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

THE 2000 REVIEW ON STRATEGIES AND POLICIES
FOR AIR POLLUTION ABATEMENT

LEGISLATION AND REGULATORY FRAMEWORK

REPLIES TO QUESTIONS 52 - 53 OF THE 2000 QUESTIONNAIRE

Prepared by the secretariat from submissions by the Parties

Introduction

1. This document is the basis for part of the 2000 Review of Policies and Strategies requested by the Executive Body at its seventeenth session in December 1999. It provides the answers as received from Parties in response to the questionnaire circulated in January 2000. It is in English only, non-English submissions were passed to the UN translation services, and are incorporated as translated. Answers have been reformatted for the document but have been subjected to minimal editing. Indication is given where responses have been altered, e.g. moved where an answer appears to be for a different question.

2. The document is intended as a reference for the summary to be found in the 2000 Review of Strategies and Policies (EB.AIR/2000/1/Add.3) and will be provided to the Executive Body, the Implementation Committee and will be made available through the Executive Body document Web site. The document is one section of the questionnaire.

3. This section summarizes the answers received to questions 52 to 53 of the questionnaire. The questions in this section are of a general nature and optional. Their purpose is to provide further information that will enable the secretariat to analyse the current situation regarding air pollution abatement in the region, and provide information that the Executive Body would like the Parties to the Convention to share to identify air pollution abatement. Parties may wish to recall that under article 4 of the Convention they have committed to exchanging information on their policies aimed at abating air pollution.

4. **Q.52 Parties may wish to report on regulatory measures other than those mentioned in sections 1 to 6. Provide a short description of your legislative and regulatory framework, including specific regulatory measures to:**

- **Control and reduce emissions of sulphur, nitrogen oxides and VOC;**
- **Control and reduce emissions of heavy metals listed in annex I to the Protocol on Heavy Metals; and**
- **Reduce the generation and emissions of the persistent organic pollutants covered by the Protocol on POPs.**

Parties should include information on existing product regulations that have resulted in air pollution reductions. They should also report on relevant legislation under preparation. In responding to this question, please refer to the relevant responses in sections 1 to 6 above.

5. **Armenia**. By its resolution of 22 April 1999, the Government of the Republic of Armenia ratified a new provision on the State stocktaking of harmful effects on atmospheric air. By another resolution, of 30 March 1999, the Government established a new, improved procedure for regulating atmospheric emissions for enterprises and for the granting of permits for such emissions within existing environmental limits. Under this new procedure, provision was made, for the first time, for the territorial regulation of atmospheric emissions of harmful substances. By its resolution, of 30 March 1999, the Government established threshold values for planned activities (construction, renovation, demolition) which are subject to environmental and human health impact assessments. Application of these threshold values will make possible a more precise determination of the categories of large point sources of atmospheric emissions of harmful substances in the various production areas.

6. **Austria**. Environmental protection as a general objective is embedded in the Federal Constitutional Law. The main legislative and regulatory provisions concerning air pollution abatement can be found in some 12 laws at the federal level and some additional regulations at the provincial level. Reduction of emissions is based on the precautionary principle. The precautionary reduction of emissions is achieved by enforcing emission standards based on the best available technology. The Ambient Air Quality Law provides effect-based ambient air limit values for a number of pollutants, including sulphur dioxide, particulates, nitrogen dioxide, ozone and lead as well as deposition limit values for particulate matter, lead and cadmium. In areas where limit values are exceeded, reduction plans comprising all relevant sectors have to be established. The law also provides the basis for a comprehensive monitoring network. The regulatory measures specific to the substances covered by the convention and its protocols are described in detail in sections 1 to 6.

7. **Belarus**. It is suggested that use be made of the information in EB.AIR/1998/3 (p. 26, para. 91).

8. **Belgium**. Flemish region**:** The main principle of the Flemish environmental legislation "Vlarem II" is to achieve a high level of environmental protection by limitation and/or prevention of air pollution. The best techniques available must be applied not only to keep the mass flow of pollutant as low as possible, but also to restrict concentrations of polluting substances as much as possible. The general emission limit values always apply unless other stipulations apply for certain establishment categories according to "Vlarem II" (sectorial emission limiting values for specific equipment). The emission limit values apply to stack emissions and they must be interpreted in the circumstances listed below:

(a) in normal conditions, i.e. at O° C (273 K) and 1013.25 hPa;
(b) for dry gas, meaning after subtracting the water content;
(c) possible dilution air cannot be taken into account.

9. Air quality standards are expressed as limit value or target value (mainly EU standards). Emission standards are always expressed in a concentration form. In many cases, a limiting condition applies for a concentration only from a certain massa threshold value on (emission load). In other words, no emission concentration limit applies below this (threshold value for the)

massa. This standardization method was derived from TA-Luft. Emission limit values for the different pollutants are given in the answers to the specific questions of the Protocols. The standards and transition periods for emission limit values, for SO_2, VOC, NOx,, heavy metals and POPs are given in the answers of the questions in the respective protocols.

10. Brussels capital region: See the list of Brussels air legislation in the annex.

11. **Bulgaria**. Legislation and Regulatory Framework:

(a) Clean Air Act (SG 45/96, am. SG 85/97, am/ SG 27/00);
(b) Regulation 14 of 23rd September 1997 on the maximum permissible concentrations of harmful substances in urban air (SG 88/97);
(c) Regulation 1 of 13th February 1998 on the terms and conditions for adopting temporary air pollution emission limit values from existing stationary sources (SG 51/98);
(d) Regulation 2 of 19th February 1998 on adopting emission limit values (flue gas concentrations) for pollutants from stationary sources;
(e) Regulation 3 of 25th February 1998 on the terms and conditions for adopting temporary emission limit values for pollutants from existing stationary sources, related to the national combustion and energy balance (SG 51/98);
(f) Regulation 7 of 1999 of the Ministry of Environment and Water and the Ministry of Public Health on Air Quality assessment and management (SG 45/99); (Directive 96/62/EC);
(g) Regulation 8 of 1999 of the Ministry of Environment and Water and the Ministry of Public Health on ground-level ozone standards (SG 46/99); (Directive 92/72/EC);
(h) Regulation 9 of 1999 of the Ministry of Environment and Water and the Ministry of Public Health on emission limit values for sulphur dioxide, nitrogen dioxide, particulate matter and lead (SG 46/99); (Directive 99/30/EC);
(i) Regulation 6 of 1999 of the Ministry of Environment and Water on the terms and conditions for measuring emissions of pollutants from stationary sources (SG 31/99);
(j) Regulation 15 of 1999 of the Environment, Industry, Regional Development and Health Ministries on emission limit values (flue gas concentrations) of sulphur dioxide, nitrogen dioxide and particulate matter, emitted in the air by major new stationary combustion sources (SG 73/99); (Directive 88/609/EEC);
(k) Regulation 16 of 1999 of the Environment, Industry, Regional Development and Health Ministries on the reduction of volatile organic compounds emissions from petrol transportation, storage, loading and unloading operations (SG 75/99); (Directive 94/63/EC);
(l) Regulation 17 of 1999 of the Ministry of Environment and Water and the Ministry of Public Health on standards for the content of lead, sulphur and other environmentally hazardous substances in fuels (SG 97/99); (Directives 9/32/EC and 98/70/EC);
(m) Regulation on industrial and hazardous waste handling and transportation (SG 25/99); (Directive 94/67/EC);
(n) Regulation 11 on the conditions for erecting and operating facilities for household wastes decontamination (SG 10/99); (Directive 89/369/EEC);
(o) Decree of the Council of Ministers 12/99 on the regimen for placement of hazardous substances (SG 4/99);
(p) Decree of the Council of Ministers 254/99 on the control and management of substances, that deplete the ozone layer (SG 3/00);
(q) Regulation 5/98 on the issuing of permits for import, export and transit of hazardous waste (SG 120/98);

(r) Regulation 4 on the environmental impact assessment procedures (SG 84/98);
(s) Regulation 32 on periodical technical checks up of vehicles (SG 74/99).
The specific regulatory measures are given in the answers to Sections 1 to 6.

12. **Canada**. The federal and provincial governments share responsibility for addressing air quality problems and for implementing air pollution control programs. Emission requirements for most industrial sources are set and enforced provincially, although the federal government may develop or contribute to the development of national guidelines, objectives, or codes of practice which individual provinces may adopt. The Canadian Council of Ministers of the Environment (CCME) is a major forum for the national integration of environmental policies, programs, standards etc. In addition to the development of guidelines, objectives and codes of practice, the federal government has jurisdiction in the areas of mobile sources (fuel and emission standards), toxics, research and monitoring, and international air pollution. With regards to VOCs, in addition to what has already been described in section 3, there are additional guidelines, codes of practice or standards (for VOC content) being developed for surface coating of auto parts and maintenance coating.

13. **Croatia**. See Question 50

The follow regulation is under preparation:
(a) By-Law on National Network for Air Quality Monitoring;
(b) By-Law on the Methodology of Measuring Pollutant Emissions from Stationary Sources into the Air Rule Book on the Air Quality Measurement Programme

14. **Cyprus**. The Law on the Control of Atmospheric Pollution No. 70/91 and Regulations issued under it constitute the legislative and regulatory framework related to air pollution abatement. The above Law provides for a licensing system for those processes prescribed by Regulations as "Registrable", through which emission limits and other restrictions as well as technical requirements for emission abatement equipment may be imposed. Emission limits for the Registrable Processes are prescribed on each License. For the non-Registrable Processes, SO_2 emission limits are directly proportional to the sulphur content of fuel used. The NO_x emission limit for new large power plants is 450 mg/Nm^3 and for existing 600 mg/Nm^3. The emission limit for VOCs for registrable processes are 50 mgC / Nm^3. The regulation of the POP´s Aldrin, Dieldrin, DDT, Chlordecone Endrin, Chlordane, Hexachhlorobenzene, Mirex, Toxaphene, Hexachlorocyclohexane, Heptachlor, PCB´s , by prohibiting their import and use has as a result air pollution reduction.

15. **Czech Republic**. Current legislation on the air:

(a) Law No. 309/1991 Coll., on protection of the air against pollutants (the Clean Air Law), as amended;
(b) Czech National Council Law No. 389/1991 Coll., on state administration of air protection and payments for air pollution, as amended;
(c) Law No. 86/1995 Coll., on protection of the ozone layer of the Earth;
(d) Decree 117/1997 Coll., laying down emission limits and other conditions for the operation of stationary pollution sources and air protection;
(e) Decrees for implementation of some of the provisions of the Law on protection of the ozone layer of the Earth that lay down for a limited period of time the amounts of substances that

cause or could cause depletion of the ozone layer of the Earth and that may be produced, imported or exported for production, consumption or further export;

(f) Annex No. 4 of the Measure of the Federal Committee for the Environment, in which the binding imission limits for pollutants are laid down;

(g) Act No. 38/1995 Coll., on technical requirements for operation of vehicles on roads and Decree No. 244/1999 Coll;

(h) Legislation under preparation:

(i) The new Law on protection of the air and protection of the ozone layer of the Earth;

(j) the new Law on integrated pollution prevention and control;

(k) the Draft Law on management of energy;

(l) draft regulations for implementation of these Laws;

(m) the draft regulation for implementation of the Draft Law on technical conditions for traffic on roadways;

(n) draft amendment to Decree 117/1997 Coll., laying down emission limits and other conditions for the operation of stationary pollution sources and air protection;

(o) the draft new Act on technical requirements for operation of vehicles on roads and implementing Decree (prepared by the Ministry of Industry and Trade).

The legislation being prepared will cover the requirements of the adopted protocols.

16. The current management system, if understood to consist in the work of the administrative authorities, is set forth in detail in Law No. 389/1991 Coll., on state administration of air protection and payments for air pollution. Simultaneously, the Ministry of the Environment carries out supreme state supervision in accord with Law No. 2/1969 Coll., on establishing the Ministries and other central bodies of the state administration of the Czech Republic, as amended, in which it controls how the pertinent bodies and organizations comply with the legal regulations and decisions issued pursuant to them and issue standpoints and methodical instructions, explaining in detail some of the provisions of the Law and regulations for implementation. Simultaneously, the obligations set forth in the legal regulations on air protection are controlled. In addition to supreme state supervision, the Czech Environmental Inspection is active in the area of air protection as a supervisory body and some of the obligations following from the Law are also controlled by the District Authorities and municipalities.

17. Legislative provision for compliance with protocols: Practical implementation of the protocol on decreasing emissions of nitrogen oxides and their transboundary fluxes is currently provided for in the legislation by Law No. 309/1991 Coll., on protection of the air against pollutants, as amended, and implementing Decree 117/1997 Coll., laying down emission limits and other conditions for the operation of stationary pollution sources and air protection. At the latest by January 1, 1999, all the operators of large and medium-sized air pollution sources were obliged to comply with the emission limits laid down in Decree No. 117/1997 Coll., replacing the emission limits laid down for the previous period by the air protection administrative authority. The Decree came into effect on June 1, 1997. It should be pointed out that the current legislation (Law No. 309/1991 Coll. in the valid wording) contains three categories of sources,, the category of large air pollution sources (larger than 5 MW thermal output), the category of medium-sized air pollution sources (from 0.2 MW to 5 MW thermal output) and the category of small air pollution sources (less than 0.2 MW thermal output). Full legislative compliance with this protocol will be achieved after passing of the new Law on air protection and protection of the ozone layer of the Earth, including the regulations for implementation, which is expected by November 1, 2001.

18. The Protocol to the Convention on Long-Range Transboundary Air Pollution, on decreasing emissions of volatile organic compounds and their transboundary fluxes is only partly incorporated into the Czech legislation, in Decree 117/1997 Coll., laying down emission limits and other conditions for the operation of stationary pollution sources and air protection and the draft amendments to this Decree, which are expected to come into effect from May 1, 2000. The current legislation deals primarily with requirements on processing, storage and handling of petroleum products and the area of paint shops in the category of consumption of coatings of greater than 5 kg per day up to a total consumption of 10 t p.a. (medium-sized pollution sources) and with an annual consumption of coatings greater than 10 t (large pollution sources). Annex No. 1 of the amendment to the Decree supplements the list of pollutants to include volatile organic compounds (VOCs) and Annex No. 3 extends the generally valid emission limits to include emission limits for volatile organic compounds. Full transposition will bethe draft amendments to this Decree, which are expected to come into effect from May 1, 2000. The current legislation deals primarily with requirements on processing, storage and handling of petroleum products and the area of paint shops in the category of consumption of coatings of greater than 5 kg per day up to a total consumption of 10 t p.a. (medium-sized pollution sources) and with an annual consumption of coatings greater than 10 t (large pollution sources). Annex No. 1 of the amendment to the Decree supplements the list of pollutants to include volatile organic compounds (VOCs) and Annex No. 3 extends the generally valid emission limits to include emission limits for volatile organic compounds. Full transposition will be achieved through approval of the new Law on air protection and protection of the ozone layer of the Earth. The new legislation is expected to come into effect from November 1, 2001.

19. The Protocol to the Convention on Long-Range Transboundary Air Pollution of 1979, on a further decrease in sulfur emissions, is only partly incorporated into the legislation through Decree 117/1997 Coll., implementing Law No. 309/1991 Coll., as amended. This Decree lays down the national emission limits for sulfur dioxide for selected large and medium-sized pollution sources that contribute most towards air pollution and for other pollution sources (generally valid emission limits), including conditions for determining the amount of emissions. Simultaneously, this Decree lays down requirements on the quality of fuel supplied for ombustion in small pollution sources and to the population. These requirements are laid down in the indicators "specific sulfur contents of fuels". Compliance with all the requirements of the Protocol will be achieved through the passing of the new Law on air protection and protection of the ozone layer of the Earth, the Law on integrated pollution prevention and control, and the pertinent Decrees for implementation, including the Decree of the Ministry of Industry and Trade to the Draft Law on the technical conditions for traffic on roadways, laying down the contents of sulfur in liquid fuels.

20. Law No. 309/1991 Coll., on protection of the air against pollutants (the Clean Air Law), as amended, and implementing Decree 117/1997 Coll., including the prepared amendment, will provide to a considerable degree for the requirements of the Protocol on heavy metals.

21. Full provision through suitable legislation will be achieved when the new Law on air protection and protection of the ozone layer of the Earth and the pertinent regulations for implementation are passed and when the new Law on integrated pollution prevention and control is passed, which are expected to come into effect by November 1, 2001 (air) and January 1, 2003 (IPPC).

22. **Denmark**. The long-term objective of national air pollution abatement is to limit air pollution to minimize damaging effect on Man, ecosystems and nature areas. The Environmental Protection Act provides the basis for regulations to safeguard the environment. The regulatory instruments established by this Act are: (a) the power of environmental authorities to assess polluting activities with a view to giving or refusing approval, or setting certain requirements; and (b) the power of the Minister of the Environment to lay down emission limitations and production standards. The main instrument for licensing is the Environmental Protection Act, cf. Order No. 625 of 15 July, 1997. The Environmental Protection Act lists the activities, which need a license to operate. All procedures in licensing operation are fully public. Decisions under the Act shall take place by public announcement. When the license is granted the time limit for lodging a complaint is four weeks from the day the decision was announced. The license represents an unreserved right to operate and, in accordance with given restrictions, discharge pollutants to water and emit pollutants into the air. The conditions are valid for at least eight years, but the permit itself is not restricted in time. For all potential polluting activities the supervisory authorities issue monitoring programs for emissions that have to be carried out and paid for by the owners of the polluting installations. Reporting to supervisory authority usually takes place yearly. The concept of best available technology (BAT) is explicit stated in the permits in order to meet the emission standards.

23. The EC Regulation concerning Eco Management and Audit Scheme (EMAS) was implemented by statutory order in 1994. An experimental scheme for non-industrial sectors was introduced in 1997 on a trial basis. Under the experimental scheme public activities, agriculture/horticulture, forestry maintenance and repair of motor vehicles, hotels and restaurants, transport and laundry/dry-cleaners can apply. 141 sites have been registered under the EMAS and 8 sites under the experimental scheme. Up to 1996 most companies were registered under BS 7750, which has now been replaced by ISO 14001. In June 2000 the total number of enterprises with an accredited environmental management system was approximately 450.

24. **Germany**. The basic principles guiding the national policy for abatement of air pollution are laid down in particular in the Federal Immission Control Act (BImSchG) of 15 March 1974. The purpose of this Act is to protect human beings, animals and plants, soil, water, the atmosphere as well as cultural assets and other material goods against harmful environmental impacts and to take precautions against the emergence of any such harmful environmental impacts. This legal mandate to protect and take precautions is responded to by the Federal Immission Control Act primarily by limiting immissions in accordance with scientific knowledge and by limiting emissions at source in accordance with the state of the art.

25. **Greece**. Sulphur dioxide emissions are controlled by application of the national legislation that (a) limits the sulphur content of fuel oil for consumption in Athens (maximum 0.7%) and (b) prohibits the use of fuel oil for heating (see R.18).

26. **Italy**. All the Italian regulatory measures to reduce air pollutants covered by Protocols have been reported in sections 1 to 4. The regulation framework for air pollution is based on the Clean Air Law of 1966, together with its associated regulations. The principal regulations for air pollution are related to air quality standards, emission limit values for industrial and craft activities, fuel quality standards. Presently, application of European Community Directives represents one of the most important part of Italian regulatory framework.

27. **Latvia**: Control and reduce emissions of sulphur, nitrogen oxides and VOC.
The Division of Laboratory of the Environmental Data Centre of Latvia provides the quality of emission control data according to the requirements of international standards for emission measurements of major stationary sources of pollution:

(a) LVS ISO 7934: 1989 Stationary source emissions B Determination of mass concentration of sulphur dioxide B Method of hydrogen peroxide/barium perchlorate/ thorin;

(b) ISO 11632:1998 Stationary source emissions B Determination of mass concentration of sulfur dioxide B Ion chromatography method;

(c) PrEN 1911 Stationary source emissions B Manual method of determination of HCl;

(d) (d) US EPA METHOD TO1: 1984 Method for the determination of volatile organic compounds in ambient air using TENAX absorption and gas chromatography/mass spectrometry (GC/MS);

(e) (e) US EPA METHOD TO5: 1984 Method for the determination of aldehydes and ketones compounds in ambient air using high performance liqiud chromatography (HPLC);

(f) (f) US EPA METHOD TO11: 1987 Method for the determination of formaldehyde in ambient air using adsorbent cartridge followed by high performance liquid chromatography (HPLC);

(g) VDI 3482/Blatt 4: 1984 Measurement of gaseous Immisions B Gaschromatographic determination of organic compounds using capillary columns B Sampling by enrichment on activated carbon B Desorption with solvent;

(h) US EPA METHOD 8315A:1996 Determination of carbonyl compounds by high performance liqiud chromatography (HPLC);

(i) US EPA TO17: Determination of volatile organic compounds in ambient air using active sampling on to sorbent tubes.

28. **Poland**. The Act on the protection and management of the environment is a fundamental act of a framework nature dealing with environmental issues, being a legal basis for the implementation of measures for air protection. Until now it has been amended and modified many times. Among its numerous executive acts that are still in force, the following regulations are of major significance to air protection:

(a) On limit values for ambient air concentrations of pollutants (ambient air quality standards) (1998);

(b) on air emission standards from technological processes and technical operations (containing only emission standards for fuel combustion sources) (1998);

(c) on fees for emissions of pollutants into the atmosphere (updated every year);

(d) on inventories and registers of lists of air pollutants (1998);

(e) on procedures for setting restriction limits for certain types of pollutants and their amounts as well as documentation requirements for issuing air emission permits covering the types and amounts of pollutants (1998).

29. At present a new set of legal acts with some accompanying executive regulations are in the preparatory phase (some very much advanced submitted to the Parliament). The following ones are of major interest as far as the protocols to the Convention are concerned:

(a) Act on environmental protection;

(b) new Act on waste;

(c) Act on packaging and packaging waste;

(d) Act on product charges and deposit fees;

(e) Act on the increase of energy use from renewable sources.

Regulations introducing emission limit values for major stationary sources are under preparation (see Q.31).

30. **Republic of Moldova.** The general objective of protection of environment in our republic is defined by the Constitution of the Republic of Moldova (art. 37, art. 46, art. 59 and etc.). For example: Art. 37 (1) requires that: " Each person has a right for the ecologically safe environment as well as for safe food and other goods for house use". Art. 37 (2) requires that: " The country guarantees for each person the right for free access to environmental information, conditions of life and labor, quality of food and goods of house use and for distribution of this information".

31. The main activities for atmospheric air pollution prevention are included in the range of laws, prepared and entered in force after the Republic of Moldova became independent. The following legislative acts were developed and introduced:

(a) Law on Protection of Environment (nr.1515 from 16.06.1993);

(b) Law on Air Protection (nr.1422-XIII from 17.12.1997);

(c) Law on Ecological Expertise and Environmental Impact Assessment (nr.851 from 29.05.1996);

(d) Law on the Payment for Environmental Pollution (nr.1540 - XIII from 25.02.1998);

(e) Law on Sanitary-Epidemiological Protection of the Population (nr.1514-XII from 16.06.1993), - and other legislative and sub-legislative acts.

(f) Law on Hydrometeorological Activity (nr.1536 – XIII from 25.02.1998).

32. The main activities for management of toxic chemical substances, products and wastes included in the range of laws, prepared and entered in force after the Republic of Moldova became independent. The following legislative acts were developed and introduced:

(a) Law on Regime on Harmful Products and Substances;

(b) The Law on Licensing Certain Tips of Activities;

(c) Law on Wastes of Production and Consumption.

33. In the National Strategic Action Plan for Environmental Protection, approved by the Decree of the President of the Republic of Moldova in 1995 and National Action Plan on Environmental Protection, approved by the Decision of the Government in 1996 the principle "Polluter pays" was included. Realization of this principle was established in new legislative and normative acts:

(a) Law on Change and Adding to the Law on Protection of Environment (nr.1539 – XIII from 25.02.1998);

(b) Law on the Payment for Environmental Pollution (nr.1540 - XIII from 25.02.1998);

(c) Regulation on Ecological Fund (nr.988 from 21.09.1998).

34. The main goal of the Law on the Payment for Environmental Pollution was implementation of the principle "Polluter pays" and stimulation of industrial enterprises in the process of restructuring and privatization. It was made for the implementation of the most economic installations with minimum impact on the environment, and also resources collection for formation of ecological funds for financing of environmental projects. Also, strategic

directions of environmental protection, including atmospheric air were included in the following documents:

(a) National Programme on ïîñòåïåíîå submission of substances depleting ozone layer in Republic of Moldova, approved by Decision of the Government of the Republic of Moldova (nr.1064 from 11.11.1999);

(b) Environmental Performance Review. The ECE Committee on Environmental Policy and the ECE review team wish the Moldavian environmental managers success in implementing and following up the policy recommendations that are included in this review.

35. Presently the following documents are under development:

(a) National Strategy on Sustainable Development "Moldova 21";

(b) First National Communication in the framework of UNDP project "Enabling Moldova to prepare its first National Communication in response to its commitments to the UN FCCC". Chapter "Diminishing of greenhouse gases" is included in this communication, where the measures for reduction of priority greenhouse gases and other gases such as NOx, NMVOCs, CO etc. were developed. Also, presently in the framework of mentioned UNDP project is under development chapter National Plan of Activities of reduction of greenhouse gases;

(c) Law on Energy Conservation;

(d) Programme for emissions reduction from mobile sources. According to this Programme a range of measures for reduction of toxic emissions into air is foreseen:

(i) Total exclusion of use of leaded petrol;
(ii) Supplying the auto vehicles with neutralizers and catalysts;
(iii) Reduction of sulphur in fuel;
(iv) Enhance the usage of gaseous fuel for transport.

This program is under development and in the nearest future will be presented in the Government of the Republic of Moldova.

(e) New Concept of Environmental Policy of the Republic of Moldova. One of the points of this concept is pollution prevention and improvement of the environment, including atmospheric air;

(f) National Programme on Production and Municipal Wastes Management.

36. Actually proposals to introduce modifications in the Law on payment for environmental pollution are under development and their goal is stipulation of payment provisions for some goods that have environmental impact. List of goods that are supposed to be regulated by some economic instruments will include the following:

(a) .Substances depleting ozone layer and products containing those substances. Plastic packaging including PVC;
(b) .Heavy fuel oil medium-sulphur and high-sulphur;
(c) .Luminescent lamps;
(d) .Pesticides;
(e) .Cigarettes;
(f) .Auto vehicles accumulators;
(g) .Detergents;
(h) .Mineral oils;
(i) .Naphtaline and other products.

37. In conformity with mentioned legislative acts and other sub-legislative acts the criteria applied to ambient air quality are public health standards: limit permissible concentrations (LPCs)

and indicative safe exposure levels of pollutants in the air in population settlements. LPC levels in ambient air are normally set in mg/m3. Indicative safe exposure levels are liable to be made stricter or replaced by LPC on the basis of toxicological and public health information. These levels are valid for three years.

38. **Sweden**. Regulatory measures other than reported above. A new Swedish environmental code has been decided by the Parliament. The rules contained within 15 acts have been amalgamated in the Environmental Code. The acts are:

(a) The Natural Resources Act;
(b) the Nature Conservancy Act;
(c) the Flora and Fauna (Measures Relating to Protected Species) Act;
(d) the Environmental Protection Act;
(e) the Health Protection Act;
(f) the Water Act;
(g) the Agricultural Land Management Act;
(h) the Genetically Modified Organisms Act;
(i) the Chemical Products Act;
(j) the Biological Pesticides (Advanced Testing);
(k) the Pesticides (Spreading over Forest Land) Act;
(l) the Fuels (Sulphur Content) Act;
(m) the Public Cleansing Act;
(n) the Dumping of Waste in Water (Prohibition) Act;
(o) the Environmental Damage Act.

39. **Switzerland.** In 1986 the Government adopted an overall Air Pollution Control Strategy covering sulphur dioxide, nitrogen oxides and volatile organic compounds (VOCs). The 1985 Federal Law relating to the Protection of the Environment and its implementing ordinances, in particular the 1986 Ordinance on Air Pollution Control (OAPC), the 1997 Ordinance on the incentive tax on “extra light” heating oil with a sulphur content of more than 0,1 per cent (HELV) as well as the 1997 Ordinance on incentive taxes on VOC and the 1986 Ordinance relating to Environmentally Hazardous Substances set the legal framework of a comprehensive air pollution control programme. The 1986 OAPC, amended in 1992, 1997 and 1999, regulates emissions from stationary sources. It contains emission standards for about 150 individual inorganic and organic pollutants. Moreover, the Ordinance contains fuel and petrol requirements as well as effect-oriented ambient air quality standards. As regards pollution caused by motor vehicles, emission standards are laid down in the Ordinances relating to the Laws on Road Transport, Navigation and Aviation.

40. The principles of the air pollution control policy are set out in the 1985 Federal Law relating to the Protection of the Environment. Its objective is to protect human beings, animals and plants, their biological communities and habitats against harmful effects or nuisances and to maintain the fertility of the soil. Both a source-oriented (through emission standards) and an effect-oriented (through ambient air quality standards) approach are followed. Irrespective of existing environmental pollution, as a precautionary measure, emissions are to be limited as much as technology and operating conditions allow, provided this is economically feasible. Emissions shall be limited more stringently if harmful effects are found or expected, taking into consideration the existing level of environmental pollution.

41. The Ordinance relating to Environmentally Hazardous Substances of 1986 regulates the import, the production, the supply, the use and the export of substances that may present a hazard to the environment. It comprises instructions for the environmental impact assessment of new and existing substances and products. Corresponding to the assessment, the substances must be labelled with information on the type of hazard, on the methods of disposal and on other particular instructions such as safety instructions. In addition to the general regulations, annexes to this ordinance contain special regulations for particular groups of chemicals. Among them, several are of special interest regarding the emissions of hazardous substances into the atmosphere which may occur during production and use or during waste treatment (e.g. CFCs, halogenated organic compounds, heavy metals).

42. **Turkey**. Environmental issues have received special consideration in Turkey during the 1970s in parallel to the activities throughout the world, which in turn necessitated new policies and decisions yielding certain social and economic results. Following this, Turkey has established her legal and administrative structure and defined her environmental problems.

43. The Environment Law (coded 2872), which came into force in 1983, starts from the principle of "the polluter pays", and handles the issue of environment on a very broad scope. The aim of the law, which considers the environment as a whole, is not only to prevent and eliminate environmental pollution, but also to allow for the management of the natural and historical values and the land in such a way as to utilize and preserve such richness with the concern for future generations as well.

44. The main instrument of air quality management in Turkey is The Air Quality Control Regulation which gives ambient quality standards and emission pemission system for stationary sources of pollution The Air Quality Control Regulation was formulated in line with the purpose and principles envisaged in the Environmental Law and it was issued in November 1986. The purpose of AQCR is to bring control over the emissions in the form of soot, smoke, dust, gases, steam and aerosols diffused into the atmosphere as a result of activities; to protect human beings and their environment from hazards arising from pollution of the air as a receptor medium; to eliminate the adverse environmental effects of air pollution which cause serious damage to the public and neighborly relations and to ensure that such effects are not created. To achieve the purpose stated above, the provisions of this Regulation embrace:

(a) The construction and operation of plants;

(b) The production, use, storage, transportation and importation of fuel raw material and other products in plants;

(c) The conditions governing the equipping and operating of motor vehicles and the specifications to be obeyed.

The regulation specifies the facilities, which have significant negative effects on human health, and the environment according to its terms, permission and operations of such facilities are to be granted by emission licences system.

45. The AQCR specifies the facilities, which have to be controlled because of their potential impact, divided into two groups. Plants in group A are licensed in accordance with Public Health Law No: 1593) by taking into account the views of the Ministry of the Environment Permissions for plant in group B are granted taking into account the views of the local environmental boards, again in accordance with the Public Health Law. Sulphur, nitrogen oxides, VOCs, heavy metals

and persistent organic pollutant emissions limits are defined in AQCR. Furthermore, the AQCR is under revision now. The regulation is being revised according to European Union Standards. It is expected that this revision process shall be completed by the end of 2000.

46. **United Kingdom.** Parties may wish to report on regulatory measures other than those mentioned in sections 1 to 6. Provide a short description of your legislative and regulatory framework, including specific regulatory measures to:

(a) Control and reduce emissions of sulphur, nitrogen oxides and VOC: Please refer to answers given to questions 2, 9 and 18 above;

(b) Control and reduce emissions of heavy metals listed in annex I to the Protocol on Heavy Metals: Please refer to the answer given in question 70;

(c) Reduce the generation and emissions of the persistent organic pollutants covered by the Protocol on POPs: Please refer to the answer given in question 71.

47. **United States**. The Clean Air Act, as amended in 1990, created a comprehensive plan to significantly reduce the emissions of air pollutants over the next 15 years and a framework for addressing air pollution problems in the future. It established significant new emission requirements for mobile sources and fuels, requirements for the installation of best available control technologies on major new and existing stationary sources of 188 hazardous air pollutants many of which are VOCs, requirements for a reduction of approximately 10 million tons of reductions in sulphur dioxide and approximately 2 million tons of reductions in nitrogen oxides to address acid rain problems, and requirements for achieving the obligations under the Montreal Protocol on Substances that Deplete the Ozone Layer including the early phase out of products wherever possible. It also established a detailed comprehensive framework for addressing health and environmental effects associated with what the U.S. refers to as criteria pollutants (i.e., CO, Pb, NO_X, O_3, PM_{10} and SO_2) through achievement of the national ambient air quality standards for these pollutants on a specific schedule in all areas of the country. This innovative framework recognized the differences in the air pollution problem in different areas of the country and allowed longer schedules in some areas provided they implemented more mandatory control measures. The 1990 CAA reenforced the framework for review of the air quality standards to ensure that they continue to protect the public health and welfare.

48. **European Community**. The first daughter Directive to Directive 96/62/EC (the "Framework Directive" on ambient air quality assessment and management) relating to limit values for sulphur dioxide, nitrogen dioxide and oxides of nitrogen, particulate matter and lead in ambient air (1999/30/EC) was adopted by the Council and came into force in July 1999. Non-compliance with the limit values requires Member State to draw up action plans and programs in order to achieve the limit values within the period specified in the Directive. It also defines common methods for monitoring and assessing the air quality in relation to these pollutants.

49. **Question.53 Parties to the Convention are invited to provide further information on fuel standards. You may wish to refer to your answer to questions 19 to 23 in section 4 above. Please use the table provided below to report standards for the different fuel types. If more than one standard is applied, provide a short explanation in the "comment" column.**

50. **Armenia**. The following new quality standards have been established for automotive fuel used in Armenia:

Leaded petrol	**Unleaded petrol**	**Comments**
Not to exceed 0.15 gPb/litre	Not to exceed 0.013 gPb/litre	Date of introduction: 1 March 2000

51. **Austria**. Fuel quality standards are:

Light fuel oil (%S)	**Medium fuel oil** (%S)	**Heavy fuel oil** (%S)	**Comments**
0.1 % (gas oil) 0.2 %	0.6 %	1.0 %	see Q.19 for usage
Solid fuel. Hard coal ~~(%S)~~	**Solid fuel. Lignite** ~~(%S)~~	**Comments**	
0.2–0.3 g/MJ	0.3 g/MJ	regulations are specific for some source categories, see Q.19 for details	
Leaded petrol (g Pb/litre)	**Unleaded petrol** (g Pb/litre)	**Comments**	
–	0.005 g/l		

52. **Belarus**. For the purposes of this report, reference may be made to the fuel quality standards given in EB.AIR/1998/3/Add.1 (p. 23).

53. **Belgium.** Federal Government:

Fuel quality standards

Light fuel oil Error! Bookmark not defined. **(% of S)**	**Medium fuel oil (% of S)**	**Heavy fuel oil (% of S)**	**Comments**
Not distributed	**1 %**	**1 %**	**Since 1995 only 1 % is sold**
Solid fuel Coal (% of S)	**Solid fuel Lignite (% of S)**	**Comments**	
N.A.	**N.A.**	**No national standard** **No production since 1996**	
Leaded petrol (g of Pb/litre)	**Unleaded petrol (g of Pb/litre)**	**Comments**	
0.15 g/	**0005 g/l**	**Leaded petrol not sold since 1/1/2000**	

54. **Bulgaria:** Fuel quality standards are:

Light fuel oil (%S)	**Medium fuel oil (%S)**	**Heavy fuel oil (%S)**	**Comments**
0.2 B 0.3	1.25	3.5	
Solid fuel. Hard coal (%S)	**Solid fuel. Lignite (%S)**	**Comments**	
2.7	2.5 B 3.5		
Leaded petrol (g Pb/litre)	**Unleaded petrol (g Pb/litre)**	**Comments**	
0.15	0.013		

55. **Canada.** Fuel quality standards are:

Light fuel oil (%S)	**Medium fuel oil** (%S)	**Heavy fuel oil** (%S)	**Comments**
None at federal level; some provinces have standards (diesel on-road .05% - since January 1998)			
Solid fuel. Hard coal (%S)	**Solid fuel. Lignite** (%S)	**Comments**	
None at the federal level			
Leaded petrol (g Pb/litre)	**Unleaded petrol** (g Pb/litre)	**Comments**	
.026	.0005	Effective December 1, 1990	

Note: Effective December 1, 1990 leaded petrol will only be allowed for use in aviation gasoline and competitive racing fuels.

56. **Croatia**.

Table - Fuel quality standards

Light fuel oil (%S)	Medium fuel oil (%S)	Heavy fuel oil (%S)	Comments
extra light fuel oil:0.2 light fuel oil: max 1.0	max. 1.0	max. 1.0	Domestic fuel oils: extra light: 0.5 light: 2.0 medium: 3.0 heavy: 4.0 till the July 1, 2002
Solid fuel. Hard coal (%S)	Solid fuel. Lignite (%S)	Comments	
max 1 g/MJ	max 1 g/MJ	Content of sulphur laid down for use in very small, small and medium sized combustion chamber (up to 50 MWth	
Leaded petrol (g Pb/litre)	Unleaded petrol (g Pb/litre)	Comments	
max. 0.15	max. 0.013	Domestic leaded petrol: max 0.5 g/l till the July 1, 2002	

57. **Cyprus**. Fuel quality standards are:

Light fuel oil (%S)	Medium fuel oil (%S)	Heavy fuel oil (%S)	Comments
1,0	4,0	4,0	(1) Average 0,9% (2) Average 2,0% (3) Average 2,0%
Solid fuel. Hard Coal (%S)	**Solid fuel. Lignite** (%S)	**Comments**	
Leaded petrol (g Pb/litre)	Unleaded petrol (g Pb/litre)	Comments	
0,40 super 0,15 regular	0,013		

58. **Czech Republic**. Information on fuel standards: The limits for the contents of sulfur in diesel fuels and lead in automobile petrols pursuant to the pertinent Decrees are given in the answers to Q.19 and Q.29. The following standards are valid for motor fuels. Pursuant to Decree No. 244/1999 Coll., the fuel used must correspond to the pertinent Czech technical standard. A survey of valid standards is given in the following table.

Fuel	Kind of drive	Technical standard
automobile gasoline - unleaded - leaded	positive-ignition engine	 CSN EN 228 CSN 65 6505
diesel fuel	compression-ignition engine	CSN EN 590
biofuel	compression-ignition engine	CSN 65 6507-9 (according to the weight fraction of methyl esters of rapeseed oil)
liquid propane gas (LPG)	positive-ignition engine	CSN EN 589
compressed natural gas (CNG)	positive-ignition engine	CSN 38 6110

The following standards are valid for liquid propane gas (LPG) and compressed natural gas (CNG) pursuant to Decree No. 102/1995 Coll:

Fuel	Standard	Units
LPG	the density of liquified propane-butane gas at a temperature of 50 ^{o}C pressure at a temperature of 70 ^{o}C	450 kg.m^{-3} max. 2.55 MPa
CNG	volume fraction of methane or other mixtures of hydrocarbons with critical temperature below -10 ^{o}C	at least 85%

59. According to the plan, in the year 2001, new legislation will be valid in CR to replace Law No. 38/1995 Coll., on technical conditions for the operation of highway vehicles on roadways,

and Decree No. 102/1995 Coll., on approval of the technical suitability and technical conditions for the operation of highway vehicles on roadways. According to the new legislation:

(a) The sales of leaded petrol in CR will be prohibited (prohibition of the sales of leaded petrol is laid down by the current legislation in Decree No. 244/1999 Coll., implementing Law No. 38/1995 Coll.);

(b) unleaded petrol and diesel fuel must comply with the requirements of EU Directive 98/70 EC. Producers and distributors of petrol and motor fuel state that, by the end of the year 2002, petrol and diesel fuel will comply with the conditions of Directive 98/70, annex I and II. The Ministry of Industry and Trade (MIT) will be responsible for control of compliance with the requirements of this Directive, for monitoring compliance with this Directive and for issuing the documents to ensure the compliance with the requirements of the Directive (implementing Decree to the Act on technical requirements for operation of vehicles on roads).

60. **Denmark**. Petrol and diesel fuels for motor vehicles have to meet EU-directive 98/70. Due to use of tax-incentives the auto diesel already meet the 2005-requirement for sulphur (50 ppm). See Q.24. Fuel quality standards are:

Light fuel oil (%S)	**Medium fuel oil** (%S)	**Heavy fuel oil** (%S)	**Comments**
1.0	1.0	1.0	Tax incentives have resulted in market values of 0,1-0,8%
Solid fuel. Hard coal (%S)	**Solid fuel. Lignite** (%S)	**Comments**	
0.9	0.9	A sulphur tax on electricity production as of January 2000 is expected to lower the sulphur content.	
Leaded petrol (g Pb/litre)	**Unleaded petrol** (g Pb/litre)	**Comments**	
	Lesser than 0.003	Tax incentives have driven leaded petrol out of the market since February 1994	

61. **Finland**. Fuel quality standards are:

Light fuel oil (%S)	**Medium fuel oil** (%S)	**Heavy fuel oil** (%S)	**Comments**
0,2	0,2	1,0	
Solid fuel. Hard coal (%S)	**Solid fuel. Lignite** (%S)	**Comments**	
1,0			
Leaded petrol (g Pb/litre)	**Unleaded petrol** (g Pb/litre)	**Comments**	

62. **Georgia**.

Fuel quality standards

Light fuel oil (%S)	Medium fuel oil (%S)	Heavy fuel oil (%S)	Comments
< 0.5	0.5 - 2	> 2	
Solid fuel. Hard coal (%S)	Solid fuel. Lignite (%S)	Comments	
1.4	_	This is specification for domestically mined hard coal	
Leaded petrol (g Pb/litre)	Unleaded petrol (g Pb/litre)	Comments	
banned	0.013		

63. **Germany**. See Question 23.

64. **Greece.**

Fuel quality standards

Light fuel oil (%S)	**Medium fuel oil** (%S)	**Heavy fuel oil** (%S)	**Comments**
3.2	3.2	3.2	0.7% in Athens
Solid fuel. Hard coal (%S)	**Solid fuel. Lignite** (%S)	**Comments**	
	0.5- 1.5	Of Greek origin	
Leaded petrol (g Pb/litre)	**Unleaded petrol** (g Pb/litre)	**Comments**	
0.15	0.005		

65. **Hungary**. Fuel quality standards are:

Light fuel oil (%S)	**Medium fuel oil** (%S)	**Heavy fuel oil** (%S)	**Comments**
1	1.02-2.4	2.5-2.7	
Solid fuel. Hard coal (%S)	**Solid fuel. Lignite** (%S)	**Comments**	
Domestic brown coal: 2-3.6 Import hard coal: max. 1	1.2-1.4	According to the calorific value the domestic brown coal can be considered only as lignite, and the domestic lignite as peat	
Leaded petrol (g Pb/litre)	**Unleaded petrol** (g Pb/litre)	**Comments**	
-------	0.002		

66. **Italy.** Fuel quality standards are:

Light fuel oil (%S)	**Medium fuel oil** (%S)	**Heavy fuel oil** (%S)	**Comments**
0.3 (jet fuel) 0.2 (others)	0.2 (0.035 for diesel)	0.3 (<3MWth and residential 1 (3-50 MWth) 3.0 (>50 MWth and refineries	
Solid fuel. Hard coal (%S)	**Solid fuel. Lignite** (%S)	**Comments**	
1	1		
Leaded petrol (g Pb/litre)	**Unleaded petrol** (g Pb/litre)	**Comments**	
0.15	0.05		

67. **Latvia**. Fuel quality standards are:

Light fuel oil (%S)	Medium fuel oil (%S)	Heavy fuel oil (%S)	Comments
0.05	0.2 (aviation fuel)		
Solid fuel. Hard coal (%S)	Solid fuel. Lignite (%S)	Comments	
Leaded petrol (g Pb/litre)	Unleaded petrol (g Pb/litre)	Comments	
, 0.15 [c] 0.15	0.005	Max benzene content in petrol is 5% (mass %)	

[c] restricted for use after 01.05.2000.

68. **Lithuania**. Fuel quality standards are:

Light fuel oil (%S)	**Medium fuel oil** (%S)	**Heavy fuel oil** (%S)	**Comments**
≤ 0,05	≤ 1,1	≤ 2,5	Light fuel oil means akk types of gasoline and diesel fuel.
Solid fuel. Hard coal (%S)	**Solid fuel. Lignite** (%S)	**Comments**	
No limits	No limits	S content in coal or lignite is not limited as their consumption is small in comparison to that of oil or gas.	
Leaded petrol (g Pb/litre)	**Unleaded petrol** (g Pb/litre)	**Comments**	

Banned	0,013	From 1996, Lithuania produces only unleaded petrol. From 1998, the use of leaded petrol is banned.

69. **Netherlands.** Please refer to Q 19 to Q 29.

70. **Poland.** Fuel quality standards.

Light fuel oil (%S)	**Medium fuel oil** (%S)	**Heavy fuel oil** (%S)	**Comments**
< 0.3	< 1.0	< 3.5	
Solid fuel. Hard coal (%S)	**Solid fuel. Lignite** (%S)	**Comments**	
-	-		
Leaded petrol (g Pb/litre)	**Unleaded petrol** (g Pb/litre)	**Comments**	
0.05-0.15	0.013		

71. **Republic of Macedonia**. Indicates its Fuel quality standards:

Light fuel oil (%S)	Medium fuel oil (%S)	Heavy fuel oil (%S)	Comments
Light – 2%S Light low sulphur 1%S Light special - 1.5%S	Medium - 2% Medium low sulphur - 1%S	Heavy - 2% Heavy low sulphur - 1%S	From 2005: M-1 (medium sulphur) - 1%S M-1 (low sulphur) - 2%S M-2 (medium sulphur) 3%S M-2 (low sulphur) - 1%S
Leaded petrol (g Pb/litre)	Unleaded petrol (g Pb/litre)	Comments	
Premium (RON 98) - 060 g/litre Regular (RON 86) - 0.60 g/litre	Premium (RON 95) - 0.02 g/litre	From 2005: Premium leaded (RON 96) - 0.15 g/litre Premium unleaded (RON 95) - 0.013 g/litre Regular unleaded (RON 90) - 0.013 g/litre	

The following tables have also been provided for information:

CURRENT STANDARD MKS B.H2.220
Motor gasoline, leaded

Property	Premium MB 98	Regular MB 86
Distillation, %vol. recovered - 10 %vol. at °C, max. -50 %vol. at °C, max. -95 %vol. at °C, max.	 55 1) 65 2) 115 200	
Reid vapor pressure, kp/em^2, max.	0.9 1) 0.7 2)	
Vapor-liquid ratio 36:1, °C, min.	45 1) 55 2)	
Octane number RON, min. MON, min.	 98 87	 86 80
Lead content, g/lit, max.	0.60	
Sulphur content, %wt., max	0.10	
Corrosion (cu, 3hr, at 50 °C	1a	
Gum content, mg/100 ml., max.	6	
Induction period, min.	420	
Color	blue	yellow

1) From 1 October till 31 March (winter period)
2) From 1 April till 30 September (summer period)

Standards
CURRENT STANDARD MKS B.H2.210
Motor gasoline, unleaded

Property	Premium BMB 95
Distillation, %vol., recovered -10%vol., at °C, max. -50%vol., at °C, max. -95%vol., at °C, max. - FBP, °C, max. - residue and losses, %vol., max. Reid vapor pressure, bar, max. Vapor-liquid ratio 36:1, °C, min	 55 1) 65 2) 120 205 220 3 0.9 1) 0.7 2) 53 2)
Octane number RON, min. MON, min.	 95 85
Lead Content, g/lit, max.	0.02

Sulphur content, %wt., max. Corrosion (Cu, 3hr, at 50 °C), max. Gum content, mg/100 ml., max. Induction period, min.	0.2 1b 5 420
Color	non colored

1) From 1 October till 31 March (winter period)
2) From 1 April till 30 September (summer period)

CURRENT STANDARD MKS B.H2.410
Fuels for high speed compression-ignition engines

Property	**Diesel fuel D1**	**Diesel fuel D2**
Density at 15 °C, g/ml	0.80 - 0.84	0.81 - 0.86
Distillation, %vol., recovered - at 300 °C, min. - at 360 °C, min	 90 -	 - 90
Viscosity at 20 °C, cSt	1.0 - 6.5	1.8 - 9-0
CFPP, °C, max.	-17 1) -7 2)	-9 2) +1 2)
Flash point, °C, min.	40	55
Carbon residue (Conradson), %wt., max.	0.15 (from 10% of the residue)	0.10
Ash content, %wt., max.	0.01	0.02
Water content, %vol. max.	0.05	0.10
Corrosion, max.	1	2
Sulphur content, %wt., max.	0.50	1.0
Octane number (CB), min.	45	45

1) From 15 October till 14 April (winter period)
2) From 15 April to 14 October (summer period)

CURRENT STANDARD MKS B.H2.430

Fuel oil

Property	Heating Oil Extra light EL	Fuel Oil						
		Light special	Light		Medium		Heavy	
		LS	L	LNS	S	SNS	T	TNS
Density at 15°C, g/ml.max.	870							
Flash Point, oC	55	60	60		80		100	
Kinematic viscosity, $min^2/_s$ - at 20°C - at 50 °C - at 100 °C	2.5-6	6-12	6-20		6-26		26-53	
Sulphur content, %wt., max.	1	1.5	2	1	2	1	2	1
Water & sediment, %vol., max.	0.15	0.3	0.5		1		1.5	
Color	Red							

Future standard MKS B.H2.210 (2005)
Motor gasoline, unleaded

Property	Motor gasoline unleaded				
		BMB 90		BMB….	
Description	**Units**	**Min.**	**max.**	**min.**	**max.**
Density at 15 °C	**g/ml**	**0.730**	**0.780**	**0.730**	**0.780**
Distillation, vol. recovered					
- at 70°C	%vol.	15	45	15	45
- at 100°C	%vol.	40	65	40	65
- at 180°C	%vol.	85		85	
- FBP	°C		215		215
- residue	%vol.		2		2
Reid vapor pressure					
- winter [1)]	kPa	45	80	45	80
- summer [2)]	kPa	35	65	35	65
Volatility Index, VL1					
- winter [1)]			1050		1050
- summer [2]			950		950
Octane Number					
- RON		90.0		95.0	
- MON		80.0		85.0	
Induction period at 100 °C	min.	360		360	
Corrosion (Cu,3 hr, 50 °C)			1		1
Lead content	g/l		0.013		0.013
Sulphur content	%wt.		0.05		0.05
Gum content	mg/100ml		5		5
Benzene content	%vol.		5.0		5.0
Color		green		Non colored	

1) from 1 October till 31 March (winter period)
2) from 1 April till 30 September (summer period)

* Maximum Oxygenates limits are according to the Directive 85/536/EEC (column A).

FUTURE STANDARD MKS B.H2.220 (2005)
Motor gasoline, leaded

Property		Motor gasoline MB 96	
Description	**Units**	**min.**	**max.**
Density at 15 °C	g/ml	0.730	0.780
Distillation, vol. recovered			
- at 70°C	%vol.	15	45
- at 100°C	%vol.	40	65
- at 180°C	%vol.	85	
- FBP	°C		215
- residue	%vol.		2
Reid vapor pressure			
- winter [1)]	kPa	45	80
- summer [2)]	kPa	35	65
Volatility Index, VL1			

- winter [1)] - summer [2]			1050 950
Octane Number - RON - MON		96.0 86.0	
Induction period at 100 °C	Mib.	360	
Corrosion (Cu,3 hr, 50 °C)			
Lead content	g/l		0.15
Sulphur content	%wt.		0.05
Gum content	mg/100ml		5
Benzene content	%vol.		5
Color		blue	

1) From 1 October till 31 March (winter period)
2) From 1 April till 30 September (summer period)
*Maximum Oxygenates limits are according to the Directive 85/536/EEC (Column A)

FUTURE STANDARD MKS B.H2.410 (2005)
Fuels for high speed compression-ignition engines

Property		**Diesel fuel D**	
Description	Units	Min.	Max.
Density at 15 °C	g/ml	0.820	0.860
Distillation, % vol. recovered - at 250°C - at 350°C - at 370°C	 %vol. %vol. %vol.	 85 95	 65
Flash point	°C	55	
Kinematic viscosity at 40°C	$mm^2/_s$	2.00	4.50
CFPP - winter[1)] - intermediate period[2)] - summer[3)]	 °C °C °C		 -15 -7 -2
Octane number		49	
Octane index		46	
Corrosion (Cu,3 hr, 50 °C)			1
Sulphur content	%wt.		0.20
Water content	%vol.		0.05
Carbon content			
(on 10% residue)	%wt		0.30
Ash content	%wt		0.01

1) From 1 December in the current year till 28 (29) February next year (winter period)
2) From 1 October till 30 November and 1 March till 15 April (intermediate period)
3) From 16 April till 30 September (summer period)

71. **Republic of Moldova:** State quality standards are laid down in the Republic of Moldova for the content of fuel used. At present in the Republic of Moldova the fuels are not produced. Fuel quality standards are:

Light fuel oil (%S)	Medium fuel oil (%S)	Heavy fuel oil (%S)	Comments
0,1	0,2 – 0,5	0,5 – 3,5	
Solid fuel. Hard coal (%S)	Solid fuel. Lignite (%S)	Comments	

2,9	-	
Leaded petrol (g Pb/litre)	Unleaded petrol (g Pb/litre)	Comments
0,17	0,013	

In goals of reduction of emissions of toxic substances Ministry of Environment and Territorial Development plans in nearest future activities for the modification of State standards of the fuel quality.

72. **Russian Federation**. Russia has adopted the following fuel quality standards:

Light fuel oil (%S)	Medium fuel oil (%S)	Heavy fuel oil (%S)	Comments
Petrol 0.1	Diesel fuel 0.2-0.5	Fuel oil	
Solid fuel Hard coal (%S)	Solid fuel Lignite (%S)	Comments	
-	-	No sulphur-content standards for coals	
Leaded petrol (g Pb/litre)	Unleaded petrol (g Pb/litre)	Comments	
0.17-0.37	0.013	In accordance with State standard GOST 2084-77	

73. **Slovakia**. Fuel quality standards are:

Light fuel oil (%S)	**Medium fuel oil** (%S)	**Heavy fuel oil** (%S)	**Comments**
1	1	1	All liquid fuels have the same limit for sulphur content
Solid fuel. Hard coal (%S)	**Solid fuel. Lignite** (%S)	**Comments**	
0,78 g S/MJ	1,1 g S/MJ	Briquettes: 0,6 g S/MJ Coke: 0,35 g S/MJ	
Leaded petrol (g Pb/litre)	**Unleaded petrol** (g Pb/litre)	**Comments**	
-	0,005 g/l	Leaded petrol is not allowed in the SR	

74. **Spain**. Fuel quality standards are:

Light fuel oil (%S)	Medium fuel oil (%S)	Heavy fuel oil (%S)	Comments
< 1% (AFuel Oil n1 1 BIA@)	2,7% (AFuel Oil n1 1)	3,5% (AFuel Oil n1 2)	

Solid fuel. Hard coal (%S)	Solid fuel. Lignite (%S)	Comments
0,8-1,5	2-5	
Leaded petrol (g Pb/litre)	Unleaded petrol (g Pb/litre)	Comments
0,15	0,005	

75. **Sweden**. Q .18 ,Q.23, Q.53 Sulphur in fuels: The max sulphur content in light fuel oil is 0.2 %. There is no specific limit for sulphur in heavy oil and solid fuels. The content in both light and heavy fuel oils are decided by the sulphur tax ,less than 0,1% in light oils and about 0,4 % in heavy oils.

76. **Switzerland**. Fuel quality standards (see also answer to question 30) are:

Light fuel oil (% S)	Medium fuel oil (% S)	Heavy fuel oil (% S)	Comments
Less than 0,2 %	1,0 %	1,0 %	Quality A
	2,8 %	2,8 %	Quality allowed only with FGD

Solid fuel. Hard coal (% S)	Solid fuel. Lignite (% S)	Comments
1,0 %	1,0 %	Quality A
3,0 %	3,0 %	Quality B allowed only with FGD

Gas oil (diesel) for on-road vehicles	Petrol (gasoline)	Comments
350 mg S / kg 0,035% 50 mg / kg	150 mg S / kg 50 mg / kg	since 1.1.2000 following 98/70/EC directive by 1.1.2005

Leaded petrol (g Pb/litre)	Unleaded petrol (g Pb/litre)	Comments
0,15	0,013	Until 31.12.1999
Phased out	0,005	Since 1.1.2000 following 98/70/EC directive

77. **Turkey**. Concerning fuel quality regulations, Diesel's fuel sulphur content has been limited to 0.7 % since 1997 and will be limited to 0.05 % by 2004. Two types of heavy fuel oils are marketed in Turkey: that for domestic heating (maximum sulphur content 1.5 %) and heavy fuel-oil No:6 (average sulphur content allowed for domestic lignite, but imported coal cannot have a sulphur content higher than 1 %). The benzene content in gasoline, with 0.15 g/1 for RON 91 and 0.40 g/1 for RON 95, is equal to 5 %. These standards are generally less stringent than those in other OECD countries. Fuel Quality Standards are

Light fuel oil (% S)	**Medium fuel oil (% S)**	**Heavy fuel oil (% S)**	**Comments**
	1.5	3.5	
Solid fuel. Hard coal (% S)	Solid fuel. Lignite (% S)	Comments	

0.6	1-2.5	
Leaded petrol (g Ph/litre)	Unleaded Petrol (g Ph/litre)	Comments After 2005, all petrol will have to be unleaded
0.40	0.013	

Source: 1996 Air Quality Control Regulation

78. **Ukraine**. Information on fuel standards is contained in the following table:

Light fuel oil (%S)	Medium fuel oil (%S)	Heavy fuel oil (%S)	Comments
0.5-2.0	0.5-3.5	0.5-3.5	
Solid fuel. Hard Coal (%S)	Solid fuel. Lignite (%S)	Comments	
None	None	Standard is being developed for solid fuel allowing a maximum sulphur content of 1.5 %	
Leaded petrol (g Pb/litre)	Unleaded petrol (g b/litre)	Comments	
0.05-0.5	0.013		

79. **United Kingdom**. Fuel quality standards are:

Light fuel oil (%S)	Medium fuel oil (%S)	Heavy fuel oil (%S)	Comments
Under EC Directive 1999/32/EC, the sulphur content of gas oil in the UK will be limited to 0.2% from 1 July 2000 and to 0.1% from 1 January 2008. The sulphur content of heavy fuel oil will be limited to 1% from 1 January 2003.			
Solid fuel. Hard coal (%S)	Solid fuel. Lignite (%S)	Comments	
No Standard	No Standard		
Leaded petrol (g Pb/litre)	Unleaded petrol (g Pb/litre)	Comments	
0.15	0.013		

80. **United States** . Fuel quality standards[1] are:

Light fuel oil (%S)	**Medium fuel oil** (%S)	**Heavy fuel oil** (%S)	**Comments**
.05%	N/A	N/A	Expected to be tightened in 2006
Solid fuel. Hard coal	**Solid fuel. Lignite**	**Comments**	

[1] Transportation Diesel Fuel

(%S)	(%S)	
N/A	N/A	
Leaded petrol (g Pb/litre)	**Unleaded petrol** (g Pb/litre)	**Comments**
N/A	.013	

81. **European community**. Adoption of Directive 99/32 limits the sulphur content of HFO to 1% from 1 January 2003 and the maximum sulphur content of gas oil to 0.2% from July 2003 and 0.1% from 1 January 2008. See Q 19. Fuel quality standards are:

Light fuel oil (%S)	**Medium fuel oil** (%S)	**Heavy fuel oil** (%S)	**Comments**
Solid fuel. Hard coal (%S)	**Solid fuel. Lignite** (%S)	**Comments**	
Leaded petrol (g Pb/litre)	**Unleaded petrol** (g Pb/litre)	**Comments**	
0.15gPb/1	0.005gPb/1		