

1 KAMALA D. HARRIS
 Attorney General of California
 2 SARA J. RUSSELL, State Bar No. 84704
 Supervising Deputy Attorney General
 3 NICHOLAS STERN, State Bar No. 148308
 Deputy Attorney General
 4 1300 I Street, Suite 125
 P.O. Box 944255
 5 Sacramento, CA 94244-2550
 Telephone: (916) 323-3840
 6 Fax: (916) 327-2319
 E-mail: Nicholas.Stern@doj.ca.gov
 7 *Attorneys for Defendant*
Mary D. Nichols, Chairperson of the California Air
 8 *Resources Board, and James Goldstene., Executive*
Officer of the California Air Resources Board
 9

10 IN THE UNITED STATES DISTRICT COURT
 11 FOR THE EASTERN DISTRICT OF CALIFORNIA
 12 SACRAMENTO DIVISION
 13

14 **CALIFORNIA DUMP TRUCK OWNERS**
 15 **ASSOCIATION,**
 16
 Plaintiff,
 17
 v.
 18
MARY D. NICHOLS, Chairperson of the
 19 **California Air Resources Board, and**
JAMES GOLDSTENE, Executive Officer of
 20 **the California Air Resources Board,**
 21
 Defendant,
 22
NATURAL RESOURCES DEFENSE
 23 **COUNCIL, INC.,**
 24
 Defendant-Intervenor.
 25

2:11-CV-00384-MCE-GGH

**DECLARATION OF SHARON
 LEMIEUX IN SUPPORT OF
 DEFENDANTS MARY NICHOLS AND
 JAMES GOLDSTENE’S OPPOSITION
 TO MOTION FOR PRELIMINARY
 INJUNCTION**

Date: December 15, 2011
 Time: 2:00 p.m.
 Courtroom: 7
 Judge The Honorable Morrison C.
 England, Jr.
 Trial Date June 3, 2013
 Action Filed: February 11, 2011

26 I, Sharon Lemieux, declare:

27 1. The facts stated in this declaration are true of my own personal knowledge, and if
 28 called as a witness in this matter I could and would testify competently thereto.

1 2. The opinions stated in this declaration are based on my education, experience, and
2 knowledge of air pollution health impacts, health risk assessments and emissions control.

3 3. I received my Bachelor of Science degree in Industrial Engineering at California
4 Polytechnic University in Pomona, California in 1991. I received a Professional Engineering
5 license in Mechanical Engineering in 2002.

6 4. I am the Chief of the Heavy-Duty Diesel In-Use Strategies Branch, Mobile Source
7 Control Division of the California Air Resources Board (the Board). I have held this position
8 since 2010. I have worked in the field of air pollution for over 14 years and with the Board since
9 1997. Other positions I have held with the Board include: Air Resource Supervisor 1 from 2005
10 until 2010; Staff Air Pollution Specialist from 2001 until 2005, and Air Resources Engineer from
11 1997 until 2001.

12 5. In my present capacity as Chief of the Heavy-Duty Diesel In-Use Strategies Branch, I
13 oversee all aspects of the Board's verification and compliance program for retrofit control devices
14 used on non-new in-use vehicles that operate in California. The Heavy-Duty Diesel In-Use
15 Strategies Branch was responsible for development and drafting of the regulation for
16 "Verification Procedure, Warranty and In-Use Compliance Requirements for In-Use Strategies to
17 Control Emissions from Diesel Engines," (Verification Procedure) California Code of
18 Regulations, title 13, sections 2700-2711. Note: all section references, unless specifically noted
19 otherwise are to the Verification Procedure.

20 6. The Verification Procedure is an outgrowth of the Board's adoption of its "Risk
21 Reduction Plan to Reduce Particulate Matter Emissions from Diesel-Fueled Engines and
22 Vehicles" (Diesel Risk Reduction Plan), adopted in September 2000, which paved the way for
23 the development of control measures designed to reduce toxic diesel particulate matter (PM)
24 emissions. Through this plan, staff identified strategies, including air toxics control measures and
25 other regulations, to reduce diesel emissions by 75 percent by 2010, and by 85 percent by 2020.

26 7. One strategy that has been utilized by the Board is to require owners of diesel engines
27 operated in California to install diesel retrofit devices that will achieve up to 85 percent diesel PM
28 emissions reductions. Under the Verification Program, manufacturers submit diesel emission

1 control strategies (i.e., diesel retrofit devices or PM filters) for verification to the Board for
2 review. Manufacturers interested in verification must submit a pre-application that includes, but
3 is not limited to, detailed information on system design, how it functions, and a proposed test
4 plan. All devices must be based on sound principles of science and engineering. All applicants
5 must conduct a durability demonstration of the retrofit devices by showing compliance with the
6 requirements of Table 3 of section 2704, and conduct emissions testing using standardized test
7 procedures per the requirements of sections 2703 and 2706. Devices that use fuel based strategies
8 must also meet the multimedia evaluation requirements of section 2710. Applicants are required
9 to submit a final application with all required materials, including, but not limited to, test data,
10 owners and installation manuals, warranty statements, laboratory reports, and additional
11 supporting information. After review of the application and information provided by the
12 manufacturer of the diesel emission control strategy, the Board determines whether the diesel
13 emission control strategy merits verification at a specific level of control. A strategy will be
14 verified as a Level 3 strategy if it is determined that it will achieve at least an 85 percent PM
15 reduction, by mass, assuming the terms and conditions of the governing Executive Order or
16 Conditional Verification letter are met and that the device is maintained and serviced
17 appropriately.

18 8. As part of the verification process, section 2707(a)(1)(A) requires that
19 manufacturers of diesel emission control strategies warrant to ultimate users of the strategy that
20 the strategy is free from defects in design, materials, workmanship, or operation that cause the
21 strategy to fail to conform to the emission control performance level to which it was verified.

22 9. Additionally, installers of verified diesel emission control strategies must warrant that
23 the strategy's installation is free from defects in workmanship or materials that cause the strategy
24 to fail to conform to the emission control performance level to which it was verified.

25 10. To date, the Board has verified 39 PM filters as Level 3 diesel emission control
26 strategies for use on on-road heavy-duty diesel trucks and busses that operate in California.
27 There are two basic types of verified PM filters that are distinguished by the method in which
28 soot and ash are removed from the filter (i.e., filter regeneration): passive filters and active filters.

1 Passive PM filters are catalyzed and rely on the exhaust temperature of the engine to regenerate
2 the device whereas active PM filters are not dependent on the exhaust temperature of the vehicle
3 engines and utilize an independent heat source to facilitate filter regeneration. There are two
4 primary active PM filter types. One requires that the filter be “plugged” in to an electrical source
5 to regenerate while the other is an on-board fuel injection system. Some active systems require
6 that the engine be turned off, or at idle to regenerate while others can operate when the engine is
7 operating.

8 11. All currently verified technologies targeting on-road applications require a sequential
9 warning system that alerts the operator that the device will need to be regenerated in the near
10 future, and one indicating that more immediate regeneration is necessary if the original warning is
11 ignored. Thus, the vehicle operator should receive notification that regeneration is necessary in
12 time to be able to safely do so. The factors which are critical for successful device operation of a
13 specific device are listed in the governing Executive Order, and these conditions must be met for
14 the device to be considered appropriate for the given application. As such, the specific nature of
15 the application (e.g. – dump truck, refuse vehicle, transit bus) is less important than ensuring that
16 the conditions described in the Executive Order are met.

17 12. A vehicle operator would have to carefully evaluate a PM filter’s operational
18 characteristics to ensure that a particular retrofit device would work for their operations. To assist
19 in this decision making process, all retrofit Executive Orders clearly state the exhaust temperature
20 requirements for passive systems. For active systems, the Executive Orders dictate temperature
21 requirements if applicable and that the device manufacturer provide a written estimate for how
22 long a retrofit can go between regenerations for each and every vehicle the PM filter is installed
23 on.

24 13. To date, more than 25,000 Level 3 devices have been sold/installed on on-road
25 heavy-duty diesel trucks and busses that operate in California, including concrete mixers.
26 Concrete mixers usually have a very cold-duty cycle since they tend to idle for long period of
27 times; accordingly, a passive system would not, in general, work properly on such a vehicle.
28 However, as mentioned, “active” PM filters can be installed and have been demonstrated to

1 function properly on concrete mixers, provided that the engine meets all the terms and conditions
2 of the verified PM filter's Executive Order. Given the variety of retrofit systems available, I am
3 not aware of any operational needs of cement mixers that would preclude them from being
4 retrofitted as long as the retrofit is carefully selected.

5 14. The Heavy-Duty Diesel In-Use Strategies Branch monitors and tracks warranty
6 claims on all verified emission control strategies that have been sold and installed as retrofit
7 devices on non-new heavy-duty diesel vehicles that operate in California. I have reviewed the
8 warranty reporting data for Level 3 strategies that have been received by the Board to date.
9 Verified device manufacturers submit a Diesel Emission Control Strategy Warranty Report
10 (warranty report) to the Executive Officer annually by April 1 of each calendar year for each
11 verified system with a unique diesel emission control strategy family name. The applicant must
12 also submit a warranty report within 30 calendar days if, at any time, warranty claims exceed four
13 percent of the number of diesel engines using the diesel emission control strategy. The warranty
14 report must include the following information:

15 (1) Annual and cumulative sales, and annual and cumulative leases of diesel
16 emission control systems (California only).

17 (2) Annual and cumulative production of diesel emission control systems (California
18 only).

19 (3) Annual summary of warranty claims (California only). The summary must
20 include:

21 (A) A description of the nature of the claims and of the warranty replacements
22 or repairs. The applicant must categorize warranty claims for each diesel emission control
23 strategy family by the component(s) replaced or repaired.

24 (B) The number and percentage of diesel emission control systems of each
25 model for which a warranty replacement or repair was identified.

26 (C) A short description of the diesel emission control system component that
27 was replaced or repaired under warranty and the most likely reason for its failure.
28

1 (4) Date the warranty claims were filed and the engine family and application the
2 diesel emission control systems were used with.

3 (5) Delineate the reason(s) for any instances in which warranty service is not
4 provided to end-users that file warranty claims.

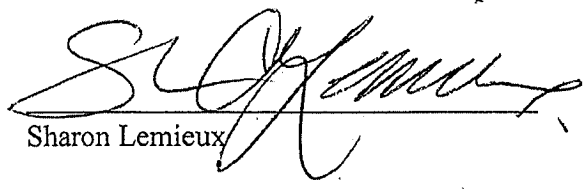
5 15. Where warranty claims exceed four percent, the Executive Officer may modify,
6 revoke or suspend the existing verification. The warranty reports are confidential and are marked
7 as such. In general, the warranty reports show that overall retrofits devices have been
8 successfully deployed with relatively few issues.

9 16. My staff has reviewed the warranty reports for all on-road technologies. Based on
10 this information, in the totality of all warranty reports for Level 3 systems provided to the ARB,
11 there were only five instances of warranty involving dump trucks identified. Two of the five
12 were attributed to installation issues, and the remaining involved system components, which
13 should not directly affect filter functionality or efficiency. Therefore overall, no information
14 provided has indicated systemic problems inherent to any verified devices. Retrofits are robust
15 and working properly in the field. My staff has investigated several fleets complaining about
16 their retrofits. Invariably, most if not all retrofits complaints stem from a poorly maintained or
17 malfunctioning engine or the fact that the retrofit was never cleaned or otherwise maintained
18 properly.

19
20
21
22
23
24
25
26
27
28

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28

I declare under penalty of perjury, under the laws of the United States of America, that the foregoing is true and correct and that this Declaration was executed in Sacramento, California on November 30, 2011.



Sharon Lemieux