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GrowthEnergy.org

May 10, 2010

**Mr. James N. Goldstene**  
**Executive Officer, California Air Resources Board**  
**1001 I Street, 23rd Floor**  
**Sacramento, California 95812**

By Hand and Electronic Mail

**Re: Petition to Amend the Low-Carbon Fuel Standard Regulation Pursuant to Cal. Gov't Code § 11340.6**

Dear Mr. Goldstene:

On behalf of Growth Energy, an association of the nation's leading ethanol manufacturers and other companies who serve the nation's need for alternative fuels, I respectfully petition for amendments to the California low-carbon fuel standard ("LCFS") regulation published in title 17 of the *California Code of Regulations* at 17 C.C.R. §§ 9548-95490. That regulation was approved by the California Air Resources Board ("CARB" or "the Board") in April 2009, and you took final action with respect to the relevant provisions of the LCFS regulation in November 2009. This petition is submitted pursuant to section 11340.6 of the California Government Code. It is based upon data and analysis that has become available to Growth Energy within the last two weeks.<sup>1</sup>

The specific amendments to the LCFS regulation proposed by Growth Energy are as follows:

1. An amendment to the LCFS regulation that would take effect no later than December 31, 2010, that would eliminate the "Land Use or Other Indirect Effect" carbon intensity values assigned to the corn ethanol pathways in Table 6 in section 95486 ("Table 6") for corn ethanol used to comply with the LCFS regulation in 2011 and 2012.

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<sup>1</sup> The relevant new developments are also discussed in a letter to ARB from the Renewable Fuels Association ("RFA") dated April 28, 2010, which, while not formally requesting action under the Government Code, also recommends an immediate change in the LCFS regulation. The RFA letter is included as an attachment to this petition.

2. As an alternative to the amendment presented above in paragraph 1, an amendment to the LCFS regulation that would take effect no later than December 31, 2010, and that would replace the 30 gram of carbon dioxide-equivalent emissions per megajoule ("g/mj") value in Table 6 for corn ethanol pathways with 15.1 or 13.9 g/mj, for corn ethanol used to comply with the LCFS regulation in 2011 and 2012.

3. If the amendment presented in paragraph 1 is not adopted, then in addition to the amendment presented in paragraph 2, an amendment to the LCFS regulation that would take effect no later than September 30, 2010, and that would require the Executive Officer to take final action on a Method 2A or Method 2B submittal under section 95486 within 90 days of his receipt of a complete submittal pursuant to Method 2A or Method 2B.

The change in paragraph 1 above would be effected by replacing "30" in the indirect emissions values for corn ethanol in Table 6 with "0." Changes in regulatory text sought in paragraphs 2 and 3 of the petition are shown in Exhibit 1. The balance of this letter and the attached exhibits provide the rest of the information required by section 11340.6 of the Government Code.

## **I. Authority to Amend the LCFS Regulation and Requirements of the Government Code**

Sections 39600-39601 of the Health & Safety Code empower the Board to adopt regulations in accordance with the California Administrative Procedure Act ("the APA"). The power to adopt regulations brings with it the power to amend regulations. Except when the right to do so is otherwise restricted, section 11340.6 of the Government Code permits any interested person to seek amendment to rules adopted by the Board. There is no statutory impediment to consideration of this petition on its merits. A response is therefore required in the manner described in your recent response to another petition under section 11340.6 of the Government Code, in which you stated as follows:

Under Government Code section 11340.7, the State agency within 30 days may grant or deny the petition in part, and may grant any other relief or take any other action as it may determine to be warranted by the petition. It must also indicate why the agency has reached its decision in writing and if it grants the petition, it must schedule the matter for public hearing in accordance with the notice and hearing requirements of the APA.

Letter to M. Steele from J. Goldstene, Feb. 11, 2010 at 1 n.1 (*see* Exhibit 2). If you determine that you lack authority under sections 39515 and 39516 to consider and to grant any aspect of this petition, Growth Energy requests that (i) you refer this petition to the Board, and (ii) the Board grant this petition.

## **II. Grounds for Amendment of the LCFS Regulation.**

The Board adopted the LCFS regulation as an early-action measure to implement the Global Warming Solutions Act of 2006, codified at sections 38500-38599 of the Health & Safety Code (the "2006 Act"). The Legislature directed ARB to use the "best available economic and scientific information" when adopting regulations to implement the 2006 Act. Health & Safety Code § 38652 (e).

During the LCFS rulemaking, ARB selected models developed by the Global Trade Analysis Project ("GTAP") to estimate the indirect emissions impact of the use of corn ethanol to comply with the LCFS regulation. As you explained in announcing the use of GTAP at the start of the LCFS rulemaking:

To assess the emissions from land use changes, staff used the Global Trade Analysis Project (GTAP) [model] to estimate [greenhouse gas, or "GHG"] emissions impact. ... In general, the [GTAP] model evaluates the worldwide land use conversion associated with the production of crops for fuel production. Different types of land use have different rates of storing carbon. In general, multiplying the changes in land use times an emission factor per land conversion type results in an estimate of the GHG emissions impacts of land conversions.

Notice of Public Hearing to Consider Adoption of a Proposed Regulation to Implement the Low Carbon Fuel Standard (dated Feb. 24, 2009) at 8. The suite of the GTAP models used in last year's LCFS regulation is specified in the regulation at 17 C.C.R. §95481(a)(20.5), and is called in the regulation the "February 2009" version of GTAP.

The GTAP modeling system was developed by the faculty and staff of the Department of Agricultural Economics at Purdue University. It should be noted in this regard that at least one GTAP expert at Purdue (Dr. Thomas Hertel) advised the Board at the inception of the regulatory process that the use of GTAP to select single-point carbon intensity values might be less defensible than other uses of the GTAP system and could be considered arbitrary. Last month researchers at Purdue led by Professor Wallace E. Tyner reported the development of a new and, in their opinion, improved version of the GTAP modeling system, called GTAP-BIO-ADV. Their research was partially funded by the Argonne National Laboratory. A final report summarizing the changes made in the GTAP modeling system has been prepared and is attached to this petition as Exhibit 3. Consistent with Dr. Hertel's advice during the rulemaking process, the new GTAP report presents a range of indirect land-use emissions values for corn ethanol, and invites the reader to evaluate the range of outputs and the assumptions that produce the different outputs.<sup>2</sup>

As indicated in the new report from the GTAP researchers at Purdue, the indirect emissions impact that Table 6 attributes to corn ethanol (which is based on the February 2009 version of GTAP) is significantly overstated, based on the results of GTAP-BIO-ADV. Table 6 assigns an indirect carbon intensity value to corn ethanol of **30 g/mj**. Based on certain assumptions about growth in yield and population, the average indirect land-use emissions that can properly be attributed to corn ethanol using the updated GTAP modeling system is **13.9 g/mj**, or less than half the level used in Table 6, measured in g/mj of carbon intensity. The marginal carbon intensity value that the new analysis based on GTAP-BIO-ADV would attribute to corn ethanol's indirect effects under those same assumptions about yield and

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<sup>2</sup> It should be noted that Growth Energy does not agree with some of the fundamental assumptions made in indirect land-use change ("ILUC") theory applied in the LCFS rulemaking, and that Growth Energy believes that the final LCFS regulation failed to comply with the 2006 Act and other legal requirements, even before publication of the new work on GTAP discussed in this petition.

population growth is **15.1 g/mj**. The Board should not overlook this important change in the results that are produced by the GTAP modeling system using updated data, which was not available to the Board when it approved the LCFS regulation, nor available to the public during the post-hearing review process last summer and fall.

Growth Energy does not believe that the economic and scientific bases for attribution of indirect emissions impacts to corn ethanol usage are adequate, as explained in comments submitted to ARB last year. Putting that disagreement with the Board's overall approach to the side, however, it should be clear that ARB must reconsider Table 6 before the LCFS regulation takes full effect at the start of 2011. Discussing the carbon intensity values developed last year, one consultant for ARB testified as follows at the April 2009 Board hearing:

[I]f we make a mistake in one direction in estimating these numbers, we'll use too much of a biofuel that's actually higher carbon [than] we thought and will therefore increase global warming. And if we use numbers that are too low, then we'll use too little of a biofuel that's lower carbon than we thought and will therefore increase global warming.

See April 2009 Hearing Transcript, *available at* <http://www.arb.ca.gov/board/mt/2009/mt042309.pdf>, at 73-74. As the same witness pointed out, "the cost to the world of being wrong in both directions is fairly symmetrical," and "there's no obvious conservative direction" to take in order to minimize the risks and costs of error. *Id.* at 74.

There is debate today about how to conduct a full lifecycle emissions analysis of transportation fuels. At this point, however, it should be clear that the GTAP modeling framework as adapted to a lifecycle analysis for corn ethanol has changed significantly since 2009. Moreover, the results produced by the GTAP systems are highly dependant on some assumptions that (in the latest report from Purdue) are not fully documented or explained. For example, it is far from clear whether what the new report calls the "yield effect" on food consumption is consistent with historical data. The selection of a population growth rate in the new iteration of the model is also not fully explained, and the new model appears to continue the assumption in the old model that forest land is converted in roughly the same proportion to all other land types. The new model is therefore likely to overstate the impact of corn ethanol usage on greenhouse gas emissions, accepting all other assumptions made in the ILUC theory. The new GTAP system may be an improvement over the February 2009 version, but the risk of error that punishes corn ethanol without a proper scientific basis remains great.

Given the risk of error, Growth Energy believes that the best course would be to eliminate any indirect emissions penalty for ethanol, and perhaps for all other biofuels, for at least the first two years of the LCFS compliance period (2011 and 2012), so that the science can catch up with regulatory process. Such a deferral of indirect emissions assessments will give the Board's external expert working groups time to formulate and present recommendations for full lifecycle analysis to the Board. A decision to defer ILUC-based emissions penalties in Table 6 for a full two years should be made now, so that the regulated parties can develop initial compliance plans with the LCFS regulation that are not based on clearly mistaken ILUC-based penalties. Assuming that the expert working groups can report to the Board by the end of the current year and recommend appropriate reforms in lifecycle emissions assessments at

that time, and that the Board can act on those recommendations in early 2011, then revised carbon intensity values could be included in Table 6 in early 2011 to take effect in 2013.

Even if ARB maintains the view (not shared by Growth Energy) that there is surely some indirect emissions impact from corn ethanol use, and that the indirect emissions value must be "greater than zero," there should be no disagreement that the February 2009 version of the GTAP modeling system on which the LCFS regulation is currently based is now obsolete. When the GTAP modeling system is updated with what the new Purdue report calls "model improvements" and with a 2006 data base, there is a substantial reduction in the carbon intensity values that the Purdue team believes can credibly be assigned to corn ethanol. (*See, e.g.*, Exhibit 3, Table 20 at p. 46.) The use of a 2006 data base seems itself to be questionable, but the availability of that data set certainly shows that the older data set used in the February 2009 version of the GTAP modeling system is no longer the "best available economic and scientific information." Health & Safety Code § 38652 (e). Surely, those who believe that some "non-zero" value needs to be assigned to indirect emissions from the use of biofuels would agree that the 30 g/mj value in Table 6 is not the correct or most reliable "non-zero" value, and must be changed in order to avoid a serious mistake.

Based on the new work at Purdue (but without agreeing with the premise that corn ethanol must be assigned some indirect land-use change emissions impact), if the Board believes that a "non-zero" value for indirect emissions must remain in Table 6, Growth Energy believes that consistency with the "best available" science requirement of the 2006 Act mandates the replacement of the 30 g/mj value with either 13.9 or 15.1 g/mj, depending on whether ARB decides to use average or marginal emissions values. Such a change should be made now, with the expectation that the expert working group and the Board will be able to revisit the issue in time to make any necessary further changes for biofuels usage after 2012. If such a change is not made now, the LCFS regulation will take full effect in a few months' time using carbon intensity values that are simply no longer credible.<sup>3</sup>

In the event that ARB decides not to establish a two-year moratorium on the use of indirect emissions impacts for corn ethanol, Growth Energy requests two further regulatory changes in addition to the reduction in the indirect emissions values assigned to corn ethanol in 2011 and 2012. First, given the importance of prompt action on revisions to the carbon intensity values assigned to alternative fuels, Growth Energy also requests that section 95486 be revised to include a 90-day deadline for action on Method 2A and Method 2B applications. Second, in light of the rapid pace of developments in the GTAP modeling structure, Growth Energy believes it would be appropriate to amend the LCFS regulation to make it clear that the Executive Officer should permit the use of updated versions of the GTAP models in the Method 2A and Method 2B procedures for determining carbon intensity.

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<sup>3</sup> During the rulemaking process that Growth Energy seeks, it is possible that other interested parties could come forward with data and analysis to support changes in the indirect land-use change values assigned to ethanol produced from sugar cane. To avoid proliferation of proceedings, Growth Energy recommends that any such changes sought in the indirect emissions values assigned to ethanol produced from sugar cane be presented without delay pursuant to Government Code § 11340.6. Growth Energy would vigorously oppose any action with respect to such a petition concerning sugar cane ethanol that might result in a delay in consideration of amendments sought in this petition.

The dates specified for final action to amend the current regulation presented on pages one and two of this letter (by December 31, 2010, for the amendments to Table 6, and by September 20, 2010 for the Method 2A/2B amendments) are critical to the objectives of this petition. Any delay from those dates will therefore mean effective denial of the petition. ARB should proceed with the publication of a notice for a public hearing to consider the changes requested here as soon as possible, and certainly no later than the 30-day period allowed by the Government Code for action on petitions of this type.

\* \* \* \*

Thank you for considering this petition. Please contact me at 605-965-2375 if you have any questions, or if further steps are required for consideration of this petition by you or by the Board.

Sincerely,



David Bearden  
General Counsel

cc: Ellen Peter, Esquire

## **Exhibit 1**

Table 6. Carbon Intensity Lookup Table for Gasoline and Fuels that Substitute for Gasoline.

Fuel	Pathway Description	Carbon Intensity Values (gCO <sub>2</sub> e/MJ)		
		Direct Emissions	Land Use or Other Indirect Effect	Total
Gasoline	CARBOB – based on the average crude oil delivered to California refineries and average California refinery efficiencies	95.86	0	95.86
Ethanol from Corn	Midwest average; 80% Dry Mill; 20% Wet Mill; Dry DGS	69.40	30 <u>15.1</u> or <u>13.9</u>	99.40 <u>84.5</u> or <u>83.3</u>
	California average; 80% Midwest Average; 20% California; Dry Mill; Wet DGS; NG	65.66	30 <u>15.1</u> or <u>13.9</u>	95.66 <u>80.76</u> or <u>79.56</u>
	California; Dry Mill; Wet DGS; NG	50.70	30 <u>15.1</u> or <u>13.9</u>	80.70 <u>65.8</u> or <u>64.6</u>
	Midwest; Dry Mill; Dry DGS, NG	68.40	30 <u>15.1</u> or <u>13.9</u>	98.40 <u>83.5</u> or <u>82.3</u>
	Midwest; Wet Mill, 60% NG, 40% coal	75.10	30 <u>15.1</u> or <u>13.9</u>	105.10 <u>90.2</u> or <u>89.0</u>
	Midwest; Wet Mill, 100% NG	64.52	30 <u>15.1</u> or <u>13.9</u>	94.52 <u>79.62</u> or <u>78.42</u>
	Midwest; Wet Mill, 100% coal	90.99	30 <u>15.1</u> or <u>13.9</u>	120.99 <u>106.09</u> or <u>104.89</u>
	Midwest; Dry Mill; Wet, DGS	60.10	30 <u>15.1</u> or <u>13.9</u>	90.40 <u>75.2</u> or <u>74.0</u>



	California; Dry Mill; Dry DGS, NG	58.90	<del>30</del> <u>15.1 or</u> <u>13.9</u>	<del>88.90</del> <u>74.0 or</u> <u>72.8</u>
	Midwest; Dry Mill; Dry DGS; 80% NG; 20% Biomass	63.60	<del>30</del> <u>15.1 or</u> <u>13.9</u>	<del>93.60</del> <u>78.7 or</u> <u>77.5</u>
	Midwest; Dry Mill; Wet DGS; 80% NG; 20% Biomass	56.80	<del>30</del> <u>15.1 or</u> <u>13.9</u>	<del>86.80</del> <u>71.9 or</u> <u>70.7</u>
	California; Dry Mill; Dry DGS; 80% NG; 20% Biomass	54.20	<del>30</del> <u>15.1 or</u> <u>13.9</u>	<del>84.20</del> <u>69.3 or</u> <u>68.1</u>
	California; Dry Mill; Wet DGS; 80% NG; 20% Biomass	47.44	<del>30</del> <u>15.1 or</u> <u>13.9</u>	<del>77.44</del> <u>62.54</u> or <u>61.34</u>
Ethanol from Sugarcane	Brazilian sugarcane using average production processes	27.40	46	73.40
	Brazilian sugarcane with average production process, mechanized harvesting and electricity co-product credit	12.40	46	58.40
	Brazilian sugarcane with average production process and electricity co-product credit	20.40	46	66.40
Compressed Natural Gas	California NG via pipeline; compressed in CA	67.70	0	67.70
	North American NG delivered via pipeline; compressed in CA	68.00	0	68.00
	Landfill gas (bio-methane) cleaned up to pipeline quality NG; compressed in CA	11.26	0	11.26
	Dairy Digester Biogas to CNG	13.45	0	13.45
Liquefied Natural Gas	North American NG delivered via pipeline; liquefied in CA using liquefaction with 80% efficiency	83.13	0	83.13
	North American NG delivered via pipeline; liquefied in CA using liquefaction with 90% efficiency	72.38	0	72.38

	Overseas-sourced LNG delivered as LNG to Baja;re-gasified then re-liquefied in CA using liquefactionwith 80% efficiency	93.37	0	93.37
	Overseas-sourced LNG delivered as LNG to CA;re-gasified then re-liquefied in CA using liquefaction with 90% efficiency	82.62	0	82.62
	Overseas-sourced LNG delivered as LNG to CA;no re-gasification or re-liquefaction in CA	77.50	0	77.50
	Landfill Gas (bio-methane) to LNG liquefied in CA using liquefaction with 80% efficiency	26.31	0	26.31
	Landfill Gas (bio-methane) to LNG liquefied in CA using liquefaction with 90% efficiency	15.56	0	15.56
	Dairy Digester Biogas to LNG liquefied in CA using liquefaction with 80% efficiency	28.53	0	28.53
	Dairy Digester Biogas to LNG liquefied in CA usingliquefaction with 90% efficiency	17.78	0	17.78
Electricity	California average electricity mix	124.10	0	124.10
	California marginal electricity mix of natural gas andrenewable energy sources	104.71	0	104.71
Hydrogen	Compressed H2 from central reforming of NG (includes liquefaction and re-gasification steps)	142.20	0	142.20
	Liquid H2 from central reforming of NG	133.00	0	133.00
	Compressed H2 from central reforming of NG (no liquefaction and re-gasification steps)	98.80	0	98.80
	Compressed H2 from on-site reforming of NG	98.30	0	98.30
	Compressed H2 from on-site reforming with renewable feedstocks	76.10	0	76.10

(c) *Method 2A – Customized Lookup Table Values (Modified Method 1).*

Under Method 2A, the regulated party may propose, for the Executive Officer's written approval pursuant to section 95486(f), modifications to the GTAP Model or to one or more inputs to the CA-GREET model used to generate the carbon intensity values in the Method 1 Lookup Table.

For any of its transportation fuels subject to the LCFS regulation, a regulated party may propose the use of Method 2A to determine the fuel's carbon intensity, as provided in this section 95486(c). For each fuel subject to a proposed Method 2A, the regulated party must obtain written approval from the Executive Officer for its proposed Method 2A before the regulated party may use Method 2A for determining the carbon intensity of the fuel. The Executive Officer's written approval may include more than one of a regulated party's fuels under Method 2A.

The Executive Officer may not approve a proposed Method 2A unless the regulated party and its proposed Method 2A meet the scientific defensibility, "5-10" substantiality, and data submittal requirements specified in section 95486(e)(1) through (3) and the following requirements:

- (1) The proposed modified GTAP Model or CA-GREET inputs must accurately reflect the conditions specific to the regulated party's production and distribution process;
- (2) The proposed Method 2A uses only the inputs that are already incorporated in CA-GREET and does not add any new inputs (e.g., refinery efficiency); and
- (3) In lieu of use of the GTAP Model or a modified GTAP Model, the regulated party ~~must~~ may request the Executive Officer to conduct an analysis or modeling to determine the new pathway's impact on total carbon intensity due to indirect effects, including land-use changes, as the Executive Officer deems appropriate. ~~The Executive Officer will use the GTAP Model (February 2009), which is incorporated by reference, or other model determined by the Executive Officer to be at least equivalent to the GTAP Model (February 2009).~~

(d) *Method 2B – New Pathway Generated by California-Modified GREET (v.1.8b).*

Under Method 2B, the regulated party proposes for the Executive Officer's written approval the generation of a new pathway using the CA-GREET model as provided for in this provision and the GTAP Model or a modified GTAP model. The Executive Officer's approval is subject to the requirements as specified in section 95486(f) and the following requirements:

- (1) For purposes of this provision, "new pathway" means the proposed full fuel-cycle (well-to-wheel) pathway is not already in the ARB Lookup

Table specified in section 95486(b)(1), as determined by the Executive Officer;

- (2) The regulated party must demonstrate to the Executive Officer's satisfaction that the CA-GREET can be modified successfully to generate the proposed new pathway. If the Executive Officer determines that the CA-GREET model cannot successfully generate the proposed new pathway, the proponent-regulated party must use either Method 1 or Method 2A to determine its fuel's carbon intensity;
  - (3) The regulated party must identify all modified parameters for use in the CA-GREET for generating the new pathway;
  - (4) The CA-GREET inputs used to generate the new pathway must accurately reflect the conditions specific to the regulated party's production and marketing process; and
  - (5) In lieu of use of the GTAP Model or a modified GTAP Model, the The regulated party ~~must~~ may request the Executive Officer to conduct an analysis or modeling to determine the new pathway's impact on total carbon intensity due to indirect effects, including land-use changes, as the Executive Officer deems appropriate. ~~The Executive Officer will use the GTAP Model (February 2009), which is incorporated by reference, or other model determined by the Executive Officer to be at least equivalent to the GTAP Model (February 2009).~~
- (e) *Scientific Defensibility, Burden of Proof, Substantiality, and Data Submittal Requirements and Procedure for Approval of Method 2A or 2B.* For a proposed Method 2A or 2B to be approved by the Executive Officer, the regulated party must demonstrate that the method is both scientifically defensible and, for Method 2A, meets the substantiality requirement, as specified below:
- (1) *Scientific Defensibility and Burden of Proof.* This requirement applies to both Method 2A and 2B. A regulated party that proposes to use Method 2A or 2B bears the sole burden of demonstrating to the Executive Officer's satisfaction, that the proposed method is scientifically defensible.
    - (A) For purposes of this regulation, "scientifically defensible" means the method has been demonstrated to the Executive Officer as being at least as valid and robust as Method 1 for calculating the fuel's carbon intensity.
    - (B) Proof that a proposed method is scientifically defensible may rely on, but is not limited to, publication of the proposed Method 2A or 2B in a major, well-established and peer-reviewed scientific journal (e.g., Science, Nature, Journal of the Air and Waste Management Association, Proceedings of the National Academies of Science).

- (2) *"5-10" Substantiality Requirement.* This requirement applies only to a proposed use of Method 2A, as provided in section 95486(c). For each of its transportation fuels for which a regulated party is proposing to use Method 2A, the regulated party must demonstrate, to the Executive Officer's satisfaction, that the proposed Method 2A meets both of the following substantiality requirements:
- (A) The source-to-tank carbon intensity for the fuel under the proposed Method 2A is at least 5.00 grams CO<sub>2</sub>-eq/MJ less than the source-to-tank carbon intensity for the fuel as calculated under Method 1. "Source-to-tank" means all the steps involved in the growing/extraction, production and transport of the fuel to California, but it does not include the carbon intensity due to the vehicle's use of the fuel; "source-to-tank" may also be referred to as "well-to-tank" or "field-to-tank."
  - (B) The regulated party can and is expected to provide in California more than 10 million gasoline gallon equivalents per year (1,156 MJ) of the regulated fuel. This requirement applies to a transportation fuel only if the total amount of the fuel sold in California from all providers of that fuel exceeds 10 million gasoline gallon equivalents per year.
- (3) *Data Submittal.* This requirement applies to both Method 2A and 2B. A regulated party proposing Method 2A or 2B for a fuel's carbon intensity value must meet all the following requirements:
- (A) Submit to the Executive Officer all supporting data, calculations, and other documentation, including but not limited to, flow diagrams, flow rates, CA-GREET calculations, equipment description, maps, and other information that the Executive Officer determines is necessary to verify the proposed fuel pathway and how the carbon intensity value proposed for that pathway was derived;
  - (B) All relevant data, calculations, and other documentation in (A) above must be submitted electronically, such as via email or an online web-based interface, whenever possible;
  - (C) The regulated party must specifically identify all information submitted pursuant to this provision that is a trade secret; "trade secret" has the same meaning as defined in Government Code section 6254.7; and
  - (D) The regulated party must not convert spreadsheets in CA-GREET containing formulas into other file formats.

(D) (f) The Executive Officer shall take final action a request for modification of a fuel's carbon intensity value using Method 2A or Method 2B within 90 days of a complete submittal of such a request. The Executive Officer shall notify a party making a submittal using Method 2A or Method 2B within 15 days of receipt of such a submittal whether he has found the submittal to be complete.

## **Exhibit 2**



# Air Resources Board



Linda S. Adams  
Secretary for  
Environmental Protection

Mary D. Nichols, Chairman  
1001 I Street • P.O. Box 2815  
Sacramento, California 95812 • [www.arb.ca.gov](http://www.arb.ca.gov)

Arnold Schwarzenegger  
Governor

(Via email and U.S. Mail)

February 11, 2010

Mr. Michael J. Steel, Esq.  
Morrison Foerster  
425 Market Street  
San Francisco, California, 94105-2482  
[msteel@mofo.com](mailto:msteel@mofo.com)

Re: Response to January 11, 2010, Petition Filed by Associated General Contractors of America

Dear Mr. Steel:

I am writing in response to the petition filed pursuant to the Administrative Procedure Act (APA), Government Code section 11340.6, by the Associated General Contractors of America (AGC or petitioner) dated January 11, 2010.<sup>1</sup> The petition requests that the Air Resources Board (ARB or Board) adopt an emergency amendment to delay the fleet average target dates of the In-Use Off-Road Diesel-Fueled Fleets Regulation (regulation)<sup>2</sup> for two years. The petition also requests that ARB ask the United States Environmental Protection Agency (U.S. EPA) to postpone consideration of California's request for authorization of the regulation that ARB submitted pursuant to section 209(e)(2) of the federal Clean Air Act (CAA) until such time that ARB has resolved the issues underlying the petition.

After careful consideration of all of the facts associated with the petitioner's request, pursuant to Government Code section 11340.7(b), I am granting the following relief and finding that the following actions are warranted:

<sup>1</sup> The petition is available from ARB upon request. Under the APA, any interested person may petition a State agency requesting the adoption, amendment, or repeal of a regulation as provided in Government Code section 11340.6. The petition must clearly and concisely state the substance or nature of the regulation, the requested amendment or repeal, the reason for the request, and the reference to the authority of the State agency to take the action requested. Under Government Code section 11340.7, the State agency within 30 days may grant or deny the petition in part, and may grant any other relief or take any other action as it may determine to be warranted by the petition. It must also indicate why the agency has reached its decision in writing and if it grants the petition, it must schedule the matter for public hearing in accordance with the notice and hearing requirements of the APA.

<sup>2</sup> Title 13, California Code of Regulations, sections 2449 through 2449.3.

*The energy challenge facing California is real. Every Californian needs to take immediate action to reduce energy consumption. For a list of simple ways you can reduce demand and cut your energy costs, see our website: <http://www.arb.ca.gov>*

California Environmental Protection Agency



- (1) ARB will issue an advisory notifying all stakeholders subject to the regulation that ARB will take no enforcement action regarding compliance with the regulation's emission standards or other emission related requirements before ARB receives authorization from U.S. EPA; and
- (2) a hearing will be held in Sacramento on March 11, 2010, before the Executive Officer to take testimony and other relevant information on the need for further amendments to the regulation to address the economic recession confronting the State and the adverse impacts that the recession has caused to the construction and other industries that operate off-road vehicles. As the Board has already directed staff to provide an update on the regulation at its April 2010 meeting, any information and testimony collected at this hearing shall be compiled and included as part of that update.

This relief, coupled with statutory and regulatory relief already provided by Assembly Bill 8 2X (AB 8 2X or bill), will ensure no stakeholders will be in violation with the regulation's March 1, 2010 emission standards or other emission related requirements. Therefore, I have concluded that an emergency does not exist. I am also taking no action on the petitioner's request that ARB request U.S. EPA to delay issuance of the authorization, because the request is outside the scope of the APA petition process.

#### Summary of January 11, 2010 Petition

The petitioner's request that ARB delay implementation of the regulation can be summarized as follows: since the Board's approval and adoption of the regulation in 2007-2008, changed circumstances in the economy and its impact on construction activity in California have affected the financial ability of construction fleets to comply with the regulation's requirements while concurrently resulting in fewer emissions from construction vehicles. In claiming that a two-year moratorium in implementing the initial compliance requirements is urgently necessary, the petition argues that, without such immediate relief, California construction contractors will suffer immediate and irreparable harm because the regulation as it currently exists will force fleets to either downsize or have to purchase and install expensive and unreliable emission control devices or repower their equipment in order to meet the 2010 and 2011 fleet average requirements.<sup>3</sup> In making this claim, AGC asserts that the relief provided by AB 8 2X signed by the Governor on February 20, 2009, provides insufficient relief with "some relief to some contractors, but not to others, and certainly not to all [a]nd even those relieved of the initial burdens will find that that [sic] their relief is fleeting. . . ."<sup>4</sup>

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<sup>3</sup> Petition at p. 6.

<sup>4</sup> *Id.*

AGC further argues that current economic conditions in the construction industry will not improve over the next two years,<sup>5</sup> and that reduced emissions resulting from the current economy gives the Board flexibility to delay the regulation and thereby reduce the financial burdens that it will impose, while still meeting the goals of the State Implementation Plan.<sup>6</sup>

#### Background of the Regulation

The Board approved the regulation for adoption on July 26, 2007, and formally adopted it on April 4, 2008. In adopting the regulation the Board specifically found that the regulation was necessary, technically feasible, and cost effective.<sup>7</sup> In finding that the regulations were necessary, the Board determined that in-use off-road diesel-fueled vehicles are significant contributors of emissions of oxides of nitrogen (NOx), particulate matter (PM), including PM2.5, and diesel exhaust, the last of which has been identified as a toxic air contaminant. The Board further found that the regulation would result in reductions in emissions that would prevent approximately 4,000 premature deaths and other harmful health impacts and would help California meet National Ambient Air Quality Standards (NAAQS) for ozone and PM2.5.

Subsequently, California, the nation, and the international community, in general, experienced a serious economic recession that has undisputedly impacted California businesses, including the State's construction industry. In response, as part of the 2009-2010 State budget, the California Legislature passed, and the Governor signed, AB 8 2X. Codified in Health and Safety Code section 43018.2, ARB was directed to amend the regulation to provide specified relief to affected stakeholders who have been negatively impacted by the State recession. Specifically, the legislation directed the Board to modify the NOx and PM credit provisions of the regulation to reflect vehicle retirements that reduce total fleet horsepower between March 1, 2006 and March 1, 2010, and reduced fleet activity between March 1, 2007, and March 1, 2010. It further directed the Board to amend the total cumulative NOx turnover and PM retrofit requirements for the years 2011 through 2013, to provide fleets with greater compliance flexibility with the regulation's requirements over the next three years.

Pursuant to the legislation's directives, the Board approved amendments to the regulation on July 23, 2009, with the amendments formally adopted and operative on December 3, 2009.

After adoption of the regulation in 2008, but before the enactment of AB 8 2X, AGC filed on December 15, 2008, the first of its two petitions, and requested that ARB amend and/or repeal the regulation. ARB and AGC agreed on February 4, 2009, to hold the

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<sup>5</sup> *Id.*, at p. 7.

<sup>6</sup> *Id.*, at p. 5.

<sup>7</sup> Resolution 07-19, a copy of which is attached as Attachment 1.

petition in abeyance as the parties evaluate data to determine the recession's impacts on construction fleets. With notice from either party, the petition could once again be activated and require an ARB response. To date, neither party has sought to activate the first petition.

On December 3, 2009, AGC presented ARB staff with its 2009 emissions inventory modeling analysis using the Diesel Off-Road On-Line Reporting System (DOORS)<sup>8</sup> data collected by ARB staff. The analysis was subsequently sent to the Board and made a part of the record of the December 11, 2009, Board hearing. At the hearing, the Board directed staff to return at its April and July 2010 Board hearings with an assessment of how the recession has impacted stakeholders subject to the regulation, using such information that is available, including the most recent fleet data that fleets are required to report no later than April 1, 2010.

### Response to Petition

#### A. Actions Warranted by the Petition

Pursuant to the authority provided under Government Code section 11340.7, I am granting the following relief and finding the actions described below to be warranted.

##### 1. Enforcement Advisory

I have determined that issuance of an enforcement advisory is warranted. The advisory will notify all stakeholders affected by the regulation that ARB will not take any enforcement action for noncompliance with the regulation's emission standards or other emission related requirements before ARB receives authorization from U.S. EPA.

##### 2. Hearing before the Executive Officer to Determine Need for Further Relief from the Impacts of the Recession

I am scheduling a hearing to be held on March 11, 2010 before the Executive Officer for the purpose of receiving testimony and other relevant information on the question of whether the regulation needs to be further amended to provide additional mitigation for stakeholders that have been adversely impacted by the recession and for whom the compliance relief provided by the AB 8 2X amendments has not been adequate. At the hearing, the petitioner and affected stakeholders will be provided the opportunity to fully present information on the effects of the recession on the construction industry and other industrial sectors of the economy, in general, and off-road fleets in particular. They will also be able to present testimony and information on how the recession has

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<sup>8</sup> DOORS is an online reporting tool designed to help fleet owners report their off-road diesel vehicle inventories and actions taken to reduce vehicle emissions to ARB, as required by the regulation.

affected emissions in the State, and why further delay of the regulation's compliance schedule is necessary and will not affect California's continuing efforts to improve air quality within its borders. I am also requesting that AGC and other stakeholders provide concrete and verifiable information to support any claims that the economy, in general, and the construction industry, specifically, will not have sufficiently rebounded from the recession by 2013.<sup>9</sup> The collected information will assist ARB staff in determining whether additional amendments to the regulation beyond those already adopted should be proposed to the Board.

In holding the hearing, I recognize that the present recession is the deepest recession since the Great Depression of the 1930s, that it has adversely impacted many fleets covered by the regulation, and that recovery from this recession is taking longer than many expected. I also recognize that the recession has resulted in reduced activity for many fleets and that, as a consequence, emissions are lower than forecasted in 2007, when the regulation was initially approved. However, what must be determined is the adequacy of the amendments already in place. The Executive Officer hearing will provide the best means of collecting information to make that determination.

In directing that an Executive Officer hearing be held, I have determined immediate Board action is not necessary since no emergency exists. The petition argues that the regulation must be immediately delayed by two years to prevent immediate and irreparable harm to fleets, in large part because the fleets have been adversely impacted by the current severe recession.<sup>10</sup> There is no dispute that a severe recession exists and that fleets have been negatively impacted. However, the AB 8 2X amendments, which became operative on December 3, 2009, have averted the need for immediate emergency action. The amendments adopted by the Board address the petition's concerns by providing a two-year delay, except for the largest fleets that were able to sustain revenues at pre-recession 2007 levels. Any fleet that has reduced its horsepower through retirement of vehicles between March 1, 2006 and March 1, 2010 will receive compliance credit for that horsepower reduction. Similarly, any fleet that has reduced its operational activity over the last several years (i.e., the difference in fleet activity between calendar year 2007 and the 12-month period bounded by March 1, 2009 to February 28, 2010) will also receive compliance credit. This effectively provides immediate compliance relief in the first years of the regulation's implementation for most fleets that have been adversely affected by the recession. For example, any fleet that has reduced its horsepower through retirements or reduced the amount that it operates by 32 percent or more will be COMPLETELY exempt from any compliance actions in 2010 or 2011 (i.e., will not be required to turn over any vehicles or install any retrofits). Fleets that have been more modestly impacted by the recession will be able to offset some of their 2010 and 2011 compliance requirements.

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<sup>9</sup> See Petition at pages 4 and 6

<sup>10</sup> Petition at page 6

The AB 8 2X amendments also allow all fleets, even those unaffected by the recession, to postpone much of the compliance actions originally required for 2011 and 2012 until 2013. Fleets whose business has not been adversely impacted should financially be in position to meet the regulation's immediate 2010 requirements.<sup>11</sup> Moreover, it is reasonable to assume that at least some of these fleets will take advantage of the regulation's early action credit provisions.<sup>12</sup> This relief along with the compliance relief provided in the above-referenced advisory preclude my finding that an emergency exists. For these reasons, I cannot accept AGC's characterization that most, if not all, fleets need immediate further relief to avoid irreparable harm.<sup>13</sup>

Immediate action is also not required even though the AB 8 2X amendments do not address the fleet average requirements of the regulation. The petition essentially argues that the remedy provided in AB 8 2X is insufficient in that it does not address the fleet average requirements of the regulation.<sup>14</sup> The argument is unsupportable because AB 8 2X specifically provides relief to fleets from the regulation's best available control technology (BACT) requirements, which are a compliance alternative to the fleet average requirements. Thus, to the extent that fleets achieve compliance by meeting the regulation's BACT requirements through credits for vehicle retirements and fleet inactivity, they are under no obligation to meet the fleet average requirements. Consequently, the AB 8 2X relief effectively addresses all of the regulation's performance requirements.

B. No Action is Warranted for ARB to Request that U.S. EPA Delay Issuing California an Authorization for the Regulation

The petition requests that ARB inform U.S. EPA that it should not issue the authorization that California has requested for the regulation. I have determined that such a request is outside of the scope of the APA petitioning process, which is directed at requests for adoption, amendment, or repeal of a regulation.<sup>15</sup> Accordingly, no action on the request is warranted.

C. Conclusion

In conclusion, for the foregoing reasons, I am granting the following relief: ARB will issue an advisory no later than February 28, 2010, notifying stakeholders that ARB will not take any enforcement action for noncompliance with the regulation's March 1, 2010 emission standards or other emission related requirements before it receives authorization from U.S. EPA. I have further determined that an Executive Officer

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<sup>11</sup> See e.g., title 13, Cal. Code Regs., §§ 2449(d)(1), 2449.1(a)(2)(A)2., and 2449.2(a)(2)(A)2.

<sup>12</sup> Title 13, Cal. Code Regs., § 2449(g)(1)(G).

<sup>13</sup> Petition at page 4.

<sup>14</sup> Petition at pages 1 and 4.

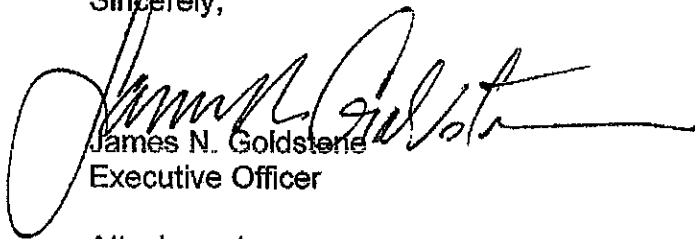
<sup>15</sup> Govt. Code § 11340.7.

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hearing to take testimony and receive information on the question of whether further amendments to the regulation, beyond those that have been adopted to date, is warranted. At the hearing, AGC and other stakeholders will have the opportunity to present testimony and documentation on the recession's impact and what additional relief stakeholders need to address those impacts.

If you have questions regarding the decision on this petition or would like to discuss the regulation, please contact Mr. Erik White, Chief, Heavy-duty Diesel In-Use Strategies Branch, at (916) 322-1017 or [ewhite@arb.ca.gov](mailto:ewhite@arb.ca.gov) or Mr. Michael Terris, Senior Staff Counsel, Office of Legal Affairs, at (916) 445-9815 or [mterris@arb.ca.gov](mailto:mterris@arb.ca.gov).

Sincerely,



James N. Goldstone  
Executive Officer

Attachment

cc: Tom Cackette,  
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