

# **National Programme for the Gradually Phase Out of Lead Gasoline Production and Usage in Republic of Bulgaria: Past and Future**

Adopted with Council of Ministers' Decision No. 173/27.4.1998

## Justification

1. The Sofia Initiatives on Local Air Quality Improvement in Central and East Europe adopted during the Third Ministerial Conference "Environment for Europe" in 1995
2. The Pan European Strategy dated 1996 on the Phasing Out the Production and Usage of Lead Gasoline
3. The Aarhus Protocol signed by Bulgaria in Denmark 1998 on the Limitation of Heavy metals Emissions to the Convention on Long-Range Transboundary Air Pollution

These are the three legal justifications.

The most significant justification for the adoption of this Program is the health risk reduction of the population impacted by the lead aerosols, exhausted by the vehicles.

**Table 1. The Total Yearly Emissions of Lead Aerosols from the Transport [tons]**

| <b>Year</b> | <b>1990</b>  | <b>1995</b>  | <b>1998</b>  | <b>1999</b> | <b>2000</b> | <b>2001</b> | <b>2002</b> | <b>2003</b> |
|-------------|--------------|--------------|--------------|-------------|-------------|-------------|-------------|-------------|
| <b>Pb</b>   | <b>199,2</b> | <b>153,3</b> | <b>109,3</b> | <b>98,5</b> | <b>65,1</b> | <b>33,4</b> | <b>15,9</b> | <b>8,1</b>  |

For the period 1995 – 2001 the total yearly lead emissions of the transport were 40 % from the total yearly lead emissions.

## **The National Programmes' specifics:**

The most important part of the Program is the Action Plan. It includes the tasks, the responsible authorities and the deadlines for their execution. The Ministry of Environment and Water (MoEW) is appointed as controlling and coordinating body. Periodically MoEW reports to the Council of Ministers for the Action Plan progress. A special Task group is formed with representatives of all the concerned parties. The Executive Environmental Agency is also included. The Task Force Group has several meetings per year discussing and taking measures for the timely and correct execution of the Program and Action Plan. The results are reported to the Minister.

The National Programme was developed with main goal to phase out the leaded gasoline but in fact it goes beyond this and covers broader tasks, such as:

- to create a new legal frame for the fuels quality
- to improve the control on the fuels quality and if necessary to implement sanctions
- to introduce measures related to the vehicle fleet
- to implement financial measures in order to promote the unleaded gasoline consumption
- to ensure the production of unleaded gasoline in amounts that meet the internal market needs from the only one producer in Bulgaria Lukoil Neftohim, Bourgas
- and last but not the least to popularize the campaign for unleaded gasoline consumption

The fulfillment of all these measures required significant efforts and serious investments especially in the refinery (about 50 million USD for the refinery reconstruction). The Program was successfully executed and due to this starting from January 1 there is no leaded gasoline production and consumption in Bulgaria.

**Table 2. Unleaded Gasoline Consumption Compared to the total Gasoline Consumption [ %]**

| Year                | 1997 | 1998 | 1999 | 2000 | 2001 | 2002 | 2003 |
|---------------------|------|------|------|------|------|------|------|
| % unleaded gasoline | 5,7  | 11   | 19   | 38   | 67   | 91   | 98   |

Several examples:

**1. The adoption of the National Program** coincides with the refinery Lukoil privatization. In the privatization contract a clause was included, saying that Lukoil company obliges itself to start the unleaded gasoline production in quantities that cover the internal market needs. The refinery developed and implements an Investment Program 2000 – 2004 which has been successfully finish before the term.

**2. Development of new legal frame for fuels' quality**

In 1998 a new Regulation No. 17 on Norms and Standards of Dangerous Substances Content in liquid fuels was adopted. This regulation was based on the Directives EC 98/70 and 99/32 provisions. However it proves to have one basic disadvantage: the control body rights and obligations were not defined. After the New National Standardization Act was promulgated the application of the national standards was canceled. It becomes on voluntary basis. The liquid fuels import border control was also canceled the same year. Additionally reorganization of some authorities also brought to the lack of control. The Task Group on fuels discloses this gap and develops and justified amendments in the Clean Air Act in 2001. The amendments define the responsible controlling authority - State Agency for Metrology and Technical Surveillance (SAMTS) and the newly created Directorate General of Liquid Fuels Quality Control at SAMTS. Based on Clean Air Act in 2003 a Regulation on the Requirements for the Liquid Fuels' Quality, and for the Terms, Procedure and Methods of Their Control adopted by Decree No.156/15.07.2003 of Council of Ministers; SG 66/25.07.2003; in force from 01.10.2003) which repealed the former one. Thus the Bulgarian legislation was fully harmonized with the requirements of Directives: Regulation on the Requirements for the Liquid Fuels' Quality, and for the Terms, Procedure and Methods of Their Control adopted by Decree No.156/15.07.2003 of Council of Ministers; SG 66/25.07.2003; in force from 01.10.2003)

The liquid fuels' quality requirements were consistent with the Chapter 22 Bulgarian Position Paper during the accession negotiations. The deadlines for introducing norms were preliminary agreed during the negotiations. With this regulation the control on the liquid fuels quality is legally clarified along the chain of the concerned participants: producer; importer, distributor including the gasoline stations.

The next step was done this year. With Decree 192/16.08.2005 some amendments were done on the Regulation which transposed the Directive 2003/17 requirements. Besides, as a result of the accumulated experience some texts were improved related to the control functions.

### **3. National Program Closing**

It coincides with the closing of the negotiations for EU accession. Related to the liquid fuels quality Bulgaria asks for transitional periods for the final compliance. Justification for the Directive 99/32 implementation within a later period was developed and accepted by EU representatives. The transitional periods concern the heavy liquid fuels oils fractions. Especially helpful was the accumulated experience within the Twining PHARE project with the French Ministry of Environment ADEME (liquid fuels, refinery, law, technical and investment changes that shall take place, etc.).

### **4. National vehicle fleet**

The greatest difficulties we faced with were connected with the measures for the vehicles in the country due to several reasons:

- there is not national car production; extremely old vehicles (dated January 1, 2004 about 40% from the vehicles are above 20 years aged)
- the economical difficulties of the country within the transitional period towards market economy (low incomes and free second hand vehicle market).

Notwithstanding the implemented measures, such as:

the new Road Traffic Act (1999) and its amendments

the subordinated regulations (Regulation No 32/1999, amended 2005) on the periodically control on the vehicles technical conditions

the regulations for the new vehicles types' approval

The ratify of the Geneva agreement for equal technical vehicle's instructions

Some finance alleviations (tax reduction for the cars equipped with catalyts) there is a lot of work related to these issues

### **Future activities**

#### **1. Related to liquid fuels' quality**

No matter that the National Program has finished the improvement of the liquid fuel is one of the basic tasks in the National strategy on Environment 2000 – 2006, under Chapter “Air Quality Improvement” is **the liquid fuels quality improvement.**

Till 2006 new amendments shall be done on the Clean Air Act related to the liquid fuels quality control, such as:

To develop National monitoring system on the fuels quality as per Decision 2002/159/EC The latter is connected with the country obligations to report yearly the results of the control after the accession.

To incorporate legal texts related to the administration of the fund formed by sanctions, penalties and financing of the fuels samplings

The next step shall be the harmonization of the Bulgarian legislation with Directive 2005/33, repealing Directive 99/32, on the sulphur content reduction in some liquid fuels. (Regulation on the Requirements for the Liquid Fuels' Quality to be amended

Data base related to the EN 14 274 requirements: including the results from the monitoring jointly with the National Statistics. The yearly report will be base on this.

The monitoring on the Directive 99/32 program implementation will be further developed. The measures included in this program are technical financial, in the refinery, capacity building in the Directorate General of Liquid Fuels Quality Control at SAMTS, equipment, certification of the testing and sampling units harmonization with the EU and international standards for fuels' testing, etc.

### ***2) Related to Forthcoming Projects***

In November 2005 a new Twinning project under PHARE – 2004 will start jointly with the French and Austrian Environmental Agencies and the Netherlands Maritime Inspectorate. It will deal with the harmonization with the EU approach related to the fuels' quality. MoEW will be the Bulgarian participant in the project as well as the Directorate for Clean Fuels, the Maritime Executive Agency to the Ministry of Transport and the Agency for Energy Efficiency (Ministry of Economy and Energy). The project has the following two objectives: Expert's assistance for the harmonization with Directive 2005/33; Establishment of National Liquid Fuels' Quality Monitoring System; training of the inspectors for sampling (ship fuels) within or out of the port; guidance and instructions preparation for joint control on the ship fuels the Directorate and Maritime Agency;

Development of draft National Program on the Encouraging the Production and Usage of Bio-fuels based on the requirements of Directive 2003/30. This task comprises of collection and analysis of large amount of information on the potential of production of bio-fuels (basically bio-diesel and bio-ethanol) in Republic of Bulgaria; determination of regions for cultivation of crops and for their processing; possibilities for construction of installations and the necessary related investments; market study and possible financial concessions or incentives.

### ***3) Related to the Vehicle Fleet***

In 2005 the Task Force Group finish its job (create new legal, technical, administrative and economical measures) in order to renovate the vehicles within the country. Although the final Program versa is not yet ready some of the measures included in it are already implemented. The amendments of the Regulation No. 32/1999 of the Ministry of Transport on Technical control on vehicles are an important step. It includes maximum emission limit levels (gasoline and diesel) related to the vehicle age and registration and the catalysts equipment. The requirements related to the technical control units such as: computer system for technical diagnostic connected with the system for registration the control. Data base real time exchange with the vehicle inspection authority base on territory (region, municipality etc.). Through the Road Traffic Act EURO 3 and EURO 4 to be introduced (starting 1.1.2007 the new vehicles shall meet EURO 3 and EURO 4 standards. The environmental parameters of the vehicles will be filled out in the car IDs thus afterwards could be controlled.

MoEW bears on its responsibility the difficult task to establish Information System between (MoEW, Ministry of Internal Affairs, ministry of Transport, Ministry of Finance and the municipalities. Each vehicle will be included from the time of its first registration and will be monitored till its end of life.

The measures which find difficulties to achieve consensus concern the financing. The Ministry of Finance is now reviewing the idea and will propose appropriate texts.