

**OCCUPATIONAL SAFETY
AND HEALTH STANDARDS BOARD**

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Work Plan for Rulemaking Regarding Petition 507

Objective: To amend Title 8 standards to address safety hazards that may be created by placing large or bulky exhaust filters on off-road construction vehicles.

The milestones put forth in this document are in line with the steps the Governor's Office recommended as a way forward that achieves safety in the workplace and meets air quality standards.

During the process, Board staff will afford the Petitioners and other stakeholders the opportunity to observe field tests, offer input and be updated as to the progress of the overall rulemaking effort.

Rulemaking Milestones and Decision Points

1. A reliable methodology for testing the visibility impact (masking) of exhaust retrofits is to be developed and agreed upon.
2. A field testing program to generate the masking data is to be developed and agreed upon.
3. Field testing is to be completed.
4. The field test masking data, pollutant reduction data and whatever other data are needed is to be reviewed in order to make the "de minimus masking" determination.
5. With the "de minimus masking" determination in mind, a rulemaking proposal is to be developed.
6. The Labor and Workforce Development Agency must sign off on the rulemaking proposal.

Rulemaking Work Plan

Note: Joint ARB and Cal/OSHA Interim Retrofit Visibility Policy issued on October 21, 2009.

December 2009

1. ARB to convene Retrofit Visibility Working Group, which includes OSHSB, DOSH and Petitioners, to review and comment on ARB's proposed exemption process, guidance documents, visibility test methods and exemption application package as they relate to the ARB/DOSH Interim Visibility

Policy, which prohibits retrofit installations that obstruct the operator's view towards the ground (i.e. zero masking policy). ARB staff to release, post, and publicize final documents.

- **Retrofit Visibility Work Group met on December 7, 2009**

ARB convened the Retrofit Visibility Work Group, which met for the first time on December 7, 2009. The workgroup includes representatives from the Operating Engineers Union, Associated General Contractors, Manufacturers of Emissions Control Association, California Department of Transportation, as well as manufacturers of off-road equipment and retrofit devices. Workgroup members were subsequently invited to field visits conducted to work on visibility test method development and all field visits conducted to assess the feasibility of retrofits on the most common vehicles. Agenda Items from the Work Group meeting were:

- Proposed ARB Policies for: 1) fleets with retrofits already installed; 2) fleets with orders placed for retrofits; and 3) fleets who postponed retrofit orders.
- Exemption process for retrofits that would violate the Interim Visibility Policy
- Visibility Test Procedure
- Work Plan

- **ARB created Retrofit Visibility Safety webpage at**

<http://www.arb.ca.gov/msprog/ordiesel/vdecssafety.htm>

Website includes information on 1) Interim Visibility Policy and FAQs; 2) visibility guide on installing retrofits in compliance with interim visibility policy; 3) Visibility/safety Exemption process/application; and, 4) Photos of vehicle retrofits with no visibility impairment.

2. ARB staff to draft, and solicit DOSH and OSHSB staff input on, a work plan to assess the feasibility of retrofits on the most common vehicles, including scheduling visits to examine and take measurements on vehicles and coordinating the participation of Retrofit Visibility Workgroup.

- **ARB, DOSH, and OSHSB met on December 10 to discuss work plan**
- **Work plan presented at December 17, 2009 Board Meeting**
- **Field Test for development of a test method to measure visibility impact of exhaust retrofits took place on December 22, 2009 (Sacramento)**

January 2010

1. OSHSB staff to develop a draft visibility test method to measure masking caused by retrofits.

- **Draft test method developed and defined during field tests**

2. ARB, with DOSH and OSHSB participation, to conduct field tests to determine reliability of OSHSB test method (i.e. is it practical for all retrofit applications and does it provide reproducible results).

- **Field Tests took place on January 7 (Sacramento), January 14 (Truckee), and January 29 (Sacramento) using working draft of visibility test method**
3. Based on results of field tests, OSHSB to modify test method, and ARB, DOSH, and OSHSB staff to jointly develop additional test method(s), as needed, including method(s) to measure “de minimus masking”.
 - **Visibility test method (12 pages with 18 diagrams depicting test procedures) finalized on February 4.**
 4. ARB staff to begin posting results of tests conducted on the most common vehicles.
 - **Results were not posted in January because the test method was still being finalized.**

February 2010

1. ARB, with DOSH and OSHSB participation, to continue conducting field tests to collect data and evaluate the reliability of the test method(s). ARB, DOSH, and OSHSB to solicit comments on proposed test method(s) and modify the method(s) as needed.
 - **ARB solicited comments from working group on draft visibility test and list of most common vehicles to test.**
 - **Field Test and Work Group met on February 24**
2. ARB staff to continue posting results of tests conducted on the most common vehicles.

March 2010

1. ARB, with DOSH and OSHSB participation, to continue conducting field tests to collect data and evaluate the reliability of the test method(s). ARB staff to continue posting results of tests conducted on the most common vehicles.
 - **Field Tests took place on March 10 and March 24 (Sacramento)**
 - **ARB requested information from the work group via a survey of retrofit installations on 50 most common vehicles.**
 - **Off-Road Implementation Advisory Group (ORIAG) met on March 29.**
2. ARB to review retrofit safety exemptions, which must be submitted by March 1, 2010, and compile data on the masking that would be created if the retrofit were allowed.
 - **ARB posted 5 Exemption applications (approval pending)**
 - **ARB provided an addendum that specifies how measurements could be taken if the method were to include use of mirrors to OSHSB staff for comment on March 30. Staff agree further consideration is necessary before the addendum is sent to the group or added to the draft method.**

April 2010

1. ARB to compile data from field tests and exemption requests and provide an estimate of the number of vehicles that would be retrofitted under different allowable masking criteria. DOSH and OSHSB staff to review and comment on data analysis.
 - **ARB provided a summary of responses from installers regarding vehicles that can be retrofit underhood or otherwise out of view (such as battery box installations, or direct muffler replacements).**
 - **ARB, DOSH and OSHSB met on April 28 to discuss results and work plan**
 - **Field tests took place on April 23 (East Sacramento) and April 30 (West Sacramento)**
 - **ARB grants first exemption requests for 5 vehicles that cannot be retrofit without impairing visibility. These exemptions will be updated on the website at:
<http://www.arb.ca.gov/msprog/ordiesel/vdecexempt.htm>**
 - **ARB convened a visibility work group teleconference on May 11, 2010 to discuss the summary of the results of the field study to date, including an estimate of the number of vehicles that would be retrofitted under certain masking criteria.**
2. ARB, DOSH, and OSHSB staff to prepare and submit to the Governor's Office the proposed visibility test method(s) and allowable masking criteria to be incorporated in the OSHSB rulemaking proposal.
 - **The final decision on the test method and allowable masking is pending the results of tests on a few small rollers and forklifts, which are scheduled to be conducted in May.**

May 2010

1. The Administration makes its "de minimus masking" determination.
2. OSHSB staff develops the text of the rulemaking proposal along with supporting documents.

June 2010

1. The Agency signs-off on the rulemaking package and OSHSB notices it for public hearing.

August 2010

1. The OSHSB holds a public hearing on the proposal.