source category	standards (unit: g/km		Date	National legislation
	or g/kWh)			
	Petrol	Diesel		
1. Road vehicles				[11]
(a) Passenger cars:	0.08 g/km	0.25 g/km		
(b) Light commercial vehicles Class I	0.08 g/km	0.25 g/km		
Class II	0.10 g/km	0.33 g/km		
Class III (c) Heavy-duty vehicles (HDV)	0.11 g/km	0.39 g/km 2.0 g/kWh		
(d) Motorcycles	0.15 g/km			
Mopeds	1,2 g/km NOx+HC			
(e) Tractors (agricultural and		8.0–6.0		
forestry)		g/kWh		
2. Non-road engine applications:				[12]
agricultural, mobile industrial and				
construction machinery				
≤ 18 kW	10 g/kWh			
$19 \le kW \le 37$ $37 \le kW \le 75$		7.5 g/kWh		
$75 \le kW \le 73$ $75 \le kW \le 130$		4.7 g/kWh		
$130 \le kW \le 560$		4.0 g/kWh 4.0 g/kWh		
		NOx+HC		
3. Other mobile sources				
(a) Rail transport				[12]
Self-propelled rail cars		4.0 g/kWh		
Locomotives		NOx+HC		
130 < kW < 560		4.0 g/kWh		
		NOx+HC		
> 560 kW		6.0 g/kWh		
> 2000 kW and > 5		7.4 g/kWh NOx		
litres/cylinder				

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(b) Ships and other marine craft Recreational craft	9.8–15 g/kWh NOx	[34]	
Inland shipping	7.5–11.0 g/kWh NOx+HC	[12]	
(c) Aircraft			

Question 6: With reference to <u>article 4</u>, 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?

Yes X No \square

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. THE 1991 PROTOCOL ON VOLATILE ORGANIC COMPOUNDS

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).

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.

Question 7: With reference to <u>article 7</u>, 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.

For new or modified industrial installations a permit is required according to the Industrial Code [33] and the Clean Air Act for Steam Boilers [1]. 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 (see Q.8–11).

Solvent content of paints and lacquers was generally restricted in the early 1990s according to the 1993 Austrian Solvent Ordinance. These regulations have been extended and partially replaced by the transposition into national law of the EU solvent directive and the EU directive on products containing solvents.

National emission standards for vehicles have been introduced in the 1980s. These standards have been improved and extended at EU-level, emission standards for off-road mobile sources have been introduced. In 2008 a reduced car registration tax rate has been introduced for cars which already conform to the future EURO 6 emission standard.

Emissions from domestic heating are regulated at the level of the federal provinces. Common limit values for the type approval of domestic stoves and boilers have been laid down in an formal agreement between the federal provinces in the 1990ies; an update of that agreement is under preparation.

Exceedances of air quality limit values are the driving force for regional measures to reduce emissions from road transport and other sources. The national strategy for achieving the Kyoto

target contains several measures that also contribute to reducing VOC emissions (e.g. reduced energy consumption of buildings, modal shift from road to rail transport, electricity from hydro and wind power, replacement of old domestic stoves and boilers).

From 1988 (reference year) to 2008, VOC emissions have dropped by more than fifty percent.

Question 8: With reference to <u>article 2, paragraph 3 (a) (i)</u>, 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.

For several categories of new stationary sources emission standards have been set, as for industrial coating (according to Directive 1999/13/EC; stricter standards existing in Austria before have been maintained [14]), for the production of iron and steel and of non-ferrous metals as well as for foundries [3, 5, 6], and some categories of steam boilers. More stringent limit values may be prescribed in the licensing procedure due to local/regional air quality concerns. For other industrial sources individual emission standards and/or measures according to best available technique have to be set in the licensing procedure for each installation. Emission limit values for the type approval of boilers for residential heating have been laid down at the level of the federal provinces.

Table 4: Question 8

Stationary source	Emission standards for	National legislation
	VOCs ^{1/}	
1. Use of solvents	emission limit values for	[14]
	various industrial branches	
	have been enacted, which	
	cannot be shown reasonably in	
	a table cell. Please refer to the	
	Austrian answer to Question 8	
	of the 2006 Policy Review.	
2. Petroleum industry,	vapor recovery obligatory (for	[24], [25]
including petroleum-product	petrol stage I and II)	
handling		
3. Organic chemical industry	ELVs for production of	
	pharmaceuticals, coating	
	preparations, varnishes, inks	
	and adhesives. Please refer to	
	the Austrian answer to	
	Question 8 of the 2006 Policy	
	Review.	

4. Small-scale combustion sources (e.g. domestic heating and small industrial boilers)	Domestic boilers: - liquid fuels 6 - solid fuels, autom. charg. 40 - solid fuels, manual charg. 80 mg/MJ organic C content (limit values for type approval);	Legislation of the federal provinces
5. Food industry	Emission standards and/or measures according to best available technique have to be determined in the licensing procedure.	
	ELVs for vegetable oil and animal fat extraction have been enacted; please refer to the Austrian answer to Question 8 of the 2006 Policy Review.	
6. Iron and steel industry	50 mg C/m³, half hour mean value	[3]
7. Handling and treatment of waste	50 mg C/m ³ for waste combustion	[18]
8. Agriculture	Burning of straw and stubble prohibited (with few exemptions)	[35]

^{1/} Specify the units and statistical treatment.

Question 9*: With reference to article 2, paragraph 3 (b) (i), please indicate the best available technologies (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.

The same requirements on emission limit values apply to both new and existing industrial installations, see Q. 8. Transition periods of some years had been granted for existing installations. In general, existing stationary sources apply a combination of available technologies (primary and secondary measures) to comply with the emission standards.

Table 5: Question 9

^{*}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.

Stationary source in major source categories 1/	BAT applied	Source of BAT (provide reference of e.g. national legislation, guidance, documentation)
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.

Question 10*: With reference to <u>article 2, paragraph 3 (b)(ii)</u>, 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 <u>annex II (IV.B., paras. 39-44)</u> and <u>annex III (IV. paras. 27–34)</u> to the Protocol.

Stage I and stage II control are stipulated by Austrian legislation. Stage II measures had to be implemented until 1998 at the latest. For industrial storage tanks with an annual turnover of less than 25,000 t petrol, which were licensed before 1996, temporary exemptions from the installation of a vapour recovery unit were granted until 2005, if vapour balancing was not possible for technical reasons.

A reduction of the volatility of petrol has been stipulated by directive 1998/70/EC, which has been transposed into national law by the Austrian Fuel Ordinance [15]. Charcoal canisters for petrol-fuelled cars are mandatory.

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

^{*} 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.

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According to the EU directive on products containing solvents 2004/42/EC, which has been transposed into national law by the Solvent Ordinance 2005 [13], limits for the solvent content of certain decorative paints and varnished and vehicle refinishing products have been introduced in 2007 and tightened in 2010. Products shall carry a label that indicates the VOC content of the product. In addition to the mandatory regulations, the Austrian eco-label "Österreichisches Umweltzeichen" can be awarded to low-solvent paints.

Question 12: With reference to <u>article 2, paragraph 3 (a)(iii)</u>, please specify the national or international emission standards applied in your country to newly registered mobile sources, taking into consideration <u>annex III</u> 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.

Emissions of mobile sources are regulated according to the respective EU directives. Emission standards shown in Table 6 are currently in force. (Past and future standards are not listed.)

Table 6: Question 12

	Emission star	dards for VOCs	
Mobile source	(g/km) or (g/kWh)		National legislation
	Petrol	Diesel	
1. Passenger cars and	0.10 g/km	0.30 g/km (NO _x + HC)	[11]
light commercial	LDVs: 0.10-016 g/km	LDVs: 0.30-0.46 g/km	
vehicles	g	(NO _x + HC)	
2. Trucks and buses		0.46 g/kWh (ESC-Test)	[11]
3. Motorcycles and	Mopeds 1.2 g/km		[11]
mopeds	(NO _x + HC)		
	Motorcycles 0.8–0.3		
	g/km HC		
4. Off road vehicles,	12.1–72 g/kWh	$4.0-7.5 \text{ g/kWh (HC+NO}_x)$	[12]
machines and	(HC+NO _x)	Locomotives: 4.0 g/kWh	
locomotives		$(HC+NO_x) / 0.4-0.5 g/kWh$	
	Di "	NO _x	[10]
5. Other sources, e.g.	Pleasure craft:	Inland navigation: 7.2–11.0	[12]
ships (pleasure craft)	Depending on engine power	g/kWh (HC+NO _x)	
		Pleasure craft: Depending	[34]
		on engine power	

IV. THE 1994 SULPHUR PROTOCOL

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.

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.

Question 13: With reference to <u>article 4, paragraph 1(a)</u>, 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.

For new or modified industrial installations a permit is required according to the Industrial Code [33] and the Clean Air Act for Steam Boilers [1]. 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 (see Q. 15–16).

Restrictions of the sulphur content of road fuels and fuels for heating purposes have been enacted. Fuel quality standards for domestic heating are regulated at the level of the federal provinces.

From 1980 (reference year) to 2008, SO₂ emissions have dropped by 93 percent.

Question 14: With reference to <u>article 2, paragraph 4,</u> 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;

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(d) Apply BAT not entailing excessive costs, using the guidance in <u>annex IV</u>.

Requirements for the energy efficiency of buildings are, as a part of the building code, within the authority of the federal provinces ("Länder"). The regulations in the building codes of the federal provinces have been tightened throughout the last years. Furthermore subsidies are spent for the construction and rehabilitation of residential buildings, which are coupled to energy efficiency parameters. Subsidies for the replacement of residential boilers and stoves have strong influence on sulphur emissions, as they speed up the displacement of low-efficiency boilers and coal-fired heating systems.

The Austrian Energy Agency and several regional energy agencies have been founded or supported by the federation and federal provinces; their aim is to provide advice for the governments, disseminate information to the public and carry out projects for an efficient and environmentally sustainable use of energy. Energy efficiency measures in the commercial/industrial sector can receive subsidies according to the federal Environmental Support Act.

Increased energy efficiency and increased use of renewable energy sources are key elements of the national strategy for reaching the Kyoto target. Measures to increase share of electricity from renewable sources have been enacted [23]. Subsidies from the federal provinces and many municipalities are granted for the utilisation of renewable energy sources for space heating and hot water supply. Projects for the utilisation of renewable energy for commercial/industrial purposes can also receive subsidies according to the federal Environmental Support Act.

Sector specific emission standards and/or measures related to best available control technology and fuel standards have been stipulated/tightened since the early 1990s. Limits for the sulphur content of fuels have been stipulated for some source categories where no emission limit values apply (see also Q. 17; for steam boilers and industrial boilers < 10 MW_{th}: solid fuels 0.20 g/MJ, liquid fuels 0.60 %; [1, 2]). Differentiated mineral oil tax rates for heating oil (gas oil) with sulphur content greater and less than 10 mg/kg have been introduced in 2008 to promote sulphur free gas oil.

Question 15: With reference to <u>article 2, paragraph 5 (a)</u>, and <u>annex V</u>, 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.

For several categories of new and substantially modified stationary sources emission standards have been set by ordinance, as for steam boilers > 0,35 MW_{th} and other boilers and furnaces [1, 2] (limit values for sources > 50 MW_{th} see table below), and for other industrial plants [3–10]. 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. For other industrial sources individual emission standards and/or measures according to best available technique have to be determined in the licensing procedure for each installation.

Table 7: Question 15

Major stationary	O ₂ %	Emission limit	Desulphurization	National	Comments
combustion source	in flue	value	rate indigenous	legislation	
	gas	$(\text{mg SO}_2/\text{Nm}^3)$	fuels (%)		
1.Solid fuels				[1]	
(a) $50-100 \text{ MW}_{\text{th}}$	6%	200/400			400 for
(b) 100-500 MW _{th} ^{1/}	6%	200/400			brown coal
$(c) > 500 \text{ MW}_{th}$	6%	200/400			
2. Liquid fuels				[1]	
(a) $50-300 \text{ MW}_{\text{th}}$	3%	350			
(b) 300-500 MW _{th}	3%	200			
(c) $> 500 \text{ MW}_{th}$	3%	200			
3. Gaseous fuels			n.a.	[1], 2001/80/EC	
(a) Gaseous fuels in	3%	35		2001/00/20	
general					
(b) Liquified gas	3%	5			
(c) Low calorific	3%	300		[3]	
gases from					
gasification of					
refinery residues,					
coke oven gas, blast					
furnace gas					

1/ If you apply, as an alternative, a desulphurisation rate, the category should be split up into 100-167 and 167-500 MW_{th}.

Question 16: With reference to <u>article 2, paragraph 5 (b), and annex V</u>, 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.

In principle the same requirements on emission control apply to both new and existing sources, see Q. 15. For steam boilers $50-500~\text{MW}_{\text{th}}$ licensed before 1 July 1987, different emission limit values are prescribed [1]; see the table below. Permits for large installations had to be adapted to technical progress according to Council Directive 96/61/EC.

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Table 8: Question 16

Major stationary combustion source relevant age of plant	Carbon dioxide (O ₂₎ in flue gas (%)	Emission limit values (mg SO ₂ /Nm ³)	Desulphu r-ization rate indigeno us fuels (%)	Alternative emission limitations (where appropriate	Nation al legislati on	Comments
1. Solid fuels					[1]	
(a) $50-100 \text{ MW}_{\text{th}}$	6%	1000				
(b) 100-500 MW _{th}	6%	< 150 MW: 1000 150–300 MW: 600/200 > 300 MW: 400/200				600 and 400 are ELVs for
(c) $> 500 \text{ MW}_{th}$	6%	400/200				brown coal
2. Liquid fuels					[1]	
(a) 50-300 MW _{th}	3%	< 150 MW: 1100 > 150 MW: 350				
(b) 300-500 MW _{th}	3%	200				
(c) $> 500 \text{ MW}_{th}$	3%	200				
3. Gaseous fuels			n.a.		[1], 2001/80/ EC	
(a) Gaseous fuels in general	3%	35				
(b) Liquified gas	3%	5				
(c) Low calorific gases from	3%	300			[3]	
gasification of						
refinery residues,						
coke oven gas,						
blast furnace gas						

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

Fuel quality standards regarding sulfur content have been enacted for diesel as well as for gas oil for heating purposes [15–17]. Differentiated mineral oil tax rates for heating oil (gas oil) with sulphur content greater and less than 10 mg/kg have been introduced in 2008 to promote sulphur free gas oil.

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Table 9: Question 17

Туре	Sulphur content (% or ppm)	National legislation	
1. Diesel for on-road vehicles	≤ 10 ppm	[15]	
2. Other types (e.g. diesel for off- road vehicles gas oil for inland navigation, for heating, etc.)	Offroad: 0.1 % for machines / tractors / vehicles which are not registered for road use	[17]	
	Heating: 0.1 % for domestic heating, 0.2 % for other sources	[16]	

V. THE 1998 PROTOCOL ON PERSISTENT ORGANIC POLLUTANTS

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 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.

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.

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

The substances of Annex I and II of the Protocol have been eliminated in Austria. Restrictions and bans had entered into force at national level in the early 1990ies. Nowadays the substances are banned according to Regulation (EC) 850/2004 on persistent organic pollutants. Regulations for the disposal of equipment containing PCBs in an environmentally sound manner are in force. As far as substances of Annex III are concerned, regulations for industrial installations, for mobile sources and for domestic heating have led to a reduction of emissions.

For new or modified industrial installations a permit is required according to the Industrial Code [33] and the Clean Air Act for Steam Boilers [1]. 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 (see Q.27–28).

National emission standards for vehicles have been introduced in the 1980s. These standards have been improved and extended at EU-level, emission standards for off-road mobile sources have been introduced. A tax incentive for cars equipped with particle filters has been introduced. In 2008 a reduced car registration tax rate has been introduced for cars which already conform to the future EURO 6 emission standard.

Emissions from domestic heating are regulated at the level of the federal provinces. Common limit values for the type approval of domestic stoves and boilers have been laid down in an formal agreement between the federal provinces in the 1990ies; an update of that agreement is under preparation.

Exceedances of air quality limit values are the driving force for regional measures to reduce emissions from stationary and mobile sources; the new air quality target value for BaP is also expected to give rise to emission reduction measures. The national strategy for achieving the Kyoto target contains several measures that also contribute to reducing emissions of particulate matter (e.g. reduced energy consumption of buildings, modal shift from road to rail transport, replacement of old domestic stoves and boilers).

Whereas most of the emissions of Annex III substances result from combustion processes, it should be noted that also minor sources have been tackled, which are mainly of local relevance: As it turned out that clay pigeons consist to a significant amount of PAHs, the PAH content of clay pigeons has been limited by ordinance. Further reduction measures are part of the National Action Plan according to the the Stockholm Convention on Persistent Organic Pollutants which has been adopted by the Federal Government in 2008.

From 1987 (reference year) to 2008, emissions of PAHs, Dioxins and HCB have dropped by 70, 79 and 59 percent respectively.

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

Production and use of most substances as plant protection agents have been prohibited by national law since the early 199ies. Regulation (EC) 850/2004 stipulates ban of production, placing on the market and use for all relevant substances.

Table 10: Question 19

Substance	Elimination of	Measures taken (e.g. national legislation)
Aldrin	Production	Banned according to Regulation 2004/850/EC
	Use	Banned according to Regulation 2004/850/EC
Chlordane	Production	Banned according to Regulation 2004/850/EC
	Use	Banned according to Regulation 2004/850/EC
Chlordecone	Production	Banned according to Regulation 2004/850/EC
	Use	Banned according to Regulation 2004/850/EC
DDT	Production	Banned according to Regulation 2004/850/EC
	Use	Banned according to Regulation 2004/850/EC
Dieldrin	Production	Banned according to Regulation 2004/850/EC
	Use	Banned according to Regulation 2004/850/EC

Endrin	Production	Banned according to Regulation 2004/850/EC
	Use	Banned according to Regulation 2004/850/EC
Heptachlor	Production	Banned according to Regulation 2004/850/EC
	Use	Banned according to Regulation 2004/850/EC
Hexabromobiphenyl	Production	Banned according to Regulation 2004/850/EC
	Use	Banned according to Regulation 2004/850/EC
Hexachlorobenzene	Production	Banned according to Regulation 2004/850/EC
	Use	Banned according to Regulation 2004/850/EC
Mirex	Production	Banned according to Regulation 2004/850/EC
	Use	Banned according to Regulation 2004/850/EC
PCBs	Production	Banned according to Regulation 2004/850/EC
	Use	Banned according to Regulation 2004/850/EC; products
		which are already in use may be used further
Toxaphene	Production	Banned according to Regulation 2004/850/EC
	Use	Banned according to Regulation 2004/850/EC

Question 20: With reference to <u>article 3, paragraph 1 (b) (i)</u>, 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).

Destruction of annex I substances is only authorized in incineration plants for hazardous waste. These plants must be constructed and operated according to best available technology; strict emission limit values are applied [18]. Residues of these plants (e.g. fly ash, bed ash) must be exported for disposal according to the Basel Convention and Regulation on the supervision and control of shipments of waste within, into and out of the European Community.

Austria has strict regulations on the handling and transport of hazardous waste (including all substances of annex I) including obligations for bookkeeping and reporting to the authorities [21, 22]. Austria has stipulated regulations for import and export of hazardous waste according to the Basel Convention and the Council Regulation on the supervision and control of shipments of waste within, into and out of the European Community. Regulation (EC) 850/2004, which is directly applicable in all EU member states, also provides for the environmentally sound destruction of these substances.

Question 21: With reference to <u>article 3, paragraph 1 (b) (iii)</u>, 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.

Austria has ratified the Rotterdam Convention on the Prior Informed Consent Procedure for Certain Hazardous Chemicals and Pesticides in International Trade; provisions according to the Rotterdam Convention are in force due to Regulation (EC) 304/2003 of the European Parliament and the Council concerning the export and import of dangerous chemicals. Any export (and import) of waste has to be licensed in line with the Shipment Regulation (EEC) 93/295. A license for the export of substances listed in Annex I would require that domestic treatment is not possible and that treatment in the import country is carried out in an environmentally sound manner.

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

Table 11: Question 22

Substance	Measures taken (e.g. national legislation)
DDT	Production and use banned according to Regulation 2004/850/EC;
	no exemption has been granted in Austria for the production of
	Dicofol
HCH (mixed isomers)	Production and use banned according to Regulation 2004/850/EC;
, ,	restricted use as intermediate in chemical industry was allowed only
	until 31 December 2007
Lindane (HCH gamma	Production and use banned according to Regulation 2004/850/EC;
isomer)	restricted use as public health and veterinary insecticide was
	allowed only until 31 December 2007
PCBs	Production and use banned according to Regulation 2004/850/EC;
	products containing PCBs which were already in use may still be
	used

Question 23: Has your country granted any exemptions in accordance with <u>article 4</u>, <u>paragraph 2</u> of the Protocol?

Yes	No X
168	140 V

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

Question 24: Did your country apply any of the exemptions allowed for in <u>annex I</u>, other than those identified in <u>annex II</u>?

Yes □ No X

If yes, please provide details.

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

The identification of articles still in use and wastes containing substances listed in annex I, II and III to the Protocol is regulated by the Waste Management Act and by ordinances [18, 21, 22]. Electrical equipment containing hazardous substances (including all substances listed in annex I, II and III to the Protocol) have to be labelled; location and amount have to be reported to the ministry for environment. Austria has strict regulations on the handling and transport of hazardous waste (including all substances of annex I, II and III) including obligations for bookkeeping and reporting to the authorities. These articles and wastes have to be destroyed in an environmentally sound manner according to best available technology [20].

Question 26: With reference to <u>article 3, paragraph 5 (b)(i),</u> and <u>annex V</u>, 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.

For new or modified industrial installations a permit is required according to the Industrial Code [33] and the Clean Air Act for Steam Boilers [1]. Specific requirements as emission limit values and/or emission reduction measures according to best available technique have to be laid down during the the individual licensing procedure. The criteria for the determination of BAT are identical with those mentioned in Annex V of the Protocol, part I.

For some categories of (new and existing) stationary emission sources explicit emission limit values for certain kinds of POPs and/or BAT requirements have been set by ordinance, i.e:

- for new sinter plants ELV of 0.4 ng TE/m³ and for the production of iron and steel in general 0.1 ng TE/m³ [3], [4];
- for aluminium production (new plants: 0.1 ng TE/m³, existing plants: 0.4 ng TE/m³), for lead and copper production: 0.4 ng TE/m³, for production of ferro-alloys: 0.1 ng TE/m³ [5];
- for co-firing of waste an ELV of 0.1 ng TE/m³ [18];
- for residential combustion only stoves and boilers with type approval may be installed, limit values (PM, CO, HC) for the type approval have been enacted, only regular fuels may be used and combustion of waste materials is prohibited;
- creosote and other coal tar destillates may only be used if their BaP content is below 0.005 %, may only be used by professionals and must not be sold to private persons; wood treated with creosote may only be used for business/industrial purposes [31].

For several source categories limit values for particulate matter (see also Q.34), CO and/or HC have been set. 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.

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

Major new stationary	Limit values for PCDD/F	Other emission reduction		
sources	(in ng TE/m³, based on 11%	strategies		
	oxygen in flue gas)	(if applicable)		
A. Municipal solid	0.1 ng TE/m ³ , 8 hour mean value			
waste				
(>3 tons/hour)				
B. Medical solid waste	0.1 ng TE/m ³ , 8 hour mean value			
(>1 ton/hour)				
C. Hazardous waste	0.1 ng TE/m³ , 8 hour mean value			
(>1 ton/hour)				

Question 28**: With reference to <u>article 3</u>, <u>paragraph 5 (b)(iii)</u>, and <u>annex V</u>, 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.

According to Directive 96/61/EC, existing major industrial sources had to be adapted to current BAT standards until 31 October 2007 at the latest. The provision has been transposed into national law in the relavant instruments, e. g. in the Industrial Code, the Emissions Protection Act for Steam Boilers etc. For some categories of stationary emission sources as waste incineration plants explicit emission limit values for certain kinds of POPs and BAT requirements have been set by ordinance (see. Q. 26); usually the same requirements on emission limit values apply to both new and existing industrial installations, transition periods of some years are granted for existing installations. In general, existing stationary sources apply a combination of available technologies (primary and secondary measures) to comply with the emission standards.

Question 29**: With reference to <u>article 3, paragraph 5(b)(iv)</u>, and <u>annex IV</u>, 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.

^{**} Not mandatory. The obligation will become effective after 23 October 2011.

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Table 13: Question 29

Major existing stationary sources	Limit values for PCDD/F (in ng TE/m³, based on 11%	Other emission reduction strategies (if applicable)
	oxygen in flue gas)	
A. Municipal solid	0.1 ng TE/m³ , 8 hour mean value	
waste		
(>3 tons/hour)		
B. Medical solid waste	0.1 ng TE/m ³ , 8 hour mean value	
(>1 ton/hour)		
C. Hazardous waste	0.1 ng TE/m ³ , 8 hour mean value	
(>1 ton/hour)		

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

Emissions of mobile sources are regulated according to the respective EU directives. Emission standards shown in Table 3 are currently in force. (Past and future standards are not listed.)

Table 14: Question 30

Mobile source categories for POPs	Measures (e.g. limit values ^{1/} , national legislation, guidance)
A. Diesel-fuelled passenger cars	HC + NO _x : 0.30 g/km, Particulates: 0.025 g/km [11]
B. Heavy duty vehicles	HC: 0.46 g/kWh, Particulates: 0.02 g/kWh (ESC) [11]
C. Off-road engines	HC + NO _x : 4.0–7.5 g/kWh,
	Particulates: 0.2-0.6 g/kWh [12]

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.

Question 31: With reference to <u>article 3, paragraph 8</u>, 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.

The substances listed in Table 15 have neither been produced nor sold in Austria in the past few years. Only lindane may have been used as a public health and veterinary insecticide until 2007; information about sales is not available.

Table 15: Question 31

Substance	Production	Sales
	(quantity per year)	(quantity per year)
Aldrin		
Chlordane		
Chlordecone		
DDT		
Dieldrin		
Endrin		
Heptachlor		
Hexabromobiphenyl		
Hexachlorobenzene		
Mirex		
PCBs		
Toxaphene		
НСН		

VI. THE 1998 PROTOCOL ON HEAVY METALS

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.

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.

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

For new or modified industrial installations a permit is required according to the Industrial Code [33] and the Clean Air Act for Steam Boilers [1]. 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 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).

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 ressources and raw materials is one of the targets of the Austrian Waste Management act.

From 1985 (reference year) to 2008, emissions of Cd, Pb and Hg have dropped by 63, 96 and 73 percent respectively.

Question 33: With reference to <u>article 3</u>, <u>paragraph 2</u> (a), and <u>annex III</u>, 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.

For new or modified industrial installations a permit is required according to the Industrial Code [33] and the Clean Air Act for Steam Boilers [1]. Specific requirements as emission limit values and/or emission reduction measures according to best available technique have to be laid down during the the individual licensing procedure. The criteria for the determination of BAT are identical with those mentioned in Annex III of the Protocol, part I. 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.

Question 34: With reference to <u>article 3, paragraph 2 (b), annex II</u> and <u>annex V</u>, 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.

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.

Table 16: Question 34

Category annex II	New stationary sources	Pollutant	ELV ² (in mg/ m ³)	% O ₂ in flue gas	National legislation	Altern ative strategi es ^{3/}
1	Combustion of solid and liquid fuels	PM	solid : 50 liquid : 30–35	6% 3%	[1], [2]	
	Sinter plants	PM	50	n.a	[4]	
2	Pellet plants:		There are no pellet plants in Austria.	n.a.	(Limit values according to BAT would have to be prescribed in the licensing procedure.)	
	(a) grinding, drying	PM				
	(b) pelletizing	PM				
	or: (c) total plant emissions 1/	PM				

² Emission limit value.

	Blast furnaces	PM	20	n.a	[3]	
3	Electric arc		_	n.a	[3]	
	furnaces	PM	5			
	Production of		5		[5]	
	copper and zinc	PM		n.a		
5 and 6	(incl. Imperial					
	Smelting furnaces)					
	Production of lead	PM	5	n.a	[5]	
7	Cement industry	PM	30 half hour /	n.a	[9]	
		D1	20 daily mean	0/40.0/	[40]	
8	Glass industry	Pb	5	8/13 %	[10]	
9	Chlor-alkali plants	Hg	Mercury cell	n.a		
	(mercury cell		process not used any longer			
	process) ^{2/}		in Austria			
	Hazardous waste	PM	10	11 %	[18]	
	incineration	Hg	0.05	11 %		
10 and 11	Medical waste	PM	10	11 %	[18]	
	incineration					
	Municipal waste	PM	10	11 %	[18]	
	incineration	Hg	0.05	11 %		

^{1/} Specify limit value in g/Mg pellets produced.

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

According to Directive 96/61/EC, existing major industrial sources had to be adapted to current BAT standards until 31 October 2007 at the latest. The provision has been transposed into national law in the relavant instruments, e. g. in the Industrial Code, the Emissions Protection Act for Steam Boilers etc. For some categories of stationary emission sources as waste incineration plants explicit emission limit values for certain kinds of POPs and BAT requirements have been set by ordinance (see. Q. 26); usually the same requirements on emission limit values apply to both new and existing industrial installations, transition periods of some years are granted for existing installations. In general, existing stationary sources apply a combination of available technologies (primary and secondary measures) to comply with the emission standards.

Question 36**: With reference to <u>article 3</u>, <u>paragraph 2 (d)</u>, and <u>annex IV</u>, please provide information on progress made towards applying limit values to each existing stationary source

^{2/} Specify limit value in g Hg/Mg Cl₂ production capacity.

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

^{**} 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, 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/ m³)	% O ₂ in flue gas	National legislation	Alterna tive strategi es ^{3/}
1	1. Combustion of solid and liquid fuels	PM ³	solid : 50 liquid : 30–35	6% 3%	[1], [2]	
	2. Sinter plants	PM	50	n.a	[4]	-
2	3. Pellet plants:		There are no pellet plants in Austria.	n.a.	(Limit values according to BAT would have to be prescribed in the licensing procedure.)	
	(a) grinding, drying	PM			,	
	(b) pelletizing	PM				
	or: (c) total plant emissions 1/	PM				
	4. Blast furnaces	PM	10–20	n.a	[3]	
3	5. Electric arc furnaces	PM	5–10	n.a	[3]	
5 and 6	6. Production of copper and zinc (incl. Imperial Smelting furnaces)	PM	20	n.a	[5]	
	7. Production of lead	PM	10	n.a	[5]	
7	8. Cement industry	PM	30 half hour / 20 daily mean	n.a	[9]	
8	9. Glass industry	Pb	5	8/13 %	[10]	
9	10. Chlor-alkali plants (mercury cell process) 2/	Hg	Mercury cell process not used any longer in Austria	n.a		
	11. Hazardous waste	PM	10	11 %	[18]	1
	incineration	Hg	0.05	11 %		
10 and 11	12. Medical waste incineration	PM	10	11 %	[18]	
	13. Municipal waste incineration	PM Hg	10 0.05	11 % 11 %	[18]	

^{1/} Specify limit value in g/Mg pellets produced

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

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

³ Particulate matter.

Question 37: With reference to <u>article 3, paragraph 3</u> and <u>annex VI, paras. 1 to 4</u>, please describe the product control measures being applied to marketed petrol in accordance with the conditions and timescales specified in <u>annex VI</u>. 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.

The lead content of petrol must not exceed 0.005 g/l. Leaded petrol is completely banned since 1993.

Question 38***: With reference to <u>article 3, paragraph 3,</u> and <u>annex VI, paragraph 5</u>, please describe the measures applied to limit the mercury content in batteries, in accordance with the conditions and timescales specified in <u>annex VI</u>. 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	0.0005 %	[28]
prolonged use (except button cells)		
2. Other alkaline manganese batteries	0.0005 %	[28]
(except button cells)		

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^{**} Not mandatory. The obligation will become effective after 29 December 2008.

References to the Austrian legislation

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