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July 3, 2007

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Mrs. Mary Nichols, Chair  
Air Resources Board  
1001 I Street, 23<sup>rd</sup> Floor  
Sacramento, CA 95814-2828

RE: Proposed Regulation for In-Use Off-Road Diesel Vehicles  
Inability to Add Higher Tier Used Machines to Fleet

Dear Mrs. Nichols:

In reviewing Section 2449(d)(7) of the Revised Proposed Regulatory Language for the April 6, 2007 In-Use Off-Road Diesel Vehicle regulation we were dismayed by the overly aggressive restrictions placed on the purchase of used machines for owners' fleets that do not meet the fleet average targets.

These restrictions will create a problem with owners' ability to purchase higher tier used machines. This is contrary to statements made by staff that ample used machines will be available for owners to purchase to meet compliance in the regulation. The wording also seems to affect new machine purchases. New machines purchases should be excluded from the requirements for adding machines.

According to the way the regulation is currently written an owner will not be able to buy a Tier 2 or Tier 3 machine starting in 2012 or 2013 (depending upon horsepower range) without first adding PM after treatment (see attached spreadsheet). Additionally, an owner will not be able to purchase a Tier 4 Interim machine in the horsepower range of 25 HP to 74 HP starting in 2016 without adding additional PM after treatment. Further, no used machine can be purchased for 25 HP to 49 HP in 2012 and 50 HP to 74 HP starting in 2019. This complication creates the following:

1. Inability of used machine availability leaving owners with the only alternative of purchasing costly new machines to satisfy compliance. Even new machines purchased with a Tier 3 engine within these strict requirements would need a verified particulate filter before adding it to the fleet starting in 2012.
2. Inability of owners to properly add necessary machines to accommodate business growth.
3. Potential to further reduce the bonding capability of these owners when these machines are sold for far less than their book value.
4. Likely reduction in trade-in value of these higher tier machines creating a much higher new machine purchase price.

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July 3, 2007  
Mrs. Mary Nichols  
Page Two

One of the keys to a successful business is the ability to grow. This restriction for adding equipment will severely hamper, if not prevent, companies from expanding their business.

Instead of trying to tie the purchase to the targets, you should simply require the following:

1. If a used machine is required to replace an existing machine, the machine must have a higher tier engine than the one being replaced. After treatment retrofits would still follow the same path as determined by the BACT requirements for the next compliance period.
2. If adding used machines (additional horsepower to meet business expansion) the machine should have an engine meeting Tier 1 or better until 2012, Tier 2 or better between 2012 and 2017, and Tier 3 or better starting in 2018. Owners would be required to add a CARB verified particulate filter within 3 years of purchase of the used equipment.
3. If adding new machines (additional horsepower to meet business expansion), they should contain engines that legally meet the current model year standards, including flex engines as allowed by EPA and CARB. Any new machine containing a Tier 2 or Tier 3 engine would not be required to add a verified particulate filter for machines less than 5 years old.

This method will still provide the flexibility to owners to purchase new and used machines while providing the owners flexibility in how they meet the emissions requirements of this regulation.

I strongly urge you and your staff consider the alternative above over the overly restrictive requirement currently proposed.

Sincerely,



Michael W. Lewis  
Senior Vice-President  
Construction Industry Air Quality Coalition and  
Coalition to Build a Cleaner California

Attachment: Difficulty of Adding Machines to Fleet Per Section 2449(d)(7)

Cc: Tom Cackette, Chief Deputy Executive Officer, Acting Executive Officer

## DIFFICULTY OF ADDING MACHINES to FLEET PER SECTION 2449(d)(7)

| <b>Table 1 - Large and Medium Fleet Nox Targets<br/>For Use in Calculating Fleet Target Rates (g/bhp-hr)</b> |                     |                      |                     |                     |                     |                     |                     |                     |
|--|---------------------|----------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|
| <b>Nox Targets for Each Max HP Group</b>   |                     |                      |                     |                     |                     |                     |                     |                     |
| <b>Compliance Date:<br/>March 1 of<br/>Year</b>  | <b>25 - 49 HP</b>   | <b>50 - 74 HP</b>    | <b>75 - 99 HP</b>   | <b>100 - 174 HP</b> | <b>175 - 299 HP</b> | <b>300 - 599 HP</b> | <b>600 - 750 HP</b> | <b>&gt; 750 HP</b>  |
| <b>2010 Large Fleets Only)</b>   | 2, 4A               | 2, 4A                | 2,3                 | 2,3                 | 2,3                 | 2,3                 | 2,3                 | 2.0                 |
| <b>2011 Large Fleets Only)</b>   | 2, 4A               | 2, 4A                | 2,3                 | 2,3                 | 2,3,4A              | 2,3,4A              | 2,3,4A              | 2,4A                |
| <b>2012 Large Fleets Only)</b>   | NOTHING(N)<br>Nt. 9 | 2, 4A                | 2,3,4A              | 2,3,4A              | 2,3,4A              | 2,3,4A(P) Nt.<br>6  | 2,3,4A(P) Nt.<br>6  | 2,4A                |
| <b>2013</b>  | 2,4B(N)<br>Nt. 9    | 2,4A,4B(N)<br>Nt. 10 | 2,3,4A              | 2,3,4A              | 2,3,4A              | 3,4A(P) Nt. 4       | 2,3,4A(P) Nt.<br>6  | 2,4A                |
| <b>2014</b>  | 2,4B(N)<br>Nt. 10   | 2,4A,4B(N)<br>Nt. 10 | 3,4A(P) Nt. 4       | 3,4A(P) Nt. 4       | 3,4A,4B(P) Nt.<br>5 | 3,4A,4B(P)<br>Nt. 5 | 3,4A,4B(P)<br>Nt. 5 | 2,4A                |
| <b>2015</b>  | 2,4B(N)<br>Nt. 10   | 2,4A,4B(N)<br>Nt. 10 | 3,4A,4B(P) Nt.<br>5 | 3,4A,4B(P) Nt.<br>5 | 3,4A,4B(P) Nt.<br>5 | 3,4A,4B(P)<br>Nt. 5 | 3,4A,4B(P)<br>Nt. 5 | 2,4A,4B             |
| <b>2016</b>  | 4B                  | 4B(P) - Nt. 3        | 3,4A,4B(P) Nt.<br>5 | 3,4A,4B(P) Nt.<br>5 | 3,4A,4B(P) Nt.<br>5 | 3,4A,4B(P)<br>Nt. 5 | 3,4A,4B(P)<br>Nt. 5 | 2,4A,4B(P) Nt.<br>7 |
| <b>2017</b>  | 4B                  | 4B(P) - Nt. 3        | 3,4A,4B(P) Nt.<br>5 | 3,4A,4B(P) Nt.<br>5 | 3,4A,4B(P) Nt.<br>5 | 3,4A,4B(P)<br>Nt. 5 | 3,4A,4B(P)<br>Nt. 5 | 4A,4B               |
| <b>2018</b>  | 4B                  | 4B(P) - Nt. 3        | 4A,4B               | 3,4A,4B(P) Nt.<br>5 | 4A,4B               | 4A,4B               | 4A,4B               | 4A,4B               |
| <b>2019</b>  | 4B                  | NOTHING(N)<br>Nt. 9  | 4A,4B               | 4A,4B               | 4A,4B               | 4A,4B               | 4A,4B               | 4A,4B               |
| <b>2020</b>  | 4B                  | NOTHING(N)<br>Nt. 9  | 4B                  | 4B                  | 4A,4B               | 4A,4B               | 4A,4B               | 4A,4B(P) Nt.<br>8   |

## DIFFICULTY OF ADDING MACHINES to FLEET PER SECTION 2449(d)(7)

| <b>Table 2 - Large and Medium Fleet PM Targets<br/>For Use in Calculating Fleet Target Rates (g/bhp-hr)</b> |   |                     |                     |                     |                     |                     |                     |                     |
|---|---|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|
|   | <b>PM Targets for Each Max HP Group</b> |                     |                     |                     |                     |                     |                     |                     |
| <b>Compliance Date:<br/>March 1 of<br/>Year</b>   | <b>25 - 49 HP</b>                       | <b>50 - 74 HP</b>   | <b>75 - 99 HP</b>   | <b>100 - 174 HP</b> | <b>175 - 299 HP</b> | <b>300 - 599 HP</b> | <b>600 - 750 HP</b> | <b>&gt; 750 HP</b>  |
| <b>2010 Large Fleets Only)</b>  | 2, 4A                                   | 2, 4A               | 2,3                 | 2,3                 | 2,3                 | 2,3                 | 2,3                 | 2.00                |
| <b>2011 Large Fleets Only)</b>  | 2, 4A                                   | 2, 4A               | 2,3                 | 2,3                 | 2,3,4A              | 2,3,4A              | 2,3,4A              | 2,4A                |
| <b>2012 Large Fleets Only)</b>  | NOTHING(N)<br>Nt. 9                     | 2, 4A               | 2,3,4A              | 2,3,4A              | 2,3,4A              | 2,3,4A(P) Nt.<br>6  | 2,3,4A(P) Nt.<br>6  | 2,4A                |
| <b>2013</b>   | 4B(N)<br>10                             | 2,4A,4B(N)<br>10    | 2,3,4A              | 2,3,4A              | 2,3,4A              | 3,4A(P) Nt. 4       | 2,3,4A(P) Nt. 6     | 2,4A                |
| <b>2014</b>   | 2,4B(N)<br>10                           | 2,4A,4B(N)<br>10    | 3,4A(P) Nt. 4       | 3,4A(P) Nt. 4       | 3,4A,4B(P) Nt.<br>5 | 3,4A,4B(P)<br>Nt. 5 | 3,4A,4B(P)<br>Nt. 5 | 2,4A                |
| <b>2015</b>   | 2,4B(N)<br>10                           | 2,4A,4B(N)<br>10    | 3,4A,4B(P) Nt.<br>5 | 3,4A,4B(P) Nt.<br>5 | 3,4A,4B(P) Nt.<br>5 | 3,4A,4B(P)<br>Nt. 5 | 3,4A,4B(P)<br>Nt. 5 | 2,4A,4B             |
| <b>2016</b>   | 4B                                      | 4B(P) Nt. 3         | 3,4A,4B(P) Nt.<br>5 | 3,4A,4B(P) Nt.<br>5 | 3,4A,4B(P) Nt.<br>5 | 3,4A,4B(P)<br>Nt. 5 | 3,4A,4B(P)<br>Nt. 5 | 2,4A,4B(P) Nt.<br>7 |
| <b>2017</b>   | 4B                                      | 4B(P) Nt. 3         | 3,4A,4B(P) Nt.<br>5 | 3,4A,4B(P) Nt.<br>5 | 3,4A,4B(P) Nt.<br>5 | 3,4A,4B(P)<br>Nt. 5 | 3,4A,4B(P)<br>Nt. 5 | 4A,4B               |
| <b>2018</b>   | 4B                                      | 4B(P) Nt. 3         | 4A,4B               | 3,4A,4B(P) Nt.<br>5 | 4A,4B               | 4A,4B               | 4A,4B               | 4A,4B               |
| <b>2019</b>   | 4B                                      | NOTHING(N)<br>Nt. 9 | 4A,4B               | 4A,4B               | 4A,4B               | 4A,4B               | 4A,4B               | 4A,4B               |
| <b>2020</b>   | 4B                                      | NOTHING(N)<br>Nt. 9 | 4B                  | 4B                  | 4A,4B               | 4A,4B               | 4A,4B               | 4A,4B(P) Nt.<br>8   |

## DIFFICULTY OF ADDING MACHINES to FLEET PER SECTION 2449(d)(7)

### Notes for Tables 1 and 2:

1. (N) = NOx Target Limiting; (P) = Particulate Target Limiting
2. 4A = Tier 4 Interim; Tier 4B = Tier 4 Final
3. Where indicated, only a Tier 4B machine can be used unless a particulate trap can be added to a Tier 4A machine. No other tier level machine can be used.
4. Where indicated a Tier 3 machine can be used but it must have a VDECS installed. Otherwise, only a Tier 4A machine can be used.
5. Where indicated a Tier 3 machine can be used but it must have a VDECS installed. Otherwise, only a Tier 4A or Tier 4B machine can be used.
6. Where indicated a Tier 2 or Tier 3 machine can be used but it must have a VDECS installed. Otherwise, only a Tier 4A machine can be used.
7. Where indicated a Tier 2 machine can be used but it must have a VDECS installed. Otherwise, only a Tier 4A machine can be used.
8. Where indicated a Tier 4A machine can be used but it must have a VDECS installed. Otherwise, only a Tier 4A machine can be used.
9. Where "Nothing" is indicated, particulate can be met with Tier 4A in 2012 for 25 to 49 HP, but the engine will need NOx after treatment. The same applies for 2019 and 2020 for 50 to 74 HP where Tier 4A or 4B can be used, but the engine will need NOx after treatment.
10. Engines 25 to 49 HP will need additional NOx after treatment for Tier 2; PM after treatment will also be needed on Tier 2 2014 - 2015. Tier 4A engines will need NOx after treatment for 50 to 74 HP 2013 - 2015.

## DIFFICULTY OF ADDING MACHINES to FLEET PER SECTION 2449(d)(7)

| <b>Table 3 - Small Fleet PM Targets</b>                     |                   |                   |                   |                     |                     |                     |                     |                    |
|---|-------------------|-------------------|-------------------|---------------------|---------------------|---------------------|---------------------|--------------------|
| <b>For Use in Calculating Fleet Target Rates (g/bhp-hr)</b> |                   |                   |                   |                     |                     |                     |                     |                    |
| <b>PM Targets for Each Max HP Group</b>                     |                   |                   |                   |                     |                     |                     |                     |                    |
| <b>Compliance Date:<br/>March 1 of<br/>Year</b>             | <b>25 - 49 HP</b> | <b>50 - 74 HP</b> | <b>75 - 99 HP</b> | <b>100 - 174 HP</b> | <b>175 - 299 HP</b> | <b>300 - 599 HP</b> | <b>600 - 750 HP</b> | <b>&gt; 750 HP</b> |
| <b>2015</b>   | 2,4A,4B           | 2,4A,4B           | 2,3,4A,4B         | 2,3,4A,4B           | 2,3,4A,4B           | 2,3,4A,4B           | 2,3,4A,4B           | 2,4A,4B            |
| <b>2016</b>   | 2,4A,4B           | 2,4A,4B           | 2,3,4A,4B         | 2,3,4A,4B           | 2,3,4A,4B           | 2,3,4A,4B           | 2,3,4A,4B           | 2,4A,4B            |
| <b>2017</b>   | 2,4A,4B           | 2,4A,4B           | 2,3,4A,4B         | 2,3,4A,4B           | 2,3,4A,4B           | 2,3,4A,4B Nt.       | 2,3,4A,4B Nt. 5     | 2,4A,4B            |
|   | Nt. 3             |                   |                   |                     |                     | 5                   |                     |                    |
| <b>2018</b>   | 2,4A,4B           | 2,4A,4B           | 2,3,4A,4B         | 2,3,4A,4B           | 2,3,4A,4B           | 2,3,4A,4B Nt.       | 2,3,4A,4B Nt. 5     | 2,4A,4B            |
|   | Nt. 3             |                   |                   |                     |                     | 5                   |                     |                    |
| <b>2019</b>   | 2,4A,4B           | 2,4A,4B           | 2,3,4A,4B Nt.     | 2,3,4A,4B Nt.       | 2,3,4A,4B Nt.       | 2,3,4A,4B Nt.       | 2,3,4A,4B Nt.       | 2,4A,4B            |
|   | Nt. 3             | Nt. 3             | 5                 | 5                   | 5                   | 5                   | Nt. 5               |                    |
| <b>2020</b>   | 2,4A,4B           | 2,4A,4B           | 2,3,4A,4B Nt.     | 2,3,4A,4B Nt.       | 2,3,4A,4B Nt.       | 2,3,4A,4B Nt.       | 2,3,4A,4B Nt.       | 2,4A,4B            |
|   | Nt. 3             | Nt. 3             | 5                 | 5                   | 5                   | 5                   | Nt. 5               |                    |
| <b>2021</b>   | 2,4A,4B Nt.       | 2,4A,4B Nt.       | 2,3,4A,4B Nt.     | 2,3,4A,4B Nt.       | 2,3,4A,4B Nt.       | 2,3,4A,4B Nt.       | 2,3,4A,4B Nt.       | 2,4A,4B Nt.        |
|   | 4                 | 4                 | 5                 | 5                   | 5                   | 5                   | Nt. 5               | 3                  |
| <b>2022</b>   | 2,4A,4B Nt.       | 2,4A,4B Nt.       | 2,3,4A,4B Nt.     | 2,3,4A,4B Nt.       | 2,3,4A,4B Nt.       | 2,3,4A,4B Nt.       | 2,3,4A,4B Nt.       | 2,4A,4B Nt.        |
|   | 4                 | 4                 | 5                 | 5                   | 5                   | 5                   | Nt. 5               | 3                  |
| <b>2023</b>   | 2,4A,4B Nt.       | 2,4A,4B Nt.       | 2,3,4A,4B Nt.     | 2,3,4A,4B Nt.       | 2,3,4A,4B Nt.       | 2,3,4A,4B Nt.       | 2,3,4A,4B Nt.       | 2,4A,4B Nt.        |
|   | 4                 | 4                 | 5                 | 5                   | 5                   | 5                   | Nt. 5               | 3                  |
| <b>2024</b>   | 2,4A,4B Nt.       | 2,4A,4B Nt.       | 2,3,4A,4B Nt.     | 2,3,4A,4B Nt.       | 2,3,4A,4B Nt.       | 2,3,4A,4B Nt.       | 2,3,4A,4B Nt.       | 2,4A,4B Nt.        |
|   | 4                 | 4                 | 5                 | 5                   | 5                   | 5                   | Nt. 5               | 3                  |
| <b>2025</b>   | 2,4A,4B Nt.       | 2,4A,4B Nt.       | 2,3,4A,4B Nt.     | 2,3,4A,4B Nt.       | 2,3,4A,4B Nt.       | 2,3,4A,4B Nt.       | 2,3,4A,4B Nt.       | 2,4A,4B Nt.        |
|   | 4                 | 4                 | 5                 | 5                   | 5                   | 5                   | Nt. 5               | 4                  |

## DIFFICULTY OF ADDING MACHINES to FLEET PER SECTION 2449(d)(7)

### Notes for Table 3:

1. (N) = NO<sub>x</sub> Target Limiting; (P) = Particulate Target Limiting
2. 4A = Tier 4 Interim; Tier 4B = Tier 4 Final
3. Where indicated a Tier 2 machine can be used but it must have a VDECS installed. Otherwise, only a Tier 4A or Tier 4B machine can be used.
4. Where indicated a Tier 2 or Tier 4A machine can be used but it must have a VDECS installed. Otherwise, only a Tier 4B machine can be used.
5. Where indicated a Tier 2 or Tier 3 machine can be used but it must have a VDECS installed. Otherwise, only a Tier 4A or Tier 4B machine can be used.