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COMMISSION IMPLEMENTING DECISION

of 7.4.2014

**on the request from Bulgaria for a derogation from the vapour pressure requirements for petrol pursuant to Article 3(4) and (5) of Directive 98/70/EC relating to the quality of petrol and diesel fuels as amended by Directive 2009/30/EC
(Only the Bulgarian text is authentic)**

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THE EUROPEAN COMMISSION,

Having regard to the Treaty on the Functioning of the European Union,

Having regard to Directive 98/70/EC, of the European Parliament and of the Council of 13 October 1998 relating to the quality of petrol and diesel and amending Council Directive 93/12/EEC,¹ in particular Article 3(4) and (5) thereof,

Whereas:

- (1) Bulgaria notified, by letter to the Commission registered on 1 February 2013, a request for derogation to permit the placing on the market during the summer period of petrol containing ethanol from biofuel with a maximum vapour pressure of 60 kPa and, in addition, the permitted vapour pressure waiver specified in Annex III of Directive 98/70/EC ('the Directive') for a period of seven years from 2013. A supporting report was included in addition to the notification letter. Bulgaria submitted further information in June and September 2013.
- (2) According to Article 3(4) of the Directive, Member States in which the derogation referred to in the first subparagraph of Article 3(4) is not applied may, subject to paragraph 5, permit the placing on the market during the summer period of petrol containing ethanol with a maximum vapour pressure of 60 kPa and, in addition, the permitted vapour pressure waiver specified in Annex III, on condition that the ethanol used is a biofuel.
- (3) Under Article 3(5) of the Directive, a Member State that wishes to apply either of the derogations provided for in paragraph 4 must notify the Commission and provide all relevant information. The Commission is to assess the desirability and duration of the derogation, taking account of both:
 - (a) the avoidance of socioeconomic problems resulting from higher vapour pressure, including time-limited technical adaptation needs; and

¹ OJ L 350, 28.12.1998, p.58-68.

- (b) the environmental or health consequences of the higher vapour pressure and, in particular, the impact on compliance with EU legislation on air quality, both in the Member State concerned and in other Member States.
- (4) Furthermore, under Article 3(5), the Commission is to assess the desirability and duration of the derogation requested. If the assessment, taking into account relevant target values, shows that the derogation will result in a lack of compliance with EU legislation on air quality or air pollution, including the relevant limit values and emissions ceilings, the request is to be rejected.
- (5) Directive 2009/30/EC must have been transposed into national law by 31 December 2010 and effectively entered into force on that date in the Member States. Failure to respect the vapour pressure requirements of the Directive after this date constitutes an infringement of EU law unless derogation is in place.
- (6) The assessment of the notification has been conducted in accordance with the Directive and in conformity with the general recommendations for assessment set out in the public Commission document ‘Guidance note on notifications of exemptions from the vapour pressure requirements for petrol pursuant to Article 3(4) of Directive 98/70/EC relating to the quality of petrol and diesel fuels’.
- (7) The Commission noted that certain essential and relevant information was missing in the initial notification, so further elements were requested from Bulgaria in April 2013. This information was insufficient to complete the evaluation, so further information was requested, and a response received on 19 September. Consequently the six months period in which the Commission has to complete its review started on that date.
- (8) The assessment of the notification is to be conducted in accordance with information supplied by the Member State on the basis of common evaluation criteria and certain socioeconomic and environmental criteria.
- (9) In order for the Commission to assess whether the conditions for derogation are met, the Member State requesting a derogation must supply sufficient, relevant and precise figures and facts regarding the requested quantities and years so that the Commission can evaluate and compare the conditions before and after a possible derogation. In particular, the following information must be provided:
- the forecast quantity of petrol to be supplied to retail outlets in the Member State concerned and for which a derogation is sought, during each year for which the derogation is sought, as well as the proportion this represents of the Member State’s total production of petrol, during each calendar year for which the derogation is sought,
 - the quantity of petrol supplied to retail outlets in the Member State in the last calendar year which cannot currently meet the maximum vapour pressure limit and, if applicable, the percentage bioethanol content of that petrol,
 - the quantity of petrol exported in the last calendar year from the Member State concerned and the average vapour pressure of that petrol,

- the forecast quantity of petrol to be supplied to retail outlets in the Member State, together with the percentage bioethanol content if applicable, which would not meet the maximum vapour pressure limit, during each calendar year for which the derogation is sought.
- (10) For assessing the socioeconomic problems, i.e. the social, financial and economic impacts of implementing the maximum vapour pressure of 60 kPa, the Member State requesting derogation has to provide information about the impact on petrol producers and/or petrol suppliers of not having the derogation. This should include:
- a short description of the technical and market-based difficulties of complying with the maximum vapour pressure of 60 kPa and the corresponding percentage of Member State petrol to be supplied to retail outlets, including, if applicable, information on the expected penetration of bioethanol as a constituent of petrol as defined by the Directive,
 - the options available to make the necessary technical adaptations to existing infrastructure and installations for petrol production and supply, the time needed to make such adaptations in order to comply with the maximum vapour pressure of 60 kPa, and the corresponding percentages of Member State petrol to be supplied to retail outlets, together with an assessment of the possibility of importing fuel of the necessary quality given that the EU is a net exporter of petrol,
 - a short description of the implications for the economic operation of the refinery and supply infrastructure, including impacts on employment associated with implementing the above technical adaptations, and
 - The potential disruption to petrol production and supply associated with implementing the above technical adaptations, whereby the possibility of mitigating such disruption by importing petrol of the requisite quality should be taken into account.
- (11) Bulgaria has provided information on the socioeconomic situation which the Commission considers sufficient to evaluate the notification.
- (12) Bulgaria has requested a derogation of the summer gasoline Reid Vapour Pressure (“RVP”) specification to allow for the further addition of ethanol above the current 2% level. In Bulgaria, under Article 42(2) of the Renewable Energy Law (ZEVI) distributors of gasoline are required to blend a defined quantity of ethanol within fuel sold on the Bulgarian market. The ethanol content is required to increase by 1% in each six month period reaching 9% by March 2016.
- (13) Bulgaria has presented the potential economic impacts to achieve the required quality of gasoline during the summer period in the form of on-going increased production costs. These increased on-going production costs are approximately €3 million per year, with a one-off investment requirement of €7 million.
- (14) The derogation relates to an increase in the RVP of gasoline sold in Bulgaria to over 60 kPa during the summer period. The Bulgarian submission states that an assumed 50% of the annual gasoline consumption would be within the summer period. The request is not explicit in defining whether the derogation would be for the full vapour

pressure increase tabulated in Annex III of the Directive or the incremental vapour pressure increase that would arise from increasing the ethanol content above the currently proven capability of 2.8% ethanol (by volume) within gasoline blends without the need for the derogation. Eventually the domestic producer will add ethanol in the form of ETBE once its production facilities have been modified to produce ETBE. Bulgaria has stated that the modifications can only start in 2017 enabling ETBE production from 2019; hence the requested length of the derogation.

- (15) The domestic refiner would find it less profitable to produce lower volatility gasoline pre-blends. This arises from needing to reduce or exclude some gasoline components in the blend as well as more severe processing operations. This would result in annual costs of approximately BGN 6,000,000 (some €3.1 million).
- (16) Bulgaria would appear to suggest that it is technically possible to produce a lower vapour pressure gasoline component; however there would be an economic penalty in doing so as stated above. It is unclear if this is the cost for producing all gasoline during the summer at a lower vapour pressure, or the cost of producing that proportion of the gasoline that is expected to include ethanol within the blend during the summer months for Bulgarian consumption. This implies an increase in gasoline production costs of around €3/m³.
- (17) The costs to produce a lower volatility pre-blend would presumably reduce once the refinery produces ETBE, which is much lower volatility than ethanol. This would suggest that Bulgaria should aim to initiate production of ETBE at the earliest opportunity. It is reasonable to expect a plant revamp project to take several years to complete and to cost at least €5 million. It is understood from the Bulgarian submission that the mandated ethanol requirements were transposed into law in 2011, and the refiner is only able to commence activities that enable the production of ETBE in 2017 with actual production commencing in 2019.
- (18) The 2020 deadline for the derogation would accommodate the proposed schedule for the implementation of ETBE production and guarantee that from the end of the derogation Bulgaria would be able to achieve the requirements for the vapour pressure in petrol for the summer period without the need of a waiver.
- (19) In order to assess the second criterion — compliance with EU air quality and pollution legislation, Member States are asked to provide realistic and reliable predictions of their emissions of non-methane volatile organic compounds (NMVOCs) and state how these predictions compare with the emission ceiling stipulated in Directive 2001/81/EC of the European Parliament and of the Council of 23 October 2001 on national emission ceilings for certain atmospheric pollutants² (the NEC-D). These predictions:
 - have to be consistent with the methodologies permitted by Directive 2001/81/EC for the reporting of emissions and emission projections to the Commission, and
 - have to include an assessment of the proposed derogation for national NMVOC emissions by assessing the changes in emissions in all relevant emitting sectors. As a minimum, this has to cover: (1) the storage of petrol at terminals and its

² OJ L 309, 27.11.2001, p. 22–30.

distribution to service stations; (2) the storage of petrol at service stations; (3) the fuelling of motor vehicles, including accidental spills; (4) evaporative losses for motor vehicles at rest; and (5) evaporative emissions from vehicles in use, so-called 'running losses'.

- (20) NMVOC emissions in Bulgaria were 91.45 kt in 2009 and 93.09 kt in 2010. According to the information provided these values represent a decrease compared to the available values from previous years and earlier predictions. Although these figures are significantly below the values before Bulgaria joined the EU (159.2 kt in 2006), there has been a slight but steady increase over the last three years. Bulgaria's total NMVOC emissions in 2010 were 47% below the national emissions ceiling (175 kt).
- (21) Bulgaria argues that there will not be significant changes in NMVOC emissions due to the waiver permitting higher vapour pressure based on:
- The current emissions are significantly below the ceiling for 2010 and also below the ceiling recently set in the revised Gothenburg Protocol for 2020 (125 kt which is 21% below emissions in 2005);
 - The current contribution of gasoline evaporation, storage, loading, unloading and transportation of petrol; and refining, storage and distribution of oil products in the total NMVOC emissions of the country is estimated as 8.21%;
 - According to data from the only refinery in the country, following industrial analysis and quality controls, there was only one sample found to be non-compliant (following quality control on 193 samples from June to October 2012) with the vapour pressure limit after bioethanol started to be blended with petrol, with an average value of 58.5 kPa. Prior to that, no inconsistencies with the maximum vapour pressure value have been found, according to Lukoil and the Bulgarian Petroleum & Gas association.
 - Bulgaria has reasoned that some measures have been implemented to reduce emissions from the transport of petrol, use and loading/unloading, which are considered to be more stringent than the relevant EU legislation.
- (22) The methods used to report the emissions and allocate them regarding the contribution of different sectors are stated to be in accordance with the methodologies proposed in the NEC-D. It is reported that 8.21% of total NMVOC emissions in 2010 were caused by gasoline evaporation (1.56 %) and storage, loading or unloading and transportation of petroleum products (including petrol) (6.65%). Road transport contributed 9% of the total emissions (including gasoline evaporation). The biggest contributors to NMVOC emissions are reported to be domestic combustion with 34% and agriculture. All these values are consistent with the document submitted to the Commission as part of the obligations under the NEC-D.
- (23) In the supplementary information provided in June 2013, there is an estimation of how the increase in the vapour pressure would affect these values. According to the assumptions and modelling conditions applied, NMVOC emissions from storage of petrol would increase by 8.81%. The activities assessed in the model are stated to belong to the NEC category "Distribution of oil products", which accounted for 2.367

kt NMVOC in 2010 and 2011, according to Bulgaria's National Emissions Inventory. Therefore, an 8.81% increase in this category would mean 0.21 kt NMVOC/year in absolute terms. It is also stated that in the case that emissions from all activities relevant for the waiver increased 8.81% (described as worst case scenario), there would be an increase of 0.67 kt NMVOC/year. For this estimation Bulgaria has taken into account the NAEI for 2010. If the latest NAEI was used, the increase would be 0.70 kt NMVOC/year.

- (24) It is therefore considered unlikely that the increase in NMVOC emissions through the use of petrol with a higher vapour pressure would, be sufficient to compromise Bulgaria's ability to comply with the NEC-D ceiling.
- (25) Concerning the ozone criteria, the Commission has to assess whether the Member State has fulfilled its duties under Directive 2008/50/EC of the European Parliament and of the Council of 21 May 2008 on ambient air quality and cleaner air for Europe³ (Directive 2008/50/EC) to ensure compliance as far as possible with the target value for ozone. In addition, the emissions of ozone precursors in one Member State can contribute to elevated levels of ozone in other Member States. Accordingly, the following information should be provided in the notification:
- The impact of the derogation on ozone concentrations in the Member State requesting derogation compared with the case where no derogation is implemented. Changes in ozone concentration should as a minimum be expressed in a form that enables a simple comparison with the ozone target value in Directive 2008/50/EC. This information usually takes the form of the results of recognised air quality models.
 - The impact of the derogation on ozone concentrations in other Member States.
 - Under Articles 17(1) and (2) of Directive 2008/50/EC, Member States must take all necessary measures not entailing disproportionate costs to ensure that the target value for ozone is attained by 1 January 2010. Where the target value is exceeded, Member States must draw up a programme in accordance with Article 6 of Directive 2001/81/EC and, if appropriate, implement an air quality plan to attain the target value, except where this is not achievable without entailing disproportionate costs. In its notification, the Member State requesting a derogation must explain:
 - (a) How the proposed derogation is compatible with the obligations regarding attainment of the ozone target value,
 - (b) Whether the proposed derogation appears in any air quality plan or programme prepared under Directives 2008/50/EC or 2001/81/EC,
 - (c) Whether it envisages additional measures to reduce VOC emissions that would outweigh any increase in emissions following implementation of the derogation.

³ OJ L 152, 11.6.2008, pp. 1–44.

- (26) The initial waiver request includes various ozone monitoring data, which are compared with the target values in Directive 2008/50/EC. In particular, the 120 µg/m³ 8 hour target value was exceeded more than 25 times per year in two out of six air quality management areas.
- (27) Specifically this was the case in three out of 18 monitoring stations in the period 2009-2011 and four stations in 2012. The values for 2009-2011 are stated to have been averaged.
- (28) Bulgaria's air quality questionnaire also indicates that the long-term objective for health was exceeded in the whole territory in 2011 (i.e. the 8 hour 120 µg/m³ target was exceeded on at least one day that year). Furthermore, a review of previous years' questionnaires shows a similar picture (2007-2010), a trend which may well remain in the future.
- (29) Bulgaria is conducting a programme on emissions to achieve established standards for PM₁₀ and NO₂ for 2011-2014. As NO₂ is an ozone precursor, the waiver request states that its reduction would lead to a reduction in ozone levels. From the information provided about this programme, it can be concluded that NO₂ concentrations have a high seasonal pattern in general for urban areas although the position is less clear in the countryside.
- (30) Additional information submitted by the Bulgarian authorities in September 2013 included the results of a modelling exercise focussed on investigating the potential impacts of the waiver on ozone levels. The modelling has looked at two emission scenarios, with and without the waiver applied. It has looked at both average and maximum hourly ozone levels for the years 2000-2007. The comparison has shown that application of the waiver would have led to an average maximum increase in ozone levels of 0.03% or 0.02 µg/m³ and an absolute maximum increase of 0.4% or 0.2 µg/m³. The report concludes that with such insignificant changes in ground level ozone concentrations with the application of the waiver there will be no change with respect to the 8 hour target value.
- (31) Although a programme for the improvement of air quality is in place, no specific information is provided about how this legislation is expected to affect ozone levels in the future (other than a statement that levels are expected to reduce). However, as this legislation tackles ozone precursors (hence ozone indirectly), and there is no stated evidence of other factors and/or pollutants affecting the reactions (e.g. other precursors such as CO, CH₄) a reduction of ozone levels can be a possibility. It is additionally argued that exposure in urban areas decreases due to the emissions of NO which, after reacting with ozone, forms O₂ and NO₂, and ozone levels would therefore be reduced.
- (32) Bulgaria has modelled the estimated impact that the waiver would have on achieving the target value for ozone. This has indicated that ozone levels are unlikely to be impacted significantly by application of the waiver. An absolute maximum possible increases of 0.2 µg/m³ has been modelled and in general the changes are expected to be considerably lower.
- (33) It is stated that no significant changes in the ozone concentration will occur due to the proposed waiver, either in Bulgaria or in neighbouring countries. The total exposed

population is stated to be 18.7% while the average EU population from urban areas exposed to this pollutant above the target value is 17.3%.

- (34) Additional information submitted in September 2013 provides the results of a modelling exercise looking at the potential impacts of the waiver on ozone levels in Bulgaria and neighbouring Member States. This exercise has utilised three internationally recognised models along with emission estimates developed by a third party. The approach taken and models utilised appear to be suitable for an exercise such as this. However, it should be noted that the modelling exercise has looked at differences in hourly ozone levels and not specifically focussed on how this may impact on compliance with the 8 hour target value (although it is stated that the insignificant impacts on ozone levels mean that there will be no changes in compliance with the target value).
- (35) In conclusion Bulgaria has challenges in meeting the current requirements as regards ozone but is taking action to reach the target value that is "to be attained where possible". On the other hand the modelling shows that future ozone levels are unlikely to be significantly impacted by the waiver.
- (36) For assessing the benzene criteria, Member States have to submit evidence that the air quality limit value for benzene in Directive 2008/50/EC has been attained by 1 January 2010, although this deadline may be extended by five years subject to certain conditions defined in Directive 2008/50/EC. Notifications by Member States must therefore include the following:
- Information regarding any exceeding of the limit value (or limit value plus margin of tolerance) for benzene in air in recent years. This should be based on assessments and reports made under Directive 2008/50/EC (or earlier legislation).
 - Quantification of the expected increase in benzene concentrations at locations where such concentrations may be elevated compared to general background levels and where there may be a greater risk of the limit value being exceeded, together with a short description of the methodology used for this purpose. Locations should include those in the vicinity of service stations or other major sources of benzene emissions such as petrol manufacturing and storage installations.
 - An assessment of the impact of the derogation on compliance with the air quality limits value for benzene in 2010.
 - Where there is a risk of non-compliance with the limit value in 2010, any additional measures to offset the additional emissions due to the derogation and to ensure compliance.
- (37) The waiver request provides information regarding exceedances of the limit value (or limit value plus margin of tolerance) for benzene in recent years as specified in the Commission's guidance note.
- (38) Seventeen stations indicate that benzene annual mean values comply with the limit value (5µg/m³) according to data provided in the derogation request, which was also reported in the ambient air quality assessment under the obligations of Decision 2004/461/EC. According to these measurements, there were no exceedances of this

value in the period covering 2010 to September 2012. Moreover, the request states that the highest recorded concentration was 2.87 µg/m³ in that period, and average values in 2010-2011 were less than half of the limit. This would guarantee, in Bulgaria's estimation, that there is a high level of probability that a waiver in the vapour pressure limit for the summer period would not affect Bulgaria's ability to achieve the limit value for this pollutant.

- (39) In addition to this argument, in the additional information provided in June 2013 by the Bulgarian authorities, there is an estimation of future benzene concentrations with the application of the waiver (and the baseline case scenario without this derogation) based on and valid for the model used for calculating future NMVOC emissions (described above). Bulgaria argues that benzene emissions are proportional to those of NMVOC and would therefore increase 8.81% as well. As Bulgaria's measured levels are reported to be approximately half of the limit value for benzene (5µg/m³), this increase is stated to be insufficient to exceed the limit value for benzene in future years.
- (40) The data provided in the request for the period 2010-2012 appear to be reasonable in concluding that the limit value would not be affected by granting the waiver. Quantitative arguments on future benzene concentrations suggest the same. Whilst the methods are not necessarily as accurate as those that would have been achieved had more specific modelling of different parts of the petrol distribution process also been modelled, they do give a reasonable assurance that the limit value would continue to be met, all other things being equal.

HAS ADOPTED THIS DECISION:

Article 1

The Commission raises no objection to the notification from Bulgaria to permit the placing on the market during the summer period of petrol containing bioethanol with a maximum vapour pressure exceeding 60 kPa by the amounts set out in Annex III to the Directive until 31 December 2020.

Article 2

This Decision shall be invalidated in the event of non-compliance with Union legislation on air quality or air pollution, including the relevant limit values and emission ceilings established during the derogation period.

Any breach of relevant Union legislation as mentioned above will constitute an infringement and be proceeded with according to applicable law.

Article 3

This Decision is addressed to Bulgaria.

Done at Brussels, 7.4.2014

For the Commission
Connie HEDEGAARD
Member of the Commission

