

Brussels, 8.11.2013 C(2013) 7426 final

COMMISSION DECISION

of 8.11.2013

on the request from the Kingdom of Spain 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 Spanish text is authentic]

EN EN

COMMISSION DECISION

of 8.11.2013

on the request from the Kingdom of Spain 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 Spanish text is authentic]

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 fuels and amending Council Directive 93/12/EEC¹, and in particular Article 3(4) and (5) thereof,

Whereas:

- (1) Spain notified, by letter to the Commission registered on 1 February 2013, a request for a derogation to permit the placing on the market during the summer period of petrol containing ethanol, as a biofuel, with a maximum vapour pressure of 60 kPa plus the permitted vapour pressure waiver specified in Annex III of Directive 98/70/EC ('the Directive') for the period until 31 December 2020. A supporting report was included in addition to the notification letter.
- (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 plus 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 a higher vapour pressure, including time-limited technical adaptation needs; and
 - (b) the environmental or health consequences of the higher vapour pressure and, in particular, the impact on compliance with Union legislation on air quality, both in the Member State concerned and in other Member States.
- (4) Furthermore, under Article 3(5), if the Commission's assessment, taking into account relevant target values, shows that the derogation will result in a lack of compliance with Union legislation on air quality or air pollution, including the relevant limit values and emissions ceilings, the request is to be rejected.

OJ L 350, 28.12.1998, pp. 58-68.

- (5) The Directive 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 will constitute an infringement of Union law unless a 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 Spain on 5 May 2013. A response was received on 18 June 2013; consequently the six months period in which the Commission has to complete its review started on that date.
- (8) 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 which is common to all evaluations:
 - 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.
- (9) Spain has provided information on petrol sales, export and imports and distribution which the Commission considers sufficient to evaluate the notification. More specifically Spain has indicated that some 18% of annual petrol sales would contain ethanol subject to the conditions of this derogation.
- (10) To assess the direct socioeconomic problems (which are any social, financial or economic impact of implementing the regulated vapour pressure of 60 kPa), the Member State must provide information on the impact on petrol producers and/or petrol suppliers of not having the derogation. The information required includes:
 - a short description of the technical and market-based difficulties in complying with the regulated maximum vapour pressure of petrol of 60 kPa and the corresponding percentage of Member State petrol to be supplied to retail outlets including, if applicable, information on the expected rate of 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 associated with petrol production and supply, the time it would take to make such adaptations in order to comply with the maximum regulated vapour pressure of 60 kPa and the corresponding percentages of Member State petrol to be supplied to retail outlets. This should include an assessment of imports of fuel of the requisite quality, given that the Union is a net exporter of petrol,
- a short description of the implications on 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. The potential for mitigating such disruption by importing petrol of the requisite quality should be addressed.
- Spain suggests that while it is technically possible to produce a lower vapour pressure (11)petrol component there would be an associated economic penalty. This cost is estimated at between €120 million to €240 million per year. It is unclear if this is the cost for producing all petrol during the summer at a lower vapour pressure, or the cost of producing that proportion which is expected to include ethanol within the blend during the summer months. Assuming the cost of €240 million arises from making a lower vapour pressure pre-blend for the approximately 1 million tonnes per year of gasoline to which ethanol would be added during the summer months, it would suggest the cost is approximately €240 per tonne. Alternatively if the cost is assumed to arise from all 2.5 million tonnes of summer gasoline, irrespective of whether ethanol is blended, the added cost is €96 per tonne. In either case is clear that refineries would find it less economic to produce lower volatility pre-blends which arise from needing to reduce or exclude some petrol components in the blend that have a lower value when processed elsewhere in the refinery. According to Spain these costs of €120 million to €240 million per year to 2020 would result in additional costs of approximately $\notin 0.015$ to $\notin 0.03$ litre.
- (12) Spain states that a uniform petrol pre-blend is required for the efficient use of its supply infrastructure system. Spain has indicated that its supply system needs to accommodate two alternative volatility specifications for petrol. During the transitional period both high and low volatility petrol specifications could be present in the system. In the winter period, domestic petrol volatility would be significantly different to the average 57 kPa reported for exports within system. An alternative would be to change petrol blends. This would however result in the need to export unwanted petrol components which would be difficult and would result in modest sale revenues.
- (13) Spain has indicated that projects to make better use of the petrol components rendered redundant due to the ethanol blending within the refinery would require investments in new refining processes. Spain has not stated the cost of this capital investment and it is not clear if the cost is included in the figures presented as the cost to the industry. It should also be recognized that the additional production of other refined products from these processes may generate additional revenue and thus the investments may be self-funding to some extent.
- (14) More specifically, Spain has suggested some investment projects that refiners might consider. These appear plausible and include an option that would make increasing the volumes of olefins available that could be combined with ethanol to produce ether,

- such as tertiary amyl ethyl ether (TAEE), could be used as an alternative means to add further ethanol to the petrol blend.
- (15) Spain has indicated that it would take until 2015 for these investments to be completed with engineering design taking place in 2013, and with construction and commissioning occurring in 2014 and 2015. The relatively brief period for construction and commissioning supports the view that the investments would not be particularly complex but it is questionable, in the light of the analysis, whether such a timeframe is realistic.
- (16) In its submission, Spain has presented potential difficulties in achieving the required quality of petrol during the summer period. Many of these difficulties would occur in most petrol markets in the Union, such as the requirement to blend ethanol as late in the supply chain as possible and to produce lower Reid Vapour Pressure (RVP) preblends of petrol. However, Spanish refineries are fortunate in having a variety of processing technologies to enable some flexibility for crude oil processing.
- (17) Finally Spain has provided an estimate of the increased costs of petrol to the consumer, of between €0.03 and €0.04 per litre, should the derogation not be granted, due to need to continue to use ethyl tert-butyl ether (ETBE) instead of bioethanol and also for not having the possibility to use domestic feedstocks for the production of bioethanol.
- (18) In conclusion, the Commission takes note of the additional costs of producing lower volatility pre-blends, the difficulties of exporting unwanted petrol components as well as the potential refinery investments needs. On the basis of the submitted information, the Commission has no reason to question the notification as concerns the relevant socioeconomic criteria.
- (19) In order to assess the second criterion compliance with Union 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 (NECD). 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 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) Spain has provided the estimated effect on NMVOC emissions, as a result of applying an increased vapour pressure waiver of 8kPa, to both the current baseline petrol use (an increase from 57kPa to 65kPa) and the maximum permitted value (from 60kPa to 68kPa). Based on data measured in 2010 the results generated from this simulation indicate that the total NMVOC emissions from all sources would increase by 0.04% in

² OJ L 309, 27.11.2001, p. 22–30.

- due to vapour pressure increasing from 57kPa to 65kPa, and by 0.06% for an increase from 60kPa to 68kPa. Those simulated values show a decrease if compared to the projections included in the original submission, which was produced before 2010.
- Spain has stated that its implementation of the Second National Emission Reduction (21)Programme includes policies and measures to comply with the NECD. The reduction in NMVOC emissions is aimed primarily at sectors that use solvents as well as road transport and residential combustion plant sectors. It also states that Stage II VOC recovery in petrol stations has been developed and implemented and as a result, NMVOC emissions were reduced from 2010 to 2011. However, the additional information provided in February 2013 does not state the specific reduction resulting from the implementation of this law, to compare it with the Spanish forecast of a 3 579t reduction in 2010. Regarding the activities related to the petrol distribution chain, the measured figures are slightly higher than those in the last projection; although they are broadly similar. The revised figures following the revised methodology were lower than previous estimates. The updated calculations took into account average monthly temperatures in different provinces and the degree of implementation of Stage I and II vapour recovery techniques. Overall, the estimates provided by Spain seem to be reasonable, taking into account the differences in methodologies and data available. The significant reduction in forecast emissions seems consistent with the use of a more detailed methodology for estimating emissions from storage at refineries and the assumed uptake of e.g. Stage II petrol vapour recovery in Spain.
- (22) In the information submitted in June 2013, Spain included an update on total projected NMVOC emissions, for both a "with measures" and "with additional measures" scenario. The projected contribution of the activities relevant to the waiver (especially road transport and extraction and distribution of fossil fuels) expected to decline for both scenarios.
- (23) The Commission finds that the methods employed by Spain appear to be both appropriate and sufficient, and that Spain has provided reasonable estimates. The significant reduction in forecast emissions seems consistent with use of a more detailed methodology for estimating emissions from storage at refineries and assumed uptake of e.g. Stage II petrol vapour recovery in Spain. The Commission raises no objection to this part of the notification from Spain.
- 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 Europe 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 making
 the notification 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.

- pursuant to Articles 17(1) and 17(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.
- (25) Firstly, Spain has indicated that the proposed waiver for petrol vapour pressure will not result in an increase in tropospheric ozone. The reasons for this claim are:
 - NMVOC emissions are only one of many ozone precursors.
 - the additional NMVOC emissions associated with implementation of a vapour pressure waiver are negligible.
 - the uncertainty in the models would exceed the uncertainty in the emissions.
 - emissions of other ozone precursors (CO, NOX, CH4, CO2 and PM) do not change or even decrease when bioethanol is included in petrol.
 - to comply with the long-term objectives for ozone established in Directive 2008/50/EC, air quality improvement plans have been implemented that pay particular attention to the reduction of ozone precursors in industrial areas (industrial plants and refineries), cities (traffic) and regions. Furthermore, a National Air Quality Improvement Plan for ozone was approved in November 2011.
- (26) The information provided to the Commission indicates that the monitoring of ozone concentrations has been undertaken in Spain for the period 2004-2011, and has been broken down by region and zone. The document states that these data "...will not be altered by the approval of the waiver on petrol vapour pressure".
- (27) Spain has presented annual data for the exceeding stations for the period 2004-2011; annual concentrations classified geographically and in terms of type of station and area for the period 2001-2011; and monthly and seasonal concentrations for 2011. This is used to illustrate how the seasonal characteristics of this pollutant and how exceedances and ozone levels have been increasing through the years, especially in the areas with higher insolation (Mediterranean coast and southern Spain).
- (28) Information submitted to the Commission indicates that the annual trend (2001-2011) of ozone, NO₂ and benzene concentrations show a downward trend for ozone precursors but not for ozone.
- (29) For the future, outputs from the ozone modelling have been into account employing a baseline (current situation) and a scenario with the introduction of the vapour pressure waiver:

The current baseline for Spain shows:

- 1.7±0.4 average number of days for which the maximum 8-hour surface ozone average exceeds 120 μg/m³ per year ('exceedance days');
- 43%±10% of grid cells are subject to exceedance days;
- an average surface ozone concentration of $67\pm0 \,\mu\text{g/m}^3$;
- an average maximum 8-hour surface ozone concentration of 86±1 μg/m³.

The scenario with the introduction of a waiver:

- 1.01%±0.41% increase in the number of exceedance days per year;
- 0.03%±0.00% increase in average surface ozone concentration;
- 0.03%±0.00% increase in average maximum 8-hour surface ozone concentration.
- (30) Taking into account the above baseline, and scenario with the introduction of a waiver, the modelling outputs suggest that there would be a very small increase in the average surface ozone concentration as a result of a waiver. Although this is inconsistent with the assertion in the notification that there will be no impact, the modelling demonstrates that, in fact, a very small increase may take place. However, given the uncertainties and limitations of the modelling, which in any case results in a very small increase, which will be countered by the recently approved 2011 National Air Quality Improvement Plan, the Commission, on balance, does not raise an objection to this part of the notification from Spain.
- (31) 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 5 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.
- (32) Spain assumes that the derogation will not have any major impact on the air pollution limit for benzene as the limit is exceeded in only one problematic area because of industrial production and not because of transport. Similarly, Spain considers that the application of the proposed waiver for an increase in petrol vapour pressure will not result in an increase in tropospheric benzene concentrations.

- (33) No benzene concentration modelling has been undertaken for the waiver request. The notification includes reasons for not undertaking benzene concentration modelling being:
 - benzene precursors come from a range of sources other than petrol.
 - due to the unique characteristics of the production processes of benzene, it is very difficult to apportion the benzene emissions to each precursor and original source.
 - the presence of bioethanol in petrol decreases benzene emissions from vehicle exhaust fumes.
 - the notification states that Spain does not exceed the limit values for atmospheric benzene concentrations, which are listed in the national legislation that transposed Directive 2008/50/EC, and does not expect that to change with application of the waiver.
- (34) Information provided by Spain includes details of the monitoring of benzene concentrations. Actual concentration data indicates that there have been no exceedences of the limit value and margin of tolerance in any zones in any of the years that data has been provided for (2003-2011), while the number of measuring stations has been increasing. Since 2009 annual mean concentrations for all stations have been below $1 \,\mu\text{g/m3}$.
- (35) Spain has demonstrated that the limit values for benzene are not being exceeded, and it is the Commission's view that it is unlikely that the waiver would lead to the limit value being exceeded. The Commission raises therefore no objection to this part of the notification from Spain.
- (36) Spain has requested a derogation until the 31 December 2020. Given the need to grant investment certainty to refiners and biofuel producers which is to be linked to the targets set in Article 7a of this Directive and Article 3 of Directive 2009/28/EC concerning renewable energy, this period appears justifiable.

HAS ADOPTED THIS DECISION:

Article 1

The Commission raises no objection to the notification from the Kingdom of Spain 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 only to the Kingdom of Spain. Done at Brussels, 8.11.2013

For the Commission Connie HEDEGAARD Member of the Commission