

California Environmental Protection Agency
 **Air Resources Board**

Final Statement of Reasons for Rulemaking
Including Summary of Comments and Agency Responses

**PUBLIC HEARING TO CONSIDER THE ADOPTION OF PROPOSED
MODIFICATIONS TO THE REGULATION FOR IN-USE OFF-ROAD
DIESEL-FUELED FLEETS**

Public Hearing Date: July 23, 2009
Agenda Item No.: 09-7-7

TABLE OF CONTENTS

I GENERAL.....1

**II MODIFICATIONS MADE TO THE ORIGINAL PROPOSAL AND
ADDITIONAL DOCUMENTS MADE PUBLICLY AVAILABLE3**

III SUMMARY OF COMMENTS AND AGENCY RESPONSES.....4

**1. Incentive Amendments Not Enough to Offset Emission Increases
from AB 8 2X6**

2. Report within 30 Days of Selling a Vehicle.....7

3. Change Word “Impossible” in Safety Requirements.....9

4. Limited Exemption from Future Turnover10

5. Double PM Credit Extension for Small and Medium Fleets11

State of California
AIR RESOURCES BOARD

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I GENERAL

In this rulemaking, the Air Resources Board (ARB, Board) approved amendments to the regulation for In-Use Off-Road Diesel Fueled Fleets (off-road regulation), set forth in California Code of Regulations (Cal. Code Regs.), title 13, sections 2449 through 2449.3. These amendments include amending:

- Section 2449(c)(26) to clarify that public agency fire prevention activities are classified as forest operations;
- Section 2449(c)(39) to include community college programs that train students in the use of off-road vehicles;
- Section 2449(e)(6) to clarify that the section applies to installer delays as well as manufacturer delays;
- Section 2449(e)(8) to clarify that a retrofit installation may be determined unsafe if it would make compliance with any federal or State agency safety requirements technologically infeasible;
- Section 2449(g) to clarify that fleets must report to ARB within 30 days of selling a vehicle;
- Section 2449.1(a)(2)(A)2.a.iii. to add a provision to allow fleets to claim double credit for oxides of nitrogen (NOx) retrofits installed by March 1, 2011;
- Section 2449.1(a)(2)(A)2.b. to add a provision to allow fleets to accumulate NOx carryover turnover credit for repowers installed, even if total annual fleet turnover does not exceed 8 percent of total fleet horsepower;
- Section 2449.1(a)(2)(A)4. to allow fleets to claim a limited exemption from future turnover if they install a highest level particulate matter (PM) verified diesel emission control strategy (VDECS) prior to March 1, 2011; and
- Section 2449.2(a)(2)(A)2.a.ii. to provide double PM credit for small and medium fleets that install highest level VDECS on their vehicles prior to March 1, 2012.

On June 5, 2009, ARB issued a notice for a public hearing to consider the amendments to the off-road regulation at the Board's July 23, 2009, hearing. A "Staff Report: Initial Statement of Reasons" (Staff Report), describing the rationale for the amendments, was also made available for public review and comment starting June 5, 2009. The text of the modifications, which includes amendments to sections 2449, 2449.1, and 2449.2 in title 13, Cal. Code Regs., was included as Appendix A, to the Staff Report. The Notice and Staff Report are incorporated by reference herein. These documents were also posted on the ARB's Internet site for the rulemaking on June 5, 2009 at: <http://www.arb.ca.gov/regact/2009/offroad09/offroad09.htm> ("ARB's internet site").

At the July 23, 2009, hearing, the Board approved amendments implementing Assembly Bill 8 2X (AB 8 2X) which was signed by the Governor on February 20, 2009. The AB 8 2X amendments were intended to provide economic relief to the construction industry, which is currently facing difficult economic times due to the current global recession. The AB 8 2X amendments were formally adopted by the ARB Executive Officer on December 3, 2009, and became operative on that date as the amendments were expressly exempted from review under the Administrative Procedures Act. Board Resolution 09-50 and all other regulatory documents for the AB 8 2X amendments are available online at the following ARB website: <http://www.arb.ca.gov/regact/2009/offroad09/offroad09.htm>

At the July 23, 2009, hearing, the Board also approved the amendments described at the beginning of this document. These amendments were approved to provide additional incentives to spur early actions by fleets to reduce emissions, and to make several minor clarifications to the regulation. Written and oral comments were received at the hearing, and the Board adopted Resolution 09-50, approving the proposed modifications to the off-road regulation with modifications. In accordance with section 11346.8 of the Government Code, the Board directed the Executive Officer to incorporate the modifications into the proposed regulatory text and to make such modifications available for a supplemental comment period of at least 15 days. The Executive Officer was then directed either to adopt the regulation with such additional modifications as may be appropriate in light of the comments received, or to present the regulation to the Board for further consideration if warranted in light of the comments.

This Final Statement of Reasons (FSOR) for this rulemaking summarizes written and oral comments the Board received during the formal rulemaking process regarding the non-AB 8 2X amendments to the off-road regulation, and ARB's responses to those comments.

In addition to the amendments discussed in this FSOR, it is likely that additional changes will be proposed to the regulation within the next six months. The ARB

Executive Officer held a hearing on March 11, 2010, to solicit comments regarding whether additional changes to the off-road regulation are necessary to address the current economic recession. At its April 22, 2010, meeting, staff updated the Board regarding the March 11 hearing and broadly identified what additional relief can be considered that would still meet the State's air quality goals and commitments. The Board directed staff to craft a proposal for amending the off-road regulation together with the truck and bus regulation as much as possible while still meeting the State's public health goals and commitments. The Board also directed staff to hold public workshops in May and June, and then return to the Board in September 2010 to propose appropriate changes to the regulations.

Documents Incorporated by Reference. There are no documents incorporated by reference in title 13, Cal. Code Regs., section 2449, 2449.1, 2449.2, or 2449.3.

Determination Regarding Mandates on Local Agencies and School Districts.

The Executive Officer has determined that the regulatory action would not impose a mandate on any local agency or school district whether or not reimbursable by the state pursuant to part 7 (commencing with section 17500), division 4, title 2 of the Government Code.

Consideration of Alternatives. The amendments to the off-road regulation were the subject of discussions involving staff and the affected owners, operators, and sellers of in-use off-road diesel vehicles in California. A discussion of alternatives to the proposed amendments to the off-road regulation is found in Chapter V of the Staff Report. For the reasons set forth in the Staff Report, staff's comments and responses at the hearing, and this FSOR, the Board has determined that none of the alternatives considered by the agency would be more effective in carrying out the purpose for which the amendments to the off-road regulation were proposed or would be as effective and less burdensome to affected private persons than the action taken by the Board.

II MODIFICATIONS MADE TO THE ORIGINAL PROPOSAL AND ADDITIONAL DOCUMENTS MADE PUBLICLY AVAILABLE

The text of the modifications to the originally proposed amendments and the incorporated documents were made available in one supplemental 15-day comment period by issuance of a "Notice of Public Availability of Modified Text and Availability of Additional Documents" ("15-day Notice") on April 15, 2010.

The 15-Day Notice is incorporated by reference herein. The 15-day Notice was mailed to all parties identified in section 44(a), title 1 Cal. Code Regs., and to other persons generally interested in the ARB's rulemaking concerning in-use

off-road diesel vehicles. This document was also published on April 15, 2010, on ARB's Internet site. Email messages announcing and linking to these postings were transmitted to the more than 4,850 parties who had subscribed to ARB's "ordiesel" List Server. The 15-day Notice gave the name, telephone, and fax number of the ARB contact person from whom interested parties could obtain the complete texts of the additional incorporated documents and the modifications to the original proposal, with all of the modifications clearly indicated.

No pertinent written comments were received during the 15-day comment period.

Since there were no pertinent comments received during the supplemental 15-day comment period, the Executive Officer issued Executive Order R-10-009, adopting the amendments to sections 2449, 2449.1, and 2449.2 in title 13, Cal. Code Regs., and the incorporated documents.

III SUMMARY OF COMMENTS AND AGENCY RESPONSES

Comments Submitted Up to and at the Board Hearing

The Board received 15 written and oral comments in the formal 45-day rulemaking comment period leading up to the July 2009 Board meeting, beginning with the notice publication June 5, 2008, and ending with the closing of the record on July 23, 2009. Comments not pertinent to modifying the off-road regulation or to the proposed modifications have not been included as part of the rulemaking record and are not responded to in this document. As stated, comments received in response to AB 8 2X are also not included or responded to in the FSOR. Table III-A-1 below lists commenters that submitted timely, pertinent comments, and identifies the date and form of their comments. Following the table is a list of those comments that were wholly in support of the modifications to the off-road regulation.

Following those lists is a summary of each objection or recommendation regarding the proposed action, together with an agency response providing an explanation of how the proposed action has been changed to accommodate the objection or recommendation or the reasons for making no change. The comments have been grouped by topic whenever possible.

Comments during the 45-day Comment Period Up to and at the Board Hearing

Table III-A-1 below lists the comments pertinent to the rulemaking that were received during the 45-day comment period up to and at the Board Hearing and the Reference Code assigned to each.

Table III-A-1 Comments From Up To and At the Board Hearing

Reference Code	Commenter	Affiliation	Date Received
BAUTISTA	Bautista, Nidia	Coalition for Clean Air	July 22, 2009
CALPASC	Wick, Bruce	California Professional Association of Specialty Contractors	July 21, 2009
CIAQC1	Lewis, Michael	Construction Industry Air Quality Coalition	July 21, 2009
CIAQC2	Lewis, Michael	Construction Industry Air Quality Coalition	July 23, 2009
EDGAR	Edgar, Sean	Clean Fleets Coalition	July 23, 2009
EGCA	Day, Debbie	Engineering & General Contractors Association	July 23, 2009
ERRECA	Erreca, Scott	Erreca Inc.	July 23, 2009
FARANO1	Farano, Jeff	SA Recycling	July 22, 2009
FARANO2	Farano, Jeff	SA Recycling	July 23, 2009
GRANITE1	Pfeifer, Nick	Granite Construction Inc.	July 21, 2009
GRANITE2	Pfeifer, Nick	Granite Construction Inc.	July 23, 2009
IRONMAN	Cox, Charlie	Ironman	July 23, 2009
LEHIGH	Knapp, Gregory	Lehigh Hanson	July 21, 2009
MECA	Brezny, Rasto	Manufacturers of Emission Controls Association	July 21, 2009
SCAQMD1	Wallerstein, Barry	South Coast Air Quality Management District	July 17, 2009
SCAQMD2	Hogo, Henry	South Coast Air Quality Management District	July 23, 2009
SHAW	Shaw, Mike	Perry & Shaw, Inc.	July 23, 2009

Of the comments above in Table III-A-1, the following Reference Codes pertain to comments that were wholly in support of the modifications to the off-road regulation. If a comment was partially in support of the modifications to the off-road regulation but also suggested changes to the proposed modifications, it is not included below, but is responded to in the agency responses later in this document.

Reference Code
GRANITE1
MECA

1. Incentive Amendments Not Enough to Offset Emission Increases from AB 8 2X

Comment: CARB staff is proposing additional amendments to incentivize early fleet retrofits and turnovers, which include amendments for double credits for NOx and PM retrofits and exempting early vehicle retrofits from future turnover requirements. While we strongly support these amendments, we believe that due to the voluntary nature of the incentives the emission reductions generated will be significantly less than those foregone with the implementation of the proposed reduced activity and fleet size credit amendments. (SCAQMD1)

Comment: We strongly believe that ARB must do everything possible to preserve emission reduction benefits in the Off-Road Rule. We applaud ARB for proposing early incentive provisions in order to encourage some progress on cleaning up equipment over the next few years. However, it is unlikely that these provisions alone will mitigate the longer-term emission losses expected, and in fact may exacerbate them. If ARB finds that implementation of the proposed amendments compromises future emission reductions from off-road equipment, CARB should quickly propose and adopt further adjustments to the Off-Road Rule to fully mitigate these losses. (BAUTISTA)

Comment: We believe that there is a need to have further language added to the amendments to fully recoup the emission benefits lost. In addition, we would like to see language added to the adopting resolution to monitor the economic situation. And if the economic situation does not improve, this language could be removed again or the Board can propose some potential other actions to seek further relief. (SCAQMD2)

Agency Response: We (ARB staff) agree that the effects of these amendments should be monitored, and will be doing so through the regulatory implementation process. We have committed to monitor the effect of the economy on emissions from off-road vehicles, and reported this information, as well as information on fleets taking advantage of the AB 8 2X amendments, at the April 2010 Board hearing. Additionally, the Board's originally adopted resolution directs staff to update the Board on the implementation process several times throughout the life of the regulation. Therefore, we did not feel it necessary to add language which would specifically require the monitoring of the economy or include additional updates to the Board.

At the time these amendments were approved by the Board, we did not propose an increase in the stringency of the regulation in later years (to compensate for the relief provided by AB 8 2X) for several reasons. First, increasing the requirements in later years (such as 2013 and 2014) would most likely result in an increase in compliance costs for fleets in those years, making the regulation less affordable for many fleets. Second, we also believe that increasing the stringency in the later years of the regulation would have been inconsistent with the intent of AB 8 2X.

Although the commenters above argue that the “incentive” amendments are not enough to compensate for the emissions benefits lost through AB 8 2X, the AB 8 2X amendments were mandated by the California Legislature, and therefore the intent of those amendments (to provide relief to the industries affected by the off-road regulation) must be maintained. If these amendments are found to have resulted in a loss of emissions benefits, we will report this information to the Board at a future hearing. Also, the Board always has the ability to direct that staff make additional changes to the regulation to compensate for emissions losses, if it sees the need to do so.

2. Report within 30 Days of Selling a Vehicle

Comment: The proposed requirement for the seller of a vehicle to notify CARB within 30 days of a sale is unnecessary and adds to the already extensive reporting requirements of the regulation. Due to the recession, companies are downsizing and not adding employees. Creating a new burden on a seller will add to the already significant reporting requirements of all fleets and will not result in emission benefits. Currently the buyer of a vehicle is required to report the purchase to CARB within 30 days. CIAQC recommends that when CARB receives notice from the purchaser of a registered vehicle, that the DOORS reporting program automatically send an email notice to the registered owner on file (seller) to seek verification that the vehicle has been sold. This would require minimum staff time, avoid the creation of additional requirements that carry the potential for penalties and violations and facilitate updated vehicle owner status. (CIAQC1) (CIAQC2) (CALPASC) (GRANITE2)

Agency Response: As stated in the Staff Report for these amendments, this 30-day seller notification is required to enable fleets to add vehicles that they have purchased from another fleet and for the vehicles to maintain their Equipment Identification Numbers (EINs). If vehicles that are sold are not reported within 30 days, fleets that purchase vehicles that have already been reported to ARB would likely have to remove EINs from vehicles, get new EINs, and re-label the vehicles. Removing an EIN would typically involve scraping a label off of a vehicle or painting over it. If the original EIN is able to stay with the vehicle, tracking will be more streamlined and fleet owners will not have to utilize additional resources to change EINs.

Although several commenters stated this provision could potentially result in additional citations, we believe this provision is necessary to ensure the reporting of sold vehicles in a timely fashion. Previously, fleets had no requirements (or incentive) to report sold vehicles to ARB more than once per reporting year. As discussed further below, we believe the threat of possible enforcement will encourage more fleets to report their sold vehicles in a timely manner.

The commenters above suggested creating an automated system that would allow the buyer of a vehicle to send an automatic message via the Diesel Off-road On-line Reporting System (DOORS) to the vehicle's previous owner to confirm the vehicle's sale. Staff believes this is a good idea and will implement this type of system as a future DOORS improvement.

However, we do not believe this email reminder system is adequate to ensure timely reporting of sold vehicles for the reasons below. First, staff believes just asking a seller via email to report their vehicle sold in a timely manner would be less effective than requiring them to do so. We base this belief on our experiences implementing the regulation since initial reporting in 2009; we have already had situations where one fleet has purchased a vehicle but the selling fleet has not relinquished ownership of the vehicle in the DOORS system, even after being asked to do so. Second, fleets are not required to use the online version of DOORS, and many have instead chosen to report via hard copy forms. If a fleet submits its vehicle information via hard-copy forms (and not the online system), and does not have Internet access or email, it would not be possible to send them an automatic email requesting their confirmation of the vehicle's sale. Instead, a hard-copy confirmation of sale process would need to be established, and could result in long delays for fleets adding previously registered vehicles.

We also do not feel that the process of relinquishing ownership status of a vehicle in DOORS (or via hard copy forms) creates an excessive burden on fleets, nor does it add an additional administrative burden. First, the process of reporting a sold vehicle in DOORS takes only a few minutes and involves only a few steps; this process is outlined in the DOORS user guide: How to Report Vehicles Which Have Been Sold or Retired, which is available online at: <http://www.arb.ca.gov/msprog/ordiesel/documents/doors/retiredorsold.pdf>. If the fleet is reporting a sold vehicle via hard-copy forms, they simply submit in writing the vehicle EIN number, the fleet's vehicle ID number (optional), the vehicle serial number, and date of sale to ARB. Second, under the operative regulation, fleets are already required to report vehicle sales as part of their annual reporting. All the new requirement adds is an earlier deadline to report the sale.

For the reasons described above, we disagree with the commenters and believe 30-day seller notification should be required.

3. Change Word “Impossible” in Safety Requirements

Comment: Staff proposes to add language to the regulation that states: “The Executive Officer shall accept the official findings of the responsible federal or state agency that compliance with the requirements of this regulation would make compliance with the federal and state safety or health requirements impossible.” This section should address the potential conflict between requirements of the off-road regulation and compliance with federal and state safety or health requirements due to the design of the equipment and design configurations when installations cannot be accomplished due to safety concerns or design barriers. The use of the word “impossible” however establishes a standard or threshold determination that state or federal agencies will not be able to make. This could be addressed with the term ‘not practicable’ rather than ‘impossible’. (CIAQC1) (CALPASC)

Comment: SA Recycling has an ongoing issue relating to how it can safely retrofit its equipment. There is currently an extremely high standard to meet in order to obtain a clearance from CARB relating to safety. For several months SA Recycling has evaluated placing CARB-verified devices on several quarry trucks used to move scrap metal. However, there is a safety conflict with the visual obstruction that a multiple filter system would present. Unfortunately the device manufacture has been less than cooperative to give us a written evaluation. If we are able to get that evaluation, the standard that your staff is setting would require documentation from us that must state it is “impossible” to do a filter installation safely. We request removal of the “impossible” language in the safety determination that sets us up for the impossibility that we will receive a fair evaluation of legitimate safety conflicts associated with retrofit devices. (FARANO1)

Comment: The staff is proposing a test for determination on the installation of VDECS is impossible. We think that’s not a very realistic test, that it’s an unachievable objective, and that you need to look at infeasible or impractical as the definition for determination on the installation of VDECS. (CIAQC2)

Comment: In your amendment as far as safety, you mention if the VDECS can’t be put on and it’s impossible. Don’t give enforcement the wording “impossible,” because then you can come out and someone can sit there and try to have us spend a fortune to try to make it work and it still won’t work. (ERRECA)

Comment: I would also reiterate the term of “impossibility”. That is really kind of a killer to us, and I think you need to seriously consider that. (FARANO2)

Comment: I’ll reiterate what everybody else is saying, that the threshold of impossible is not reasonable on a subjective process such as safety. I request that you take a good look at that. And it should be something that would be modified to say something that is practical. (SHAW)

Comment: Relax the safety determination by removing the impossible language. It sets the bar too high. (EGCA)

Comment: You've obviously heard the word "impossible" several times this morning. Clearly that's something we're not fond of either. But what I would suggest is that staff continues the progress they're trying to make with the Occupational Safety and Health Standards Board in terms of selection which standards, whether they're ISO or SAE, some form of standards that we can abide by. Obviously as an installer and someone with a lot to gain or lose by doing this right or doing this wrong, we very clearly need to understand what our rules are, what the rules of engagement are. We will abide. We just need to know what they are very soon. (IRONMAN)

Agency Response: As part of Resolution 09-50, the Board directed staff to replace the word "impossible" with "infeasible." This change was incorporated into staff's proposed amendments, and was released via the Notice of Public Availability of Modified Text on April 15, 2010, for a 15-day comment period. For more information on this amendment, please see the 15-day Notice which is available at: <http://www.arb.ca.gov/regact/2009/offroad09/offroad09.htm>.

Additionally, as recommended by commenter IRONMAN, we will continue to work with the Occupational Safety and Health Standards Board on standards for safe retrofit installations. Until a final standard is adopted, ARB and the Division of Occupational Safety and Health (Cal/OSHA) have agreed on an [interim retrofit visibility policy](#) to address retrofit visibility concerns for off-road diesel vehicles. This interim policy is available on ARB's website at: <http://www.arb.ca.gov/msprog/ordiesel/vdecssafety.htm>

4. Limited Exemption from Future Turnover

Comment: CIAQC recommends that future NOx turnover requirements if the highest level VDECS are installed prior to March 11, 2011 not be limited to 15 percent as proposed. To achieve maximum participation, incentives should not be limited. Staff must quantify how it determined that increasing the proposed 15 percent limit could forego over a third of total NOx emission benefits. (CIAQC1) (CALPASC) (FARANO2)

Comment: SA Recycling appreciates that some incentives have been offered for equipment owners to take early retrofit action. However, it makes no sense to limit these incentives to 15 percent of the company's horsepower. In today's market, many companies are just barely getting by with minimal if any profits and it is difficult to obtain the extra cash to take advantage of the early incentives. If the incentives are beneficial enough, SA would put in the extra effort to achieve the early retrofit credit. The problem is that there are many other business and economic obstacles to deal with and a 15 percent limit in effect de-incentivizes the incentive. We suggest credit toward early action not be limited. (FARANO1)

Comment: On limiting the early carrot, what I'll call the early retrofit provision, we'd like to see that expanded beyond 15 percent if possible. (EDGAR)

Agency Response: We disagree with the commenters because we believe extending the exemption from future turnover to more than 15 percent of a fleet's horsepower would likely lead to a loss in emission benefits in the long-term. If this turnover exemption were not capped, it is possible that a fleet could retrofit all of its vehicles, and therefore be exempt from all turnover requirements in the regulation. If this were to occur, all of the NOx reductions anticipated from that fleet would be lost through 2020 (in other words, the fleet's long-term NOx emissions would be higher). We modeled various potential levels at which to set the cap and chose 15 percent as the level most likely to spur the maximum number of early retrofits, while still resulting in minimal loss of long-term emissions benefits.

5. Double PM Credit Extension for Small and Medium Fleets

Comment: The Double Credit purchase deadline should be extended to December 31, 2009 and the VDECS installation deadline should be extended to March 1, 2010. (LEHIGH)

Comment: The double-credit provision should be extended to large fleets, many of which include larger horsepower, higher dollar machines that are harder to replace. The available options for those fleet operators are significantly smaller than they are for, say medium and small engines. The Board should consider extending the deadline – if not the same as proposed for small or medium fleets – at least until the Board hears the next update from staff, whether that's in six months or a year. (IRONMAN)

Agency Response: As stated in the Staff Report for these amendments, we did not propose to extend the deadline for receiving double PM credit for large fleets beyond January 1, 2010, for the following reasons. First, for fleets already required to install retrofits to meet the 2010 or 2011 compliance years (i.e., those with inadequate AB 8 2X credits to delay retrofitting), the commenters' proposal would have the effect of reducing the number of vehicles retrofitted, not increase the number. For example, if a fleet would already be required to install retrofits in 2011, giving double credit for those retrofits would provide no further incentive to that fleet but instead would simply allow that fleet to retrofit half as much horsepower. Second, if the provisions for double retrofit credits were extended for several years, large fleets would lose the incentive to retrofit immediately to receive double credit, as they would be able to delay retrofitting several years and still receive double credit. Finally, we did not extend double retrofit credit because it could lead to long-term emission disbenefits in that fleets with that credit would be able to delay future compliance actions. For all these reasons, we kept the large fleet double credit deadline at January 1, 2010.

Commenter LEHIGH did not specify what fleet size should get the double credit extension; however, we are assuming LEHIGH was referring to large fleets, since staff was already proposing an extension in credit for medium and small fleets (beyond the deadlines requested by LEHIGH) at the time the comment was made.