

144/2000  
**DECREE**  
**of the Ministry of the Environment of the Slovak Republic**  
**of 20 April 2000**  
**on requirements to the quality of fuels,**  
**maintaining operating records, and kind, extent and system of reporting data**  
**to the air protection authority**

The Ministry of the Environment of the Slovak Republic in accordance with Article 17, paragraph c) of the Slovak National Council Act No. 134/1992 Zb., on state administration in air protection as amended by the Act of the National Council of the Slovak Republic No. 148/1994 Z.z. establishes as follows.

Article 1

The Decree regulates requirements to

- a) Quality of solid fossil fuels, and fuels made of them such as brown coal, black coal, briquettes, and coke that are intended for combustion in house combustion plants and other stationary equipment for combustion fuels with rated thermal output not exceeding 0,2 MW (hereinafter referred to as "solid fuels");
- b) Quality of petroleum-derived liquid fuels such as heavy fuel oil, and gas oil that are intended for combustion in house combustion plants and other stationary equipment for fuels of rated thermal output not exceeding 5 MW;
- c) Quality of fuels such as petrol and diesel fuels that are intended for operation of positive-ignition and compression- ignition engines of mobile sources of pollution;<sup>(1)</sup>
- d) Maintaining the operating records, kind, extent, and system of reporting data by manufacturers, importers, and vendors information to the air protection authority.

Article 2

For purposes of this Decree

- a) Heavy fuel oil means any petroleum-derived liquid fuel falling within CN code 2710 00 71 to 2710 00 78 of the Common Customs Tariff duties, <sup>(2)</sup> or any petroleum-derived liquid fuel other than gas oil as defined in paragraph b) herebelow which, by reason of its distillation limits, falls within the category of heavy oils intended for use as a fuel and of which, less than 65 % by volume (including losses) distils at the temperature of 250 °C in terms of the Slovak Technical Standard;<sup>(3)</sup> if the distillation percentage cannot be determined at the temperature of 250 °C, the petroleum product is to be categorized as a heavy fuel oil;
- b) Gas oil means any petroleum-derived liquid fuel falling within CN code 2710 00 67 or 2710 00 68 of the Common Customs Tariff duties or any petroleum-derived liquid fuel which by reason of its distillation limits falls within the category of middle distillates intended for use as fuel and of which 85 % or more by volume (including losses) distils at temperature of 350 °C in terms of the Slovak Technical Standard;<sup>(3)</sup>
- c) Petrol means any volatile mineral oil falling within CN codes 2710 00 27, 2710 00 29, 2710 00 32, 2710 00 34, and 2710 00 36 of the Common Customs Tariff duties intended for propulsion of positive-ignition engines in vehicles;
- d) Diesel fuel means gas oils falling within the CN code 2710 00 66 of the Common Customs Tariff duties and used for self-propelling vehicles, non-road mobile machinery, and agricultural tractors.

### Article 3

This Decree shall apply to legal persons and natural persons authorized to undertake business<sup>(4)</sup> who produce, import, retail and supply fuels to domestic market, and for their own consumption intended for

- a) combusting by stationary fuel combustion plant,
- b) operation of positive-ignition and compression-ignition engines for propulsion of mobile sources of pollution.

### Article 4

(1) The solid fuels sulphur content as related to thermal value of the fuel (hereinafter referred to as "specific sulphur content"), in genuine fuel shall not exceed figures as follows.

- a) 1,1 g.MJ<sup>-1</sup> in brown coal;
- b) 0,78 g.MJ<sup>-1</sup> in black coal;
- c) 0,6 g.MJ<sup>-1</sup> in briquettes; and
- d) 0,35 g.MJ<sup>-1</sup> in coke.

(2) The sulphur content of heavy fuel oil shall not exceed 1 % by mass.

(3) The sulphur content of gas oil shall not exceed

- a) 0,2 % by mass as from 1 July 2000; and
- b) 0,1 % by mass as from 1 January 2008.

(4) Fuels to power positive-ignition and compression-ignition engines of mobile polluting sources shall comply with requirements specified by

a) Annex 1 as from 1 January 2001; and

b) Annex 2 as from 1 January 2005. (5) Additionally to fuels listed in the Annex 1, unleaded petrol may be produced, imported, and retailed with minimum octane number 91 given if research method is used and minimum octane number 81 given if motor method is used, which shall comply with the requirements specified in Annex 1 hereto, except of olefins content that may be by volume 21 % at maximum.

(6) The fuels quality as in terms of paragraphs 1 to 3 above shall be proved by a test protocol. The test will be performed by an accredited laboratory. <sup>(5)</sup>

(7) The fuels quality as in terms of paragraph 4 above shall be proved by a certificate as in terms of specific legislation. <sup>(6)</sup>

(8) Representative samples of sufficient quantity have to be taken, and analyses are to be carried out to ascertain the quality of petroleum-derived liquid fuels, petrol, and diesel fuels.

(9) The sulphur content of heavy fuel oil shall be determined by the reference method in accordance with a Slovak Technical Standard<sup>(7)</sup>, and that of the gas oil, additionally, in accordance with another Slovak Technical Standard. <sup>(8)</sup> Should the sulphur content values as found out by the above methods differ from each other, the sulphur content shall be determined by an arbitrary method in accordance with the Slovak Technical Standard. <sup>(9)</sup>

(10) The statistical evaluation of sulphur content inspection results of gas oils used shall be carried out in accordance with the Slovak Technical Standard. <sup>(10)</sup>

### Article 5

(1) The fuels intended to power positive-ignition and compression-ignition engines of mobile sources of pollution may be produced, retailed, and imported if complying with the quality requirements laid down in the above Article 4, paragraph 4.

(2) The solid fuels and petroleum-derived liquid fuels, as described above in Article 1, paragraphs a) and b), may be sold directly to operators of combustion plants if complying with the requirements to fuel quality according to above Article 4, paragraphs 1 to 3.

#### Article 6

- (1) Producers, importers, and vendors of fuels intended for use in stationary combustion plant shall ascertain and maintain data on fuel thermal value, water, ash, and sulphur contents, data on specific sulphur contents of any type of solid fuels produced, imported, and sold as well as data on sulphur content of petroleum-derived liquid fuels, and report them to the air protection authority if they are requested to do so. <sup>(1)</sup>
- (2) Producers, importers, and vendors of fuels intended to power mobile sources shall keep records on quantity and quality of sold fuels, and report them to the air protection authority if they are requested to do so.
- (3) Vendors of solid fuels, and vendors of petroleum-derived liquid fuels who directly sell fuels to operators of combustion plants shall
  - a) maintain records on quantity and quality of sold fuels specified in Article 1, paragraphs a), and b) and report them to the air protection authority, if they are requested to do so and save them for a period of three years;
  - b) submit the data on total quantity and quality of sold fuels based on records under paragraph a) above to the District Office for each calendar year regularly by 15 February of the following year, itemized by districts and seats of individual retail places;
  - c) certify the quality of the fuel to the buyer by a document in accordance with Article 4, paragraph 6 above if so requested.

#### Article 7

- (1) The requirements to fuel quality as in terms of the above Article 4, paragraph 4(a) do not apply to
  - a) diesel fuels and petrol to be delivered from stock of national material reserves until 31 December 2004;
  - b) diesel fuels and petrol produced and imported before this Decree enters in force.
- (2) By 31 December 2002, the specific sulphur content of brown coal must not exceed 1,5 g.MJ<sup>-1</sup>.

#### Article 8

The Decree of the Ministry of the Environment of the Slovak Republic No. 268/1997 Z.z. on quality requirements to fuels, maintaining the operating records, and extent of and reporting data to the air protection authority shall be repealed.

#### Article 9

This Decree shall enter into force on 1 June 2000.

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- <sup>(1)</sup> Article 3, paragraph 1(b), of the Act No. 309/1991 Zb. on air protection from polluting substances (Air protection act) as in wording of the Act No. 218/1992 Zb., and the National Council of the Slovak Republic Act No. 148/1994 Z.z.
- <sup>(2)</sup> Regulation of the Government of the Slovak Republic No. 373/1999 Z.z. issuing the Common Customs Tariff duties.
- <sup>(3)</sup> STN ISO 3405 Petroleum products. Determination of distillation characteristics.
- <sup>(4)</sup> Article 2, Commercial Code.
- <sup>(5)</sup> STN EN 45001 (01 5253) General criteria for the operation of testing laboratories. STN EN 45002 (01 5254) General criteria for the assessment of testing laboratories. STN EN 45003 (01 5255) General criteria for the laboratory accreditation bodies.
- <sup>(6)</sup> Article 3, Regulation of the Slovak Government of the Slovak Republic No. 400/1999 Z.z. on stipulating details on technical requirements to other specified products.
- <sup>(7)</sup> STN ISO 8754 Petroleum products; Determination of sulphur content. Energy-dispersive-X-ray fluorescence method. STN EN ISO 14596 Petroleum products. Determination of sulphur content by dispersive-X-ray fluorescence spectroscopy.
- <sup>(8)</sup> STN EN 24260 Petroleum products. Determination of sulphur content by Wickbold combustion method.
- <sup>(9)</sup> STN ISO 14596 Petroleum products. Determination of sulphur content by dispersive-X-ray fluorescence spectroscopy.
- <sup>(10)</sup> STN ISO 4259 Petroleum products; Determination and application of precision data in relation to methods of tests.

(<sup>11</sup>) Article 1, Slovak National Council Act No. 134/1992 Zb. on state administration in air protection as amended by the Act of the National Council of the Slovak Republic No. 222/1996 Z.z. on organization of local state administration, and amendments of certain acts.

**Annex 144/2000 Z.z.**

Annex 1 to the Decree No. 144/2000 Z.z.

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**REQUIREMENTS FOR FUELS TO POWER POSITIVE IGNITION AND COMPRESSION IGNITION ENGINES USED TO PROPULSION OF MOBILE POLLUTING SOURCES AS IN FORCE FROM 1 JANUARY 2001**

Parameter	Unit	Limits*		Test
		Minimum	Maximum	Method
<b>PETROL</b>				
Octane number by research method		95	-	STN EN 25164
Octane number by motor method		85	-	STN EN 25163
Reid vapour pressure, summer period ( 1 May to 30 September)	kPA	-	65	STN EN 12
Distillation: evaporated at 100 °C	% v/v	46	-	STN ISO 3405
evaporated at 150 °C	% v/v	75	-	
Hydrocarbon analysis: - Olefins	% v/v	-	18	STN 656152
- Aromatics		-	42	STN 656152
- Benzene		-	1	STN EN 12177
Oxygen content	% m/m	-	2,7	STN EN 1601
Oxygenates: Methanol; stabilizing agent must be added	% v/v	-	3	STN EN 1601
Ethanol; stabilizing agent may be added	% v/v	-	5	STN EN 1601
Iso-propyl alcohol	% v/v	-	10	STN EN 1601
Tert-butyl alcohol	% v/v	-	7	STN EN 1601
Iso-butyl alcohol	% v/v	-	10	STN EN 1601
Ethers containing 5 or more carbon atoms per molecule	% v/v	-	15	STN EN 1601
Other oxygenates**	% v/v	-	10	STN EN 1601
Sulphur content	mg/kg	-	150	STN EN ISO 14596
Lead content	g/l	-	0,005	STN EN 237
<b>DIESEL FUELS</b>				
Cetane number		51	-	STN EN ISO 5165
Density at 15 °C	kg/m <sup>3</sup>	-	845	STN EN ISO 3675
Distillation: 95 % point	°C	-	360	STN ISO 3405
Polycyclic aromatic hydrocarbons	% m/m	-	11	STN (1)
Sulphur content	mg/kg	-	350	STN EN ISO 14596

-Notes:

-\* The values quoted in the specification are "true values". In the establishment of their limit values the terms of STN EN ISO 4259, Petroleum products - Determination and application of precision data in relation to methods of tests have been applied. in fixing a minimum value, a minimum difference of 2R above zero has been taken into account (R = Reproducibility). The results of individual measurements shall be interpreted on the basis of the criteria described in the STN EN ISO 4259.

-\*\* Other mono-alcohols with a final distillation point not higher than the final distillation point laid down in national specifications or, where these do not exist, in industrial specifications for motor fuels.

(1) Article 5, paragraph 9 of Act No. 264/1999 Z.z. on technical requirements to products, and assessing compliance and on amendments to certain acts.

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**REQUIREMENTS FOR FUELS TO POWER POSITIVE IGNITION  
AND COMPRESSION IGNITION ENGINES USED TO PROPULSION OF MOBILE  
POLLUTING SOURCES AS IN FORCE FROM 1 JANUARY 2005**

Parameter	Unit	Limits*		Test
		Minimum	Maximum	Method
<b>PETROL</b>				
Octane number by research method		95	-	STN EN 25164
Octane number by motor method		85	-	STN EN 25163
Reid vapour pressure, summer period ( 1 May to 30 September)	kPA	-	60	STN EN 12
Distillation: evaporated at 100 °C	% v/v	46	-	STN ISO 3405
evaporated at 150 °C	% v/v	75	-	
Hydrocarbon analysis:				
- Olefins	% v/v	-	18	STN 656152
- Aromatics		-	35	STN 656152
- Benzene		-	1	STN EN 12177
Oxygen content	% m/m	-	2,7	STN EN 1601
Sulphur content	mg/kg	-	50	STN EN ISO 14596
Lead content	g/l	-	0,005	STN EN 237
<b>DIESEL FUELS</b>				
Cetane number		51	-	STN EN ISO 5165
Density at 15 °C	kg/m <sup>3</sup>	-	845	STN EN ISO 3675
Distillation: 95 %	°C	-	360	STN ISO 3405
Polycyclic aromatic hydrocarbons	% m/m	-	11	STN (1)
Sulphur content	mg/kg	-	50	STN EN ISO 14596

## Note:

-\* The values quoted in the specification are "true values". In the establishment of their limit values the terms of STN EN ISO 4259, Petroleum products - Determination and application of precision data in relation to methods of tests have been applied. In fixing a minimum value, a minimum difference of 2R above zero has been taken into account (R = Reproducibility). The results of individual measurements shall be interpreted on the basis of the criteria described in the STN EN ISO 4259.

(1) Article 5, paragraph 9 of Act No. 264/1999 Z.z.