



Minnesota Pollution Control Agency

October 31, 2001

Ms. Arleen Shulman
Pennsylvania Department of Environmental Protection
P.O. Box 8477
Harrisburg, Pennsylvania 30354

2001 NOV -9 AM 8:17
RECEIVED
REVIEW COMMISSION

Dear Ms. Shulman:

The Minnesota Pollution Control Agency is pleased to offer its support to Pennsylvania's proposed rule requiring heavy-duty diesel engines (HDDEs) in model years 2005 and 2006 to meet California's testing procedures in order to be sold or placed in service. The State of Minnesota recently proposed adopting a similar requirement.

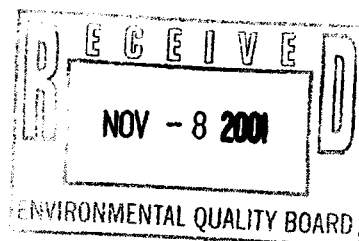
Minnesota shares Pennsylvania's concerns about emissions from HDDEs, including pollutants that form ground-level ozone and fine particulate matter as well as those that contribute to regional haze. Consequently, Minnesota is concerned about the potential for backsliding by HDDE manufacturers in the years after their consent decrees expire and effective date of EPA's rules. We believe that requiring HDDEs to continue to pass the testing procedures in effect from 2002 to 2004 and from 2007 onward is a technically feasible and cost-effective approach to improve air quality in Pennsylvania and in Minnesota. Given the level of interstate truck transport, adopting your proposed rule should provide air quality benefits across the nation as well.

We look forward to working closely with Pennsylvania on this and other measures to improve our nation's air quality in the future.

Sincerely,

Elizabeth Shevi, Director
Policy & Planning Division

ES:lh





COMMONWEALTH OF MASSACHUSETTS
EXECUTIVE OFFICE OF ENVIRONMENTAL AFFAIRS
DEPARTMENT OF ENVIRONMENTAL PROTECTION
ONE WINTER STREET, BOSTON, MA 02108 617-292-5500

JANE SWIFT
Governor

BOB DURAND
Secretary

LAUREN A. LISS
Commissioner

October 29, 2001

David E. Hess
Environmental Quality Board
Post Office Box 8477
Harrisburg, Pennsylvania 17105-8477

Dear Mr. Hess:


The Commonwealth of Massachusetts is pleased to submit this letter in support of Pennsylvania's proposed rule, "Heavy-Duty Diesel Emissions Control Program," requiring any new heavy-duty diesel engine manufactured, sold or registered in Pennsylvania for model year 2005 or 2006 be certified to meet the California standards. This rule will ensure that emission standards for 2005 and 2006 are as protective as the standards in place from 2002 to 2004. Like Pennsylvania, Massachusetts shares serious concerns about emissions from heavy-duty diesel engines that contribute to air pollution problems: ground-level ozone, pollution from fine particulates, regional haze, and acid deposition.

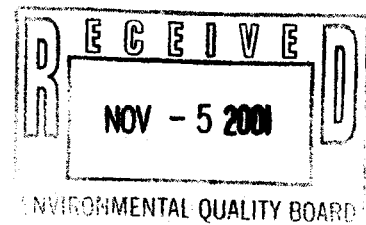
Given the level of interstate truck transport throughout the U.S., lessening pollution from heavy-duty diesel engines is an important issue. Adoption of consistent and harmonious heavy-duty diesel engine regulations is an important opportunity for Massachusetts and Pennsylvania, as well as the remainder of the states, to stand together in pursuit of clean air.

Massachusetts is very concerned about the potential for backsliding by heavy-duty engine manufacturers between the time federal consent decrees expire after 2004 and the introduction of EPA's 2007 heavy-duty standards. Therefore, Massachusetts has proposed the same regulation being considered in Pennsylvania. We believe that this is the most effective way to ensure that the economic and regulatory playing field is leveled and that the opportunity for backsliding is minimized or eliminated.

We look forward to continuing to work closely with Pennsylvania on this and other regulatory programs.

Sincerely,


James C. Colman
Assistant Commissioner
Bureau of Waste Prevention



This information is available in alternate format by calling our ADA Coordinator at (617) 574-6872.

DEP on the World Wide Web: <http://www.state.ma.us/dep>

 Printed on Recycled Paper



State of New Jersey

DONALD T. DiFRANCESCO
Acting Governor

Department of Environmental Protection
Office of Air Quality Management
401 East State Street
P.O. Box 418
Trenton, New Jersey 08625-0418
Phone: (609)777-1345
Fax: (609)633-6198

Robert C. Shinn, Jr.
Commissioner

October 31, 2001

Environmental Quality Board
PO Box 8477,
Harrisburg, PA 17105-8477

Re: Heavy-Duty Diesel Emissions Control Program

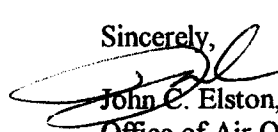
To Whom It May Concern:

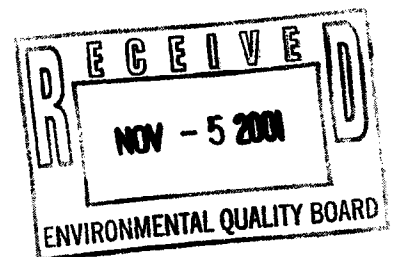
The State of New Jersey is pleased to submit this letter in support of Pennsylvania's proposed rule which would require that any new heavy-duty diesel engine manufactured for model year 2005 or 2006 be certified to meet the California standard in order to be sold or placed into service. Like Pennsylvania, New Jersey shares serious concerns about emissions from heavy-duty diesel engines that contribute to such serious air pollution problems in the northeast as ground-level ozone, fine particulate, regional haze, and acid deposition.

Given the level of interstate truck transport throughout the northeastern United States, pollution from heavy-duty diesel engines is very much a regional issue. Adoption of consistent and harmonious heavy-duty diesel engine regulations is an important opportunity for New Jersey and Pennsylvania, as well as the remainder of the northeast states, to stand together in pursuit of clean air and a strong economy.

The State of New Jersey is very concerned about the potential for backsliding by the manufacturers between the time the consent decrees expire after 2004 and the introduction of EPA's 2007 heavy-duty testing requirements. Therefore, the New Jersey Department of Environmental Protection has proposed the same requirements being considered in Pennsylvania. Our proposal was published in the New Jersey Register on July 16, 2001 at 33 N.J.R. 2381(a). We expect to adopt this regulation on October 31, 2001; publication in the New Jersey Register is scheduled for December 3, 2001. We believe that this is the most effective way to ensure that the economic and regulatory playing field is leveled and that the opportunity for backsliding is minimized or altogether eliminated.

We look forward to continuing to work closely with Pennsylvania on this and other regulatory programs of great regional importance in the future.

Sincerely,

John C. Elston, Administrator
Office of Air Quality Management





Environmental Quality Board

ORIGINAL: 2211

p.o. box 8477 * harrisburg, pa. 17105-8477 - (717)787-4526

December 20, 2001

RECEIVED
2001 DEC 21 AM 8:01
INDEPENDENT REGULATORY
REVIEW COMMISSION

Mr. Robert E. Nyce, Executive Director
Independent Regulatory Review Commission
14th Floor, Harrisstown #2
333 Market Street
Harrisburg, PA 17120

Re: Misrouted Comment – Heavy-Duty Diesel Emissions Control Program (#7-365)

Dear Mr. Nyce:

Enclosed is a comment letter from Andrew R. Stewart of Latham & Watkins on behalf of International Truck and Engine Corporation. The existence of these comments was brought to my attention today. The letter and its attachments were addressed to Arleen Shulman and were therefore sent directly to her office on the 12th Floor of the Rachel Carson State Office Building instead of to the EQB mailing address that is listed in the “public comments” section of the preamble. Since these comments were received in the Department of Environmental Protection during the public comment period, they will be addressed in the final rulemaking.

I apologize for the confusion. Please call me if you have any questions.

Sincerely,

Sharon F. Trostle
Regulatory Coordinator

Enclosure

BOSTON
CHICAGO
FRANKFURT
HAMBURG
HONG KONG
LONDON
LOS ANGELES
MOSCOW
NEW JERSEY

Latham & Watkins

ATTORNEYS AT LAW
WWW.LW.COM

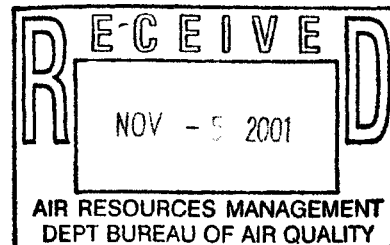
NEW YORK
NORTHERN VIRGINIA
ORANGE COUNTY
PARIS
SAN DIEGO
SAN FRANCISCO
SILICON VALLEY
SINGAPORE
TOKYO
WASHINGTON, D.C.

November 2, 2001

RECEIVED
2001 DEC 21 AM 8:01
REVIEW COMMISSION

VIA FEDERAL EXPRESS

Ms. Arleen Shulman
Environmental Quality Board
Pennsylvania Department of Environmental Protection
Rachel Carson State Office Building, 12th Floor
P.O. Box 8468
Harrisburg, PA 17105-8468



Re: Proposed Rulemaking to Amend Chapters 121 and 126, Pennsylvania Heavy-Duty Diesel Emissions Control Program

Dear Ms. Shulman:

On behalf of International Truck and Engine Corporation ("International"), we appreciate the opportunity to submit the enclosed comments in connection with the Pennsylvania Department of Environmental Protection's ("DEP") above-referenced rulemaking to adopt the California Not-to-Exceed ("NTE") and other supplemental emission standards and test procedures. International previously submitted the enclosed comments in connection with the California Air Resources Board's ("CARB") rulemaking to adopt the NTE requirement and supplemental standards, known as the "Consideration of Amendments to Adopt Not-To-Exceed and EURO III European Stationary Cycle Emission Standards and Test Procedures for the 2005 and Subsequent Model Year Heavy-Duty Engines and Vehicles."

As set forth in the enclosed comments, we believe that there are serious questions regarding the legality of California's NTE standard and other supplemental emission standards and test procedures. First, California seeks to apply these requirements to Model Year 2005 engines and vehicles, in direct violation of the Clean Air Act's "lead time" and "stability" requirements, which the EPA already has found apply to its NTE and other supplemental emissions standards. Second, California has not shown that the NTE and other supplemental emissions standards are technologically feasible as required by the Clean Air Act. Indeed, CARB has not one iota of in-use testing data demonstrating compliance with its NTE standard

Ms. Arleen Shulman

November 2, 2001

Page 2

even though the NTE applies in-use during essentially all reasonably expected operating conditions. For these reasons, the California regulation violates the Clean Air Act. International recently filed an action in federal district court in California challenging the legality of CARB's adoption of the NTE and other supplemental emission standards and, given the pendency of litigation concerning the NTE, Pennsylvania's adoption of such standards would be premature.¹ (A copy of the complaint in that action is enclosed herewith.)

Additionally, International questions whether the DEP will ensure that the appropriate diesel fuel is available in Pennsylvania for heavy-duty diesels subject to the NTE. As an initial matter, the California NTE regulation includes not only the underlying emission standard, but also the test procedures for determining compliance with the emission standard. See Cal. Code Regs. tit. 13, § 1956.8(b) (heavy-duty diesel emission standard regulation that incorporates by reference test procedures). The certification test requirements in turn specify what type of fuel must be used in testing. See California Exhaust Emission Standards and Test Procedures for 1985 and Subsequent Model Heavy-Duty Diesel Engines and Vehicles (providing certification test procedures, including test fuel specifications). By adopting the California NTE standard, the DEP therefore adopts not only the underlying emission standard, but also necessarily adopts the NTE certification test fuel specifications.

A key requirement of the NTE test fuel provisions is that the certification fuel must be the "predominant" fuel that vehicles employ in-use. Indeed, to obtain an engine certification, the "manufacturer must submit evidence . . . demonstrating that the test fuel will be the predominant in-use fuel." California Exhaust Emission Standards and Test Procedures for 1985 and Subsequent Model Heavy-Duty Diesel Engines and Vehicles, B-11 (incorporating 40 C.F.R. § 86.1313-90(b)(2)) (emphasis added). Similarly, the "[f]uels specified for emissions testing are intended to be representative of commercially available in-use fuels." *Id.* (incorporating 40 C.F.R. § 86.1313-90(b)(1)) (emphasis added). The California NTE certification test fuel provisions appear to allow manufacturers to certify using federal fuel, as the NTE certification provisions incorporate federal fuel regulations. See *id.* (incorporating 40 C.F.R. § 86.1313-90(b)(2)).

Although the California NTE appears to allow manufacturers in California to certify on federal fuel, in reality, the certification fuel for the California NTE will be California test fuel, which is different from the federal fuel. By regulation in California, "no person shall sell, offer for sale, or supply any vehicular diesel fuel unless . . . (A) [t]he aromatic hydrocarbon content does not exceed 10 percent by volume . . ." Cal. Code Regs. tit. 13, § 2282(a) (emphasis added); compare Cal. Code Regs. tit. 13, § 2282(a) with 40 C.F.R. § 86.1313-98(b)(2) (setting forth diesel test fuel specifications, including aromatic hydrocarbon composition requirement of

¹ Defendants did not contest International's arguments that the NTE and other supplemental emission standards violated the Clean Air Act's lead time, stability and technological feasibility requirements, but the Court accepted Defendants' argument that the case was not ripe for judicial resolution because the EPA may deny California's request for a waiver of Clean Air Act preemption.

Ms. Arleen Shulman
November 2, 2001
Page 3

27%). Because the California NTE requires manufacturers to utilize certification fuel that is equivalent to the in-use fuel, manufacturers of California engines must utilize California low aromatic hydrocarbon fuel -- the predominant in-use fuel in California -- for certification. *See* California Exhaust Emission Standards and Test Procedures for 1985 and Subsequent Model Heavy-Duty Diesel Engines and Vehicles, B-11 (the "manufacturer must submit evidence . . . demonstrating that the test fuel will be the predominant in-use fuel.") Because the DEP must adopt certification requirements along with the NTE standard, the NTE certification fuel in Pennsylvania must therefore must be low aromatic hydrocarbon California fuel, rather than federal fuel. Moreover, to satisfy the requirement that the certification fuel must be the "predominant" in-use fuel, the California low aromatic hydrocarbon fuel must be available in-use in Pennsylvania.

Based on these considerations, adoption of the proposed regulations by the DEP without mandating the availability and use of California diesel fuel would place both the manufacturer and consumer in a quandary. In Pennsylvania, for example, a manufacturer whose engines utilize federal fuel in-use, but are certified on California fuel, could be in violation of its underlying certification. See California Exhaust Emission Standards and Test Procedures for 1985 and Subsequent Model Heavy-Duty Diesel Engines and Vehicles, B-11 (providing that to obtain an engine certification, the engine "manufacturer must submit evidence . . . demonstrating that the test fuel will be the predominant in-use fuel.") Additionally, a consumer utilizing federal fuel in a vehicle and engine certified to California fuel potentially could be considered misfueling in violation of Section 211(g) of the Clean Air Act, 42 U.S.C. § 7545(g).

Furthermore, if the DEP fails to ensure that California fuel is the predominant in-use fuel in Pennsylvania, the DEP's NTE standards would appear to violate the identity requirement of Section 177 of the Clean Air Act, 42 U.S.C. § 7507. Because the DEP necessarily adopts the California NTE certification fuel requirements in adopting the California NTE standard, and because the California NTE certification provisions require that California diesel fuel (rather than federal fuel) be used for certification *and* be the predominant in-use fuel, the DEP's NTE standards could not be identical to the California standards unless California fuel is mandated for use in Pennsylvania.

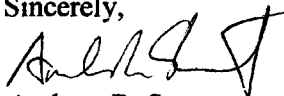
Finally, the adoption by Pennsylvania of the California NTE and the other emission standards at this time is inconsistent with the plain language of Section 177 of the federal Clean Air Act, which provides that states may adopt California emissions standards only after California has obtained a waiver of preemption from the United States Environmental Protection Agency. 42 U.S.C. § 7507. The DEP has proposed to adopt the California NTE and other supplemental emission standards despite the fact that California has not yet even applied for a waiver of preemption for such standards.

LATHAM & WATKINS

Ms. Arleen Shulman
November 2, 2001
Page 4

We appreciate your consideration of our comments.

Sincerely,

A handwritten signature in black ink, appearing to read "Andrew R. Stewart", written over a horizontal line.

Andrew R. Stewart
of LATHAM & WATKINS

Enclosures

cc: Michele Smith, Esq.
David A. Piech, Esq.

**Enclosures in Support of Comments of
International Truck and Engine Corporation**

- | | |
|-------------|--|
| Enclosure 1 | Comments of International Truck and Engine Corporation regarding Consideration of Amendments to Adopt Not-To-Exceed and EURO III European Stationary Cycle Emission Standards and Test Procedures for the 2005 and Subsequent Model Year Heavy-Duty Engines and Vehicles submitted in letter format on 10/5/00 |
| Enclosure 2 | Supplemental Comments of International Truck and Engine Corporation, dated 12/4/00 (including exhibits in support thereof) |
| Enclosure 3 | Addendum to Supplemental Comments of International Truck and Engine Corporation, dated 12/7/00 (including exhibits in support thereof) |
| Enclosure 4 | Complaint for Declaratory and Injunctive Relief, filed 6/27/01 |

LATHAM & WATKINS

ATTORNEYS AT LAW

305 MONTGOMERY STREET, SUITE 1000
SAN FRANCISCO, CALIFORNIA 94111-2502
TELEPHONE (415) 391-0600
FAX (415) 395-8095

PAUL R. WATKINS (1800-1073)
CANA LATHAM (1800-1074)

CHICAGO OFFICE

SEARS TOWER, SUITE 3600
CHICAGO, ILLINOIS 60606
PHONE (312) 676-7700, FAX 693-9787

HONG KONG OFFICE

20TH FLOOR
STANDARD CHARTERED BANK BUILDING
403 VICTORIA ROAD CENTRAL, HONG KONG
PHONE +852-2522-7888, FAX 2522-7006

LONDON OFFICE

88 BISHOPSGATE, ELEVENTH FLOOR
LONDON EC4M 3RF ENGLAND
PHONE +44-20-7710-1000, FAX 7374-4460

LOS ANGELES OFFICE

433 WEST FIFTH STREET, SUITE 4000
LOS ANGELES, CALIFORNIA 90071-2007
PHONE (213) 485-1234, FAX 891-8783

MOSCOW OFFICE

ULITSA GABRIELA 7, 8TH FLOOR
MOSCOW 123098, RUSSIA
PHONE +7-095 768-1234, FAX 768-1235

NEW JERSEY OFFICE

ONE NEWARK CENTER, 18TH FLOOR
NEWARK, NEW JERSEY 07101-3174
PHONE (973) 630-1234, FAX 630-7299

NEW YORK OFFICE

805 THIRD AVENUE, SUITE 1000
NEW YORK, NEW YORK 10022-4802
PHONE (212) 606-1200, FAX 751-4804

ORANGE COUNTY OFFICE

930 TOWN CENTER DRIVE, SUITE 2000
COSTA MESA, CALIFORNIA 92626-0825
PHONE (714) 540-1235, FAX 755-6200

SAN DIEGO OFFICE

701 'B' STREET, SUITE 2100
SAN DIEGO, CALIFORNIA 92101-8100
PHONE (619) 238-1234, FAX 806-1235

SILICON VALLEY OFFICE

135 COMMONWEALTH DRIVE
MENLO PARK, CALIFORNIA 94025
PHONE (650) 326-4800, FAX 462-2600

SINGAPORE OFFICE

80 RAFFLES PLACE, 21st-22nd
FLOOR PLAZA 2, SINGAPORE 048824
PHONE +65-536-1181, FAX 536-1181

TOKYO OFFICE

KAWAMATSU BUILDING 15th FLOOR
2-10-1 KYOGASAKI, CHUO-KU
TOKYO 100-0031, JAPAN
PHONE +81-3-5524-1000, FAX 5524-1001

WASHINGTON, D.C. OFFICE

1001 PENNSYLVANIA AVE. N.W. SUITE 1300
WASHINGTON, D.C. 20004-2503
PHONE (202) 637-2200, FAX 637-2201

FILE NO. 1010255-0189

October 5, 2000

VIA FACSIMILE AND U.S. MAIL

Mr. Michael Carter
Chief, Emission Research and Regulatory Development Branch
Air Resources Board
9528 Telstar Avenue
El Monte, California

Re: Consideration of Amendments to Adopt Not-To-Exceed and EURO III
European Stationary Cycle Emission Standards and Test Procedures for
the 2005 and Subsequent Model Year Heavy-Duty Engines and Vehicles

Dear Mr. Carter:

On behalf of our client, International Truck and Engine Corporation ("International"), we appreciate the opportunity to submit comments regarding the California Air Resources Board's ("ARB") consideration of amendments to adopt the Not-to-Exceed ("NTE") and other supplemental emission standards and test procedures for Model Year ("MY") 2005 and later heavy-duty engines and vehicles. For the reasons described below, the proposed NTE standards are not technologically feasible and are inconsistent with state and federal legal requirements.

• Who Is International?

International, formerly known as Navistar International Transportation Corp., is a major North American manufacturer of medium and heavy-duty trucks and buses marketed under the "International®" brandname. International is the world's largest manufacturer of mid-range (160-300 hp) diesel engines. The Company's engines are more than 97 percent on-road certified. International supplies these engines both to its other divisions and to other customers.

DC_DOCS333397.1 (W97)

Mr. Michael Carter
October 5, 2000
Page 2

including Ford Motor Company. International is Ford's exclusive supplier through the year 2012 of V-8 diesel engines for heavy-duty pickups. These heavy-duty vehicles would be subject to ARB's proposed NTE emission standards, as would International's engines for its medium and heavy-duty vehicles and school buses.

• **The NTE Emission Standards Are Not Feasible**

The current heavy-duty engine ("HDE") emission standards are premised on the Federal Test Procedures ("FTP") which, as the ARB proposal states, reflect a prescribed set of engine operation test points that represent the typical, or real-world, operation of a vehicle in-use. The FTP-based standards are based on averages -- to the extent that a certification test engine satisfies the FTP, it will be deemed to meet on average the prescribed emission standard.

ARB, however, proposes to adopt the NTE requirements that EPA has advanced as part of the MY 2004 and MY 2007 HDE rulemakings.¹ The NTE requirements would establish an absolute cap on emissions variability contemplated under the FTP. In particular, the proposal would impose NTE zones under the engine's power curve where the engine may not exceed 1.25 times the specified emissions limit for any of the regulated pollutants. Although the NTE recognizes that engine emissions will rise and fall below the average emissions standard, it nonetheless places an absolute cap on such natural emissions variability (which occurs due to production variability or other effects such as temperature, pressure, humidity, and combustion characteristics) at 1.25 times the underlying standard for a 30 second interval. Thus, notwithstanding that engines are designed to meet, on average, the FTP-based emission standards promulgated by EPA, such engines will not be certified if they exceed 1.25 times the applicable emissions standard at any point in the NTE zone.

To our knowledge, it is not feasible to meet (and there is no data to support) the proposed NTE requirements in connection with the MY 2004 HDE standards. EPA's and ARB's sole basis for proposing such requirements appears to be the agreement by several Consent Decree companies to undertake NTE testing requirements. The feasibility of such requirements, however, cannot be established simply because several Consent Decree companies agreed in a litigation context and behind closed doors to undertake such tests. As part of its Consent Decree, International never agreed to undertake NTE requirements because the

¹ EPA's NTE requirements are being proposed as supplemental test procedures and emissions standards. 64 Fed. Reg. at 58488. ARB's proposal similarly characterizes the NTE as an emission standard. Even assuming that the NTE requirements were characterized solely as test procedures, as discussed below, there is no question that (a) these requirements effectively create new emissions standards because they increase the stringency of the proposed MY 2004 HDE standards, (b) test procedures that result in new emissions standards are substantive standards for rulemaking purposes, and thus (c) the NTE must meet technological feasibility requirements under state and federal law.

Mr. Michael Carter
October 5, 2000
Page 3

Company had serious concerns about the feasibility of meeting such requirements. International informed EPA and ARB of our concerns then, and continues to have those concerns now. It is telling that the NTE is the subject of intense debate on the federal level, as Consent Decree companies that signed up for the NTE are finding that the NTE cannot be satisfied under real-world operating conditions. Indeed, at a September 13, 2000 public meeting regarding the Consent Decrees, EPA and the U.S. Department of Justice acknowledged that serious technical issues exist concerning the NTE.

Why is the NTE a problem? To meet the proposed NTE emission standards and test procedures, engine manufacturers would have to design their engines to meet an FTP-based standard that is significantly below the proposed FTP standard. This means that the NTE emission standard effectively establishes a more stringent *de facto* underlying FTP standard. Neither EPA nor ARB, however, have shown that the NTE standard is technologically feasible when applied to the MY 2004 or proposed MY 2007 HDE standards.²

International is unaware of any feasible pathway to meeting the proposed NTE standards, and neither EPA nor ARB has provided analysis or data indicating that the NTE standards could be met by the technologies that EPA and ARB project will be available to achieve the FTP-based standard in MY 2004. Although ARB suggests in its proposal that several Consent Decree companies have provided EPA and ARB with data suggesting that the NTE may be feasible, International has seen no such data and believes that no such data could exist as a practical or theoretical matter with respect to engines designed to the MY 2004 FTP standards. There is certainly no evidence that manufacturers could comply with the NTE over the NTE's wide-range of actual vehicular operating and varying ambient conditions, which inevitably will cause emissions at times to exceed the NTE even though the FTP is met.

Consequently, as stated above, manufacturers will be required to design their engines for emissions performance significantly below the FTP standard simply to meet the NTE standard. However, dropping the certification target significantly below the FTP standard raises serious, and indeed fatal, technological feasibility concerns. For the MY 2004 HDE emission standards, the NTE would require manufacturers to design engines to meet levels far below the FTP-certification levels, notwithstanding the complete absence of any data showing that such standards could be met.

Moreover, for the proposed federal MY 2007 HDE standards, the NTE effectively would require manufacturers to develop zero emission HDEs. This is because -- with standards

² Unlike past rulemakings, in which EPA has shown the technological feasibility of proposed standards through actual engine performance data, EPA has failed to provide any data in either the 2004 or 2007 rulemaking record showing the technological feasibility of the NTE given the technology projected to be used to meet those standards.

Mr. Michael Carter
October 5, 2000
Page 4

of 0.01 g/bhp-hr particulate matter ("PM") and 0.20 g/bhp-hr nitrogen oxides ("NO_x") -- the NTE establishes an emissions surface that is essentially equivalent to the emissions standards. By way of illustration, for PM emissions, the NTE would place an emissions cap of 1.25×0.01 g/bhp-hr on all points within the NTE zone, which equals 0.0125 g/bhp-hr. This obviously leaves an extremely small emissions compliance margin over the underlying FTP standard. In fact, using conventional rounding methods, the 0.0125 rounds to 0.01 g/bhp-hr, *which is the same as the underlying FTP standard.*³ Given inherent emissions variability in HDEs, nothing short of a zero emission HDE would satisfy the NTE. Not only is that result unrealistic, but it is clearly infeasible for any technology projected to be available for 2007 and later model year HDEs.

• **The NTE Is Fundamentally Incompatible With The Underlying FTP-Based Standards It Purports To Test**

Even viewed as a test procedure (as well as an emission standard), the NTE is unworkable because it is fundamentally incompatible with the underlying FTP-based standard. Instead of testing compliance with the proposed FTP based standard, the NTE measures conformity with an altogether different standard -- i.e., 1.25 x FTP standard. Thus, notwithstanding that engines are designed to meet, on the average over 1,200 seconds within a specific temperature range, the FTP standard promulgated by EPA, such engines will not be certified if they exceed 1.25 times the applicable standard at any point in the NTE zone for a 30-second average over a wide temperature, humidity, and pressure range.⁴ As stated above, to the best of our knowledge, an engine designed to comply with the FTP-based emissions standard could not meet the NTE requirement of 1.25 x the FTP standard under any given operating condition, even though the engine conforms with the applicable emissions standards, on average, over the engine's useful life. In that respect, the net result of the NTE requirement is effectively to nullify the underlying FTP-based standard. Because the NTE measures an entirely different

³ See 40 C.F.R. § 86.094-28(a)(4)(i)(B)(2)(ii) (setting forth standard practice for using significant digits in test data to determine conformance with specifications); cf. Cal. Code Regs., tit. 13, § 1960.1 (same).

⁴ By way of illustration, assume that a certification engine meets a standard of 2.5 g/bhp-hr over the FTP transient cycle. In meeting the 2.5 g/bhp-hr standard, it is reasonable to assume that the emissions profile moves from 1.0 to 4.0 g/bhp-hr during normal engine operations. The NTE, however, will limit this emissions profile because it caps the higher emissions value at 3.125 g/bhp-hr. The resulting FTP average would be approximately 2.0 g/bhp-hr, i.e., $(3.125 + 1.0)/2$, instead of the applicable 2.5 g/bhp-hr standard. In fact, the EPA has data which show that engines, certified after the "off-cycle" investigation, operate under certain conditions at levels considerably above 1.25 x FTP that nonetheless will meet the FTP certified limits over their useful life.

Mr. Michael Carter
October 5, 2000
Page 5

standard, compliance with the NTE bears no relevance to compliance with the FTP-based standard and does not test conformity with that standard.

The inherent inapplicability of the NTE to the FTP standard is further illustrated by the fact that the FTP test cycle itself includes emissions excursions that exceed 1.25 times the standard. Nonetheless, under the FTP test, an engine is still in compliance, even if emissions exceed 1.25 times the standard during the test, so long as, at the end of the twenty-minute test cycle, the engine's average emissions are at or below the applicable standard. That same engine, tested pursuant to the NTE over an equivalent real-world short sampling period, would be out of compliance if it exceeded 1.25 times the FTP standard. The mere fact that excursions above the NTE occur does not allow the conclusion that an engine will not meet the FTP standard on average over its useful life, any more than an excursion above the NTE cap during the FTP test cycle necessarily means that an engine will not meet the FTP standard. Thus, the NTE is fundamentally inconsistent with the FTP and therefore inappropriate as a compliance test.

• **ARB's Proposed NTE Requirements Undermines ARB's Commitments Pursuant To The Statement Of Principles**

Because ARB's proposal would undermine the technological feasibility of the MY 2004 HDE emission standards, it is clear that this proposal contravenes the most basic tenets of the principals set forth the 1995 Statement of Principles ("SOP") between ARB, EPA and leading heavy-duty engine manufacturers (including International). See 60 Fed. Reg. 45602 (August 31, 1995). The SOP established the ambitious MY 2004 emissions targets for HDEs that were codified by regulation in 1997. See 62 Fed. Reg. 54694 (October 21, 1997). International remains committed to the MY 2004 emission reduction targets, and has dedicated considerable time and resources to developing new engine technologies to meet those targets. As ARB is aware, the signatories developed the SOP to achieve historic emissions reductions from heavy-duty engines – but in a manner that is realistic for industry. For International, a key principle of the SOP was that it would provide increased certainty and stability for our business planning. As the SOP states,

Without such certainty and stability, industry would not commit - to the enormous investment that the [proposed emissions] standards will require. And, without such certainty and stability, those investments might never be recouped. EPA and California recognize the huge investment that will be required of industry [to meet the proposed MY 2004 standards]. Under the Act, the minimum period of stability that EPA must provide for new on-highway heavy-duty engine emissions standards is three years. However, EPA and California acknowledge that under this SOP industry will be making a commitment that will require more than the minimum period of stability.

Mr. Michael Carter
October 5, 2000
Page 6

60 Fed. Reg. at 45604.

Based on these principles, International committed to meet heavy-duty engine standards that continue to represent the boundary of technological feasibility. In turn, the SOP explicitly confirms that the proposed standards would be premised on current federal test procedures, recognizing that changes to test procedures could affect industry's ability to meet the standards. In short, by committing to the SOP, the ARB recognized that a longer lead time was required for the MY 2004 HDE standards along all heavy-duty product lines, and that industry would invest significant sums in developing engines to meet standards which are now suddenly changed for all HDEs by virtue of the NTE. The proposed NTE requirement represents a significant departure from the SOP because it undermines the principles of "certainty and stability" set forth in the SOP and because it results in an unjustifiable increase in the stringency of emission control requirements and renders the MY 2004 HDE standards technologically infeasible.

• **The NTE Is Inconsistent With Legal Requirements And ARB's Commitments Under The Statement Of Principles**

Given the inherent problems associated with the NTE standards, it is not surprising that EPA and ARB have failed to supply data showing the feasibility of the NTE standard with respect to the MY 2004 (let alone the proposed MY 2007) HDE emission standards. And, because the NTE requirements are not feasible, they violate state and federal legal requirements. At the threshold, ARB is entitled to establish emissions standards that are more stringent than federal standards only if it obtains a "preemption waiver" pursuant to Section 209 of the Clean Air Act ("CAA"). 42 U.S.C. § 7543(b). California's preemption waiver, however, is subject to certain conditions, including the requirement that its emissions standards be consistent with Section 202(a) of the CAA. 42 U.S.C. § 7543(b)(1)(C). Section 202(a), in turn, requires that any new standards be technologically feasible. See 42 U.S.C. § 7521; Motor and Equip. Mfrs. Ass'n v. Nichols, 142 F.3d 449, 463 (D.C. Cir. 1998) ("In the waiver context, section 202(a) 'relates in relevant part to technological feasibility and to federal certification requirements.'") (citing Ford Motor Co. v. EPA, 606 F.2d 1293, 1296 n. 17 (D.C. Cir. 1979)); see also Motor & Equip. Mfrs. Ass'n v. EPA, 627 F.2d 1095, 1111 (D.C. Cir. 1979) (consistency with the CAA requires standards to be "technologically feasible"). The California legislature has imposed a similar requirement. See Cal. Health & Safety Code § 43013 (ARB "may adopt and implement motor vehicle emission standards...which [ARB] has found to be necessary, cost-effective, and technologically feasible.") (emphasis added).⁵ For the reasons described above,

⁵ ARB has authority only to adopt test procedures to determine whether a HDE is in compliance with emission standards established under Health & Safety Code § 43101 (which requires such standards to be necessary and technologically feasible). See Cal. Health & Safety Code § 43104. Even if viewed as a test procedure (in addition to an emissions standard), the NTE therefore would violate California law for the reasons described above because (1) the NTE does not

Mr. Michael Carter
October 5, 2000
Page 7

however, the NTE standards are not technologically feasible. Consequently, just as the EPA's NTE program is unlawful on technological feasibility grounds,⁶ so too would any such requirement adopted by ARB.⁷

Section 202(a) of the CAA also imposes mandatory leadtime and stability requirements on ARB, which means that ARB may not impose any NTE requirements until MY 2007 at the earliest (even assuming that ARB had authority to establish a NTE standard). In particular, Section 202(a) of the CAA mandates that any new HDE standard "shall apply for a period of no less than 3 model years beginning no earlier than the model year commencing 4 years after such revised standard is promulgated." 42 U.S.C. § 7521(a)(2)(C). From a stability standpoint, this requirement means that any new HDE emission standards that go into effect must stay in effect for three years before ARB may establish another standard. In MY 2004, new HDE standards will take effect. See 62 Fed. Reg. 54,694 (Oct. 21, 1997); 40 CFR § 86.004-11 (1999); Cal. Code Reg., tit. 13, § 1956.8. Because ARB may not lawfully revise HDE standards until three model years have passed from the effectiveness of the new standards, ARB may not lawfully impose new emissions standards -- including the NTE -- until MY 2007, at the earliest.⁸

determine compliance with underlying emissions standards, but rather *de facto* imposes new, more stringent emissions standard; (2) ARB has no authority to promulgate testing procedures that impose new emissions standards and fail to determine compliance with underlying standards; and (3) the new emissions standards that are imposed are technologically infeasible and inconsistent with legal requirements, as discussed in the following section.

⁶ It is also apparent that the NTE would unlawfully create a new emissions standard based on absolute emissions caps rather than average emissions. Under Section 202(a) of the CAA and analogous California law, ARB is authorized only to promulgate emissions standards that reflect the average emissions over a variety of engine cycles during an engine's useful life.

⁷ Section 202(a)(3)(A) of the CAA, as well as analogous requirements under the California Health & Safety Code, require that ARB consider costs and related factors in setting a new standard. 42 U.S.C. § 7521(a)(3)(A) (requiring that EPA give "appropriate consideration to cost, energy and safety factors" associated with the application of technology used to achieve new emissions standards); Cal. Health & Safety Code § 43018 (ARB "shall adopt standards and regulations [to reduce emissions from motor vehicles] which will result in the most cost-effective combination of control measures on all classes of motor vehicles and motor vehicle fuel...."). There is no question that because the NTE would require manufacturers to design engines that, in addition to meeting the FTP-based standard, would also have to meet the more stringent NTE requirements, the costs associated with the imposition of the NTE would be significant -- if not prohibitive. Consequently, there appears to be no basis under federal or state law for ARB to establish controls that, by definition, could not be cost-effective.

⁸ It should be noted that ARB could not escape the foregoing 3-year stability requirement by accelerating the NTE to apply to MY 2004 standards since ARB is still subject to the 4-year leadtime requirement under Section 202(a) of the CAA. In short, because we are in MY 2000,

LATHAM & WATKINS

Mr. Michael Carter
October 5, 2000
Page 8

We hope that the ARB finds our comments to be useful as it deliberates on the question of whether NTE standards should be imposed on MY 2005 and later HDEs certified in California. As our comments make clear, we believe that the answer to this question is "no."

Very truly yours,



Patricia Guerrero
of LATHAM & WATKINS

cc: Michele Smith, Esq.
David A. Piech, Esq

the earliest that any new HDE standard could be imposed would be MY 2005 under the 4-year leadtime requirement. However, given the 3-year stability requirement, the MY 2004 HDE standards will be locked in for at least three years, meaning that (i) no new standards, including the NTE, could be imposed in MY 2005, and (ii) MY 2007 is the earliest that any such standards could be mandated.

STATE OF CALIFORNIA
AIR RESOURCES BOARD

SUPPLEMENTAL COMMENTS OF
INTERNATIONAL TRUCK AND ENGINE CORPORATION

Notice Of Public Hearing To Consider
Amendments To Adopt Not-To-Exceed And
Euro III European Stationary Cycle Emission
Test Procedures For The 2005 And Subsequent
Heavy-Duty Diesel Engines

) Mail Out #00-20 And Subsequent
) Notice of Public Hearing
) Board Hearing: December 7, 2000
)
)
)

International Truck and Engine Corporation
455 N. Cityfront Plaza Drive
Chicago, IL 60611

December 4, 2000

TABLE OF CONTENTS

I.	Introduction.....	1
II.	Discussion.....	2
A.	✓ ARB's Proposed NTE Requirement Undermines ARB's Commitments Pursuant To The Statement Of Principles	2
B.	The Proposed NTE Emission Standard And Test Procedure Is Inconsistent With The Mandates Of The Clean Air Act And California Law	3
1.	✓ The NTE Emission Standard Is Not Technologically Feasible	3
2.	ARB's Proposal Violates The Mandatory Lead Time And Stability Requirements Of The Clean Air Act	7
3.	The ARB Has Failed To Demonstrate The Cost Effectiveness Of Its Proposal	9
C.	The Proposed NTE Requirement Is An Emission Standard, Not Simply A Test Procedure	9
D.	✓ As A Test Procedure, The NTE Requirement Is Fundamentally Incompatible With The Underlying FTP-Based Standard It Purports To Test.....	10
E.	ARB Has Failed To Provide Any Information In Response To Public Records Act Requests Demonstrating That The NTE Standard And Test Procedure Is Technologically Feasible	11
III.	Conclusion	16

I. Introduction

On September 15, 2000, the Staff of the ARB published a mail out announcing its intent to consider adopting certain amendments to California's emission standards and test procedures for on-highway heavy-duty diesel engines and vehicles. The ARB Staff's proposed amendments would require heavy-duty diesel engines ("HDEs") to meet infeasible Not-To-Exceed ("NTE") and Euro III Stationary Cycle ("Euro III") emission standards and test procedures for Model Year ("MY") 2005 and subsequent model years.

International Truck and Engine Corporation ("International") is a major North American manufacturer of medium and heavy-duty trucks and buses marketed under the "International®" brandname. International is the world's largest manufacturer of mid-range (160-300 hp) diesel engines. The Company's engines are more than 97 percent on-road certified. International supplies these engines both to its other divisions and to other customers, including Ford Motor Company. International is Ford's exclusive supplier through the year 2012 of V-8 diesel engines for heavy-duty pickups. These heavy-duty vehicles would be subject to ARB's proposed emission standards and test procedures, as would International's engines for its medium and heavy-duty vehicles and school buses. International submitted its original comments discussing the Company's significant concerns with the proposed NTE emission standard and test procedure in a letter dated October 5, 2000, attached as Exhibit 1 and incorporated herein. As discussed in International's comments, ARB's proposed NTE emission standard and test procedure is not technologically feasible and is inconsistent with state and federal legal requirements.

The Staff of ARB subsequently published a notice of the public hearing to consider the proposed amendments and a Staff Report: Initial Statement of Reasons, dated October 20, 2000 (the "Staff Report"). ~~There is no evidence in the Staff Report supporting a finding that the proposed NTE standard and supplemental test procedure is technologically feasible, as required under both California and federal law.~~ Similarly, the ARB failed to provide any evidence in response to International's Public Records Act requests that suffices to demonstrate that the NTE standard is or will be technologically feasible based on the technologies anticipated to be available for use on MY 2005 and later HDEs. ~~The only conclusion that can be reached is that there is no data to support the adoption of the NTE standard and supplemental test procedure.~~

Accordingly, as discussed in greater detail below, ~~the ARB should reject the Staff's proposal to adopt the NTE standard for the following reasons:~~

> *If Adopted By The Board, The Proposed Amendments Would Undermine The Commitments Made By ARB In The 1995 Statement Of Principles.* The proposed amendments -- which would require HDEs to meet infeasible NTE and Euro III emission standards and test procedures for MY 2005 and subsequent model years -- represent a fundamental and unjustifiable departure from the 1995 Statement of Principles ("SOP") between leading HDE manufacturers, the United States Environmental Protection Agency ("EPA") and ARB.

- **Violation Of Federal And State Law.** If adopted by the Board, the proposed amendments would not meet the mandates of the Clean Air Act ("CAA") and California law.
- **Technological Infeasibility.** The NTE requirements are technologically infeasible emission standards. The Staff have not cited to or analyzed any evidence supporting a finding that the NTE requirements feasibly can be met by MY 2005 or later HDEs under all "conditions which can reasonably be expected to be encountered in normal vehicle operation."
- **Violation Of Mandatory Lead Time And Stability Requirements.** The NTE requirements violate the mandatory lead time and regulatory stability requirements for HDE emission standards. Because new emission standards take effect in MY 2004 and must stay in effect for a period of three years to provide the requisite stability to the industry, the ARB cannot adopt new emission standards -- such as the NTE -- until MY 2007 at the earliest. The Board's proposal to adopt new NTE emission standards and test procedures for MY 2005 also violates the four year lead time requirement, which requires that manufacturers be given four full model years -- defined to include January 2 of the preceding year through December 31 of the model year date -- prior to the implementation of proposed standards.
- **The NTE Is Not A Test Procedure Only.** The Board cannot avoid the lead time and regulatory stability requirements by inaccurately re-characterizing the NTE requirements as test procedures only. Regardless of the label used, the NTE requirements constitute new emission standards because they increase the stringency of the underlying standards and are intended to decrease emissions.
- **As a test procedure, the proposed amendments are invalid.** Under the CAA and California law, a test procedure must be designed to measure conformity with the underlying standard. The NTE measures conformity with an altogether new and different requirement -- 1.25 x FTP standard. Specifically, unlike the FTP, it is an absolute cap on emission excursions under conditions which can reasonably be expected to be encountered in normal vehicle operation.

II. Discussion

A. ARB's Proposed NTE Requirement Undermines ARB's Commitments Pursuant To The Statement Of Principles

International and other leading HDE manufacturers have worked cooperatively with ARB and the EPA in the regulation of mobile sources under federal and state law for years. The 1995 Statement of Principles ("SOP") between leading HDE manufacturers, ARB and the EPA represents one of the most significant accomplishments resulting from this collaborative effort. The signatories developed the SOP to achieve historic emissions reductions from

HDEs -- but in a manner that is realistic for industry.¹ All of the signatories to the SOP, including the ARB, recognized that it would require an enormous investment by industry to commit to and meet the 2004 standards, and that this could only be accomplished by utilizing all of the lead time provided under the SOP and a period of stability for the new standards greater than the three year minimum required by the CAA. As the SOP states,

Without such certainty and stability, industry would not commit to the enormous investment that the [proposed emissions] standards will require. And, without such certainty and stability, those investments might never be recouped. EPA and California recognize the huge investment that will be required of industry [to meet the proposed MY 2004 standards]. Under the Act, the minimum period of stability that EPA must provide for new on-highway heavy-duty engine emissions standards is three years. However, EPA and California acknowledge that under this SOP industry will be making a commitment that will require more than the minimum period of stability.

60 Fed. Reg. at 45604. ~~Based on these principles, International committed to meet HDE standards that continue to represent the boundary of technological feasibility.~~

The ARB's proposed amendments represent a radical departure from the commitments embodied in the SOP. As discussed below, ARB is positioned to adopt new emission standards without regard to the fundamental technological feasibility, lead time and stability problems raised by its proposal.

B. The Proposed NTE Emission Standard And Test Procedure Is Inconsistent With The Mandates Of The Clean Air Act And California Law

The Board does not have unlimited authority to adopt emission standards and test procedures that are more stringent than federal standards. In order to comply with the mandates of federal and state law, the Board's proposed emission standards must be technologically feasible, and may be implemented only if the requisite four years of lead time and three year period of regulatory stability are provided to manufacturers. The Staff's proposed amendments fail to comply with these requirements and therefore must be rejected by the Board.

1. The NTE Emission Standard Is Not Technologically Feasible

Under both federal and state law, the ARB must demonstrate that any emission standards it proposes to adopt are technologically feasible. ~~The Board has not complied with these mandates, and there is no evidence that it can do so.~~

¹ The SOP established the ambitious, yet feasible, MY 2004 emissions targets for HDEs that were codified by regulation in 1997. See 62 Fed. Reg. 54694 (October 21, 1997).

Under Section 209(b) of the CAA, California must obtain a "preemption waiver" before it may adopt and attempt to enforce its own emission standards and test procedures. See 42 U.S.C. § 7543(b). ARB cannot obtain a waiver unless it demonstrates that its standards and test procedures are consistent with CAA Section 202(a). Id. Section 202(a), in turn requires that any new standards be technologically feasible. See 42 U.S.C. § 7521(a)(3) (requiring that standards "reflect the greatest degree of emission reduction achievable through the application of technology which the Administrator determines will be available for the model year to which such standards apply, giving appropriate consideration to cost, energy, and safety factors associated with the application of such technology"); Motor and Equip. Mfrs. Ass'n v. Nichols, 142 F.3d 449, 463 (D.C. Cir. 1998) ("In the waiver context, section 202(a) 'relates in relevant part to technological feasibility and to federal certification requirements.'") (citing Ford Motor Co. v. EPA, 606 F.2d 1293, 1296 n. 17 (D.C. Cir. 1979)); see also Motor & Equip. Mfrs. Ass'n v. EPA, 627 F.2d 1095, 1111 (D.C. Cir. 1979) (consistency with the CAA requires standards to be "technologically feasible").

California law also mandates that new emission standards be technologically feasible. Under the California Health & Safety Code, ARB is only authorized to "adopt and implement emission standards for new motor vehicles for the control of emissions therefrom, which standards the [ARB] has found to be *necessary and technologically feasible*." Cal. Health & Safety Code § 43101 (emphasis added).

The current HDE emission standards are premised on the FTP, which reflects a prescribed set of engine operation test points that model the typical, or real world, operation of a vehicle. The FTP-based standards are based on average emissions over a 20-minute operating cycle -- to the extent that a certification test engine satisfies the FTP, it will be deemed to meet on average the prescribed emission standard. ARB, however, proposes to adopt NTE requirements that would establish an *absolute* cap on emissions variability contemplated under the FTP. In particular, the proposal would impose NTE zones under the engine's power curve where an engine may never exceed 1.25 times the specified emissions limit for any of the regulated pollutants. To meet the proposed NTE requirements, engine manufacturers would have to design their engines significantly below the adopted FTP standard. The NTE emission requirements therefore effectively establish a more stringent *de facto* and therefore unlawful emission standard than what was actually adopted for the applicable model years by the ARB.

To our knowledge, it is not feasible to meet the proposed NTE requirements in connection with the MY 2004 HDE standards. Moreover, the Staff have failed to cite to or analyze any relevant data to support a finding that the proposed requirements are technologically feasible (although their attempt to address themselves to the purported technological feasibility of the NTE is an implicit acknowledgement that the NTE requirement is, in fact, an emission standard). The Staff instead appear to rely on two factors that purportedly provide "sufficient evidence" that the proposed requirements are technologically feasible: (1) the agreement of certain manufacturers to comply with NTE requirements as part of their Consent Decrees, and (2) the EPA's review of technology in connection with its 2004 and 2007 standards. See Staff Report at 25-26. Neither of these grounds can be relied upon to demonstrate the technological feasibility of the Staff's proposed NTE standard.

a. The Consent Decrees Of Certain Manufacturers

The fact that certain manufacturers (not including International) agreed -- in a litigation context and behind closed doors -- to comply with NTE requirements provides no evidence that the NTE requirements currently being proposed by ARB's Staff are technologically feasible. The agreement of certain manufacturers to undertake supplemental NTE obligations as part of their Consent Decrees was the result of lengthy negotiations arising out of claims asserted by EPA, ARB and the U.S. Department of Justice against the manufacturers. There is no finding in the Consent Decrees that the NTE requirements agreed to by certain manufacturers are, or will be, technologically feasible. Nor were the manufacturers under the same legal mandate imposed on ARB to affirmatively demonstrate that the NTE standards are technologically feasible. In any event, a Consent Decree entered into between certain litigants threatened with having their Certificates of Conformity withheld is not a substitute for the legislative mandate that a finding of technological feasibility be made by the ARB.

Although the manufacturers who agreed to undertake the NTE obligations may have believed they would be able to comply with these obligations in MY 2002, these same manufacturers are finding that the NTE cannot be satisfied under real world operating conditions.² Indeed, at a September 13, 2000 public meeting regarding the Consent Decrees, EPA and the U.S. Department of Justice acknowledged that serious technical issues exist concerning the NTE. ARB cannot ignore this evidence that the NTE emission standard and test procedure it is proposing is not technologically feasible.

Regardless of whether some manufacturers agreed to comply with NTE requirements, International did not. Moreover, the Consent Decrees of the manufacturers who

² See generally Control of Emissions of Air Pollution from 2004 and Late Model Year Heavy-Duty Highway Engines and Vehicles: Response to Comments. See also 65 Fed. Reg. 59911 (October 6, 2000) ("The majority of the engines subject to the [Consent Decrees] must meet a not-to-exceed emission limit of 1.25 times the 2004 HDDE standards....During the rulemaking process, several of the [Consent Decree] companies made public statements that they were having difficulty in preparing to meet all the [Consent Decree] requirements for pull-ahead engines."); DEN No. 179 (September 14, 2000), "Limits on Diesel Emissions for 2002 May Remain Despite Industry Concerns," p. A-2 ("The federal government is not about to grant heavy-duty diesel engine makers relief from stringent 2002 emission limits despite being sympathetic to the technical concerns of manufacturers, a top [EPA] attorney said Sept. 13."); DEN No. 149 (August 2, 2000), "Final EPA Rule on Diesel Truck Emissions Gives Industry Three More Years to Comply," p. A-6 ("In July 1999, the companies signed consent decrees with the Justice Department binding them to meeting 2004 emission standards, as well as the NTE standard, in 2002....However, the extent to which the companies will in fact meet standards in 2002 remains the subject of ongoing negotiations, attorneys with EPA and the Justice Department said on June 28."); DEN No. 127 (June 30, 2000), "Talks Continue on 2002 Diesel Limits in Government, Industry Consent Decrees," p. A-2 ("Diesel engine manufacturers and the federal government continue to negotiate over whether the companies can meet a 2002 emissions limit under all operating conditions, attorneys with the Justice Department and Environmental Protection Agency told a public meeting June 28.").

agreed to the NTE requirements include mechanisms such as dispute resolution procedures, not available under ARB's proposed NTE standard, that allow them to address technological feasibility issues.

b. EPA's Rulemaking Process

The ARB's Staff states that "EPA's review of technology offers sufficient evidence that the proposed requirements in this report are technologically feasible." Staff Report at 25. ~~In fact, neither EPA nor ARB have any evidence that engines designed to meet the 2004 emission standards could comply with the NTE over the NTE's wide-range of actual vehicular operating and varying ambient conditions, which inevitably will cause emissions at times to exceed the NTE even though the FTP is met.~~

To support a feasibility determination for its NTE requirements, EPA relied on the following factors: (1) the fact that several HDE manufacturers agreed to meet the NTE requirements as part of their Consent Decrees with EPA and ARB, and that approximately 75 HDE families were certified by July 2000 to comply with the then-applicable NTE emission limits; (2) the existence of confidential information and "secret" emission maps generated by certain manufacturers who agreed to meet the NTE requirements as part of their Consent Decrees with EPA and ARB; and (3) the "factual information contained in the rulemaking record." ARB cannot rely upon any of these factors to support a finding that its proposed NTE standard is technologically feasible.

First, as discussed above, the agreement of certain manufacturers to comply with NTE requirements resulted from a negotiated settlement and was not based on a finding of technological feasibility supported by any actual feasibility data. Similarly, the fact that 75 engines have been allegedly certified to the NTE standard on a 4.0 g/bhp-hr basis does not support any showing of technological feasibility with respect to ARB's proposed NTE, especially in light of the absence of any information from EPA showing these engines' in-use conformance to the NTE. Second, with respect to the confidential information and secret emission maps, there has been no independent and public scrutiny as to the relevance of such information to meeting the NTE requirements on a 2004 FTP standard for NO_x or PM. In any event, the secret emissions maps relied upon by the EPA were generated using engines that were alleged to contain questionable defeat devices, and are therefore irrelevant to ARB's present proposal.

Finally, EPA's own assertion, based on the "factual information contained in the rulemaking,"³ that the NTE is technologically feasible is unsupported and, moreover, contradicted by the same information. For example, EPA asserts that the NTE will be feasible utilizing the technologies needed to meet the 2004 standard. These include exhaust gas recirculation ("EGR") and diesel oxidation catalysts ("DOCs"). However, EPA notes that even EGR has its limits to reduce NO_x, especially at full loads, and, as a consequence of EGR use, there are "unacceptable" increases in PM emissions. As discussed, *infra*, ARB's own data on DOCs shows the limitations of such technologies under similar laboratory conditions as EGR is

³ See EPA Response to Comments at p. 8-4.

limited, i.e., high loads and speeds. These are just two examples of technologies that show that the 2004 FTP standard is technologically feasible, but fail to support the technological feasibility of the NTE standard and actually contradict EPA's and ARB's position.

In any event, the EPA has admitted it has no actual engine performance data that can be relied upon to demonstrate the technological feasibility of the proposed NTE requirements. International submitted requests under the Freedom of Information Act ("FOIA") requesting any data in EPA's possession demonstrating the feasibility of meeting the proposed NTE requirements in connection with the MY 2004 HDE standards. International specifically requested written confirmation of a statement made by EPA that EPA has no data and/or information confirming or measuring the NTE on the approximately 75 HDE families certified in July 2000. In a letter dated October 31, 2000, attached as Exhibit 2, EPA admitted that "[a]t present, EPA does not have any data showing NTE compliance." Although EPA speculates that the manufacturers that agreed to undertake the NTE requirements in their Consent Decrees will have such data in their possession to enable them to make Statements of Compliance, EPA provided no evidence that this would in fact occur. Even if such data were to become available, which International doubts, there is no current data to support ARB's adoption of the proposed NTE standard and test procedure at the present time.

In sum, the Staff's reliance on the EPA's "review" in connection with its 2004 and 2007 standards is misplaced. Both the Staff and the EPA recognize that there is no evidence to support a finding that the proposed requirements are technologically feasible over the NTE's wide-range of actual vehicular operating and varying ambient conditions.⁴

2. ARB's Proposal Violates The Mandatory Lead Time And Stability Requirements Of The Clean Air Act

As discussed above, California may not adopt its own emission standards unless such standards are consistent with Section 202(a) of the Act. See 42 U.S.C. § 7543(b). In addition to the requirement of technological feasibility, CAA Section 202(a) requires ARB to provide the mandated lead time and period of stability for any HDE standard it adopts:

Any standard promulgated or revised under this paragraph and applicable to classes or categories of heavy-duty vehicles or engines shall apply for a period of no less than 3 model years beginning no earlier than the model year commencing 4 years after such revised standard is promulgated.

⁴ See Exhibit 2 (Letter dated October 31, 2000 from John Guy of the EPA to David Piech of International, stating that EPA does not have any data showing NTE compliance); Staff Report at 25 ("In response to U.S. EPA's 1999 Notice of Proposed Rulemaking to adopt supplemental test procedures [for 2004], several manufacturers provided U.S. EPA and ARB with information and data regarding the testing and development work they have already performed. The data show that under some extreme ambient and operating conditions, some technologies are challenged to meet the NTE and ESC requirements without sacrificing performance.").

If ARB adopts the proposed NTE emission standard for HDEs, it will violate both the stability and lead time requirements. The stability requirement means that any new HDE emission standard that goes into effect *must* stay in effect for three years before ARB may establish another standard. ~~Because new HDE standards will take effect in MY 2004, ARB may not lawfully impose new emission standards, such as the NTE, until MY 2007 at the earliest.~~

~~Separate and apart from the stability considerations, ARB is prohibited from lawfully adopting the proposed NTE standard for MY 2005 due to the independent, mandatory lead time requirement. Lead time is calculated using full model years. EPA has defined a model year to include January 2 of the preceding year through December 31 of the model year date. EPA OMS Advisory Circular No. 6B (December 31, 1987). Under that definition, MY 2005 could begin as early as January 2, 2004. It is therefore too late to provide four full years of lead time for implementation of the proposed standards in 2005. Model Year 2006 would be the earliest date that such standards could be adopted consistent with the four year lead time requirement.⁵~~

The ARB's Staff state that "[t]he federal timing constraints . . . do not apply to California's rulemaking. Staff Report at 29. The Staff reason that "California has authority to adopt a separate state program of emission controls for new motor vehicles and new motor vehicle engines under CAA § 209(b)." *Id.* The Staff ignore the express limitation on California's authority to adopt new emission standards under CAA Section 209(b). Section 209(b) of the CAA authorizes California to adopt emission standards for mobile vehicles and engines *only if* certain conditions are met. Namely, ARB's proposed standards must be consistent with CAA Section 202(a), which contains the express congressional mandate that a minimum of four years lead time is necessary, and that HDE standards may not be lawfully revised until three model years have passed from the effectiveness of existing standards. *See* 42 U.S.C. § 7521(a)(3)(C).⁶ ~~The proposed NTE standard therefore cannot be implemented because~~

⁵ As previously stated, however, ARB would not be able to adopt the NTE standard for MY 2006 due to the stability requirement.

⁶ Although not cited in the Staff Report, the Staff appear to rely on Section 177 of the CAA, 42 U.S.C. § 7507, to support their position that ARB is not bound by the lead time and stability requirements of the CAA. The two provisions are entirely consistent with one another. Section 177 of the CAA establishes a general *minimum* period of lead time for all emission standards for light-duty and heavy-duty engines. Section 202(a)(3)(C) of the CAA specifically applies to emission standards for heavy-duty engines and raises the minimum amount of lead time that must be provided to HDE manufacturers to four years. 42 U.S.C. § 7521(a)(3)(C). The Staff therefore cannot rely on CAA Section 177 to support their position that ARB is not bound by the four year lead time and three year stability requirements of CAA Section 202(a), especially in light of the fact that the latter requirements must be complied with in order for ARB to obtain a preemption waiver to adopt and implement its own standards and test procedures under CAA Section 209(b). *See* 42 U.S.C. § 7543(b) (providing that a waiver cannot be granted where California's "standards and accompanying enforcement procedures are not consistent with section 7521(a), of this title," which contains the four-year lead time and three-year stability requirements for HDEs).

the requisite four year lead time and three year period of stability have not been provided to manufacturers.

3. The ARB Has Failed To Demonstrate The Cost Effectiveness Of Its Proposal

It is also worth noting that ARB has failed to take into account the costs of imposing the NTE, as required under the CAA and California law. See 42 U.S.C. § 7521(a)(3)(A) (requiring "appropriate consideration to cost, energy and safety factors" associated with the application of the technology used to achieve new emission standards); Cal. Health & Safety Code § 43018 (ARB "shall adopt standards and regulations [to reduce emissions from motor vehicles] which will result in the most cost-effective combination of control measures on all classes of motor vehicles and motor vehicle fuel...."); Cal. Health & Safety Code § 43018 (ARB "shall adopt standards and regulations [to reduce emissions from motor vehicles] which will result in the most cost-effective combination of control measures on all classes of motor vehicles and motor vehicle fuel...."). ~~There is no question that because the NTE would require manufacturers to design engines that, in addition to meeting the FTP-based standard, would also have to attempt to meet the more stringent NTE requirements, the costs associated with the imposition of the NTE would be significant -- if not prohibitive.~~ Consequently, there appears to be no basis under federal or state law for ARB to establish controls that could not be cost-effective.

C. The Proposed NTE Requirement Is An Emission Standard, Not Simply A Test Procedure

The initial mail out on the proposed amendments to California's exhaust emission standards was properly titled "Consideration of Amendments to Adopt Not-To-Exceed and Euro III European Stationary Cycle *Emission Standards* and Test Procedures for the 2005 and Subsequent Model Year Heavy-Duty Engines and Vehicles." See Mail Out #00-20, dated September 15, 2000, attached as Exhibit 3.⁷ In the federal rulemaking proceedings upon which ARB so heavily relies to support its proposal, EPA also characterized the NTE requirements as an emission standard.⁸ ~~ARB has now re-characterized the NTE standard as a "cap" or test procedure only, in an apparent attempt to evade the lead time and stability requirements imposed~~

⁷ ARB's Staff also characterized the proposed requirements as emission standards throughout the mail out. See, e.g., Mail Out #00-20, dated September 15, 2000 at 2 ("The remainder of this notice provides greater detail on the supplemental test, standards, feasibility of these standards, and preliminary emission benefit calculations."); id. at 3 ("The proposed amendments contain the following three main requirements for 2005 and subsequent model year heavy-duty diesel engines . . . [t]he new NTE Test with numerical emission standards of 1.25 times the FTP emission standards....").

⁸ See, e.g., 65 Fed. Reg. 59111 (October 6, 2000) ("Like current emission requirements, these new requirements [the NTE and supplemental steady state requirements] apply to certification, production line testing, and vehicles in actual use....The supplemental requirements establish new emission standards for HDDEs, and these new standards will be enforced in the same manner as the preexisting FTP standard.").

by the CAA. Regardless of the label used, the NTE requirements constitute new emission standards.

The proposed NTE standard will force manufacturers to design their engines to emission control levels significantly lower than the FTP-based standard, thereby effectively creating a new and more stringent *de facto* standard. In addition, the NTE requirements constitute emission standards because, according to ARB's own analysis, they are purportedly designed to reduce emissions. See Staff Report at 38-40. The courts have consistently found that such requirements are, by definition, standards. See, e.g., *American Auto. Mfrs. Ass'n v. Cahill*, 152 F.3d 196, 200 (2d Cir. 1998) ("We view 'standards relating to the control of emissions' as describing regulatory measures intended to lower the level of auto emissions...."); *Association of Int'l Auto. Mfrs., Inc. v. Commissioner, Massachusetts Dep't of Env'tl. Protection*, 208 F.3d 1, 14-15 (1st Cir. 2000) (same). As such, ARB cannot lawfully adopt the NTE requirements -- regardless of how it chooses to characterize such requirements -- unless it can demonstrate that the standards and test procedures are technologically feasible, and only if it provides the requisite four years of lead time and three year period of stability.

D. As A Test Procedure, The NTE Requirement Is Fundamentally Incompatible With The Underlying FTP-Based Standard It Purports To Test

Under both the CAA and California law, a test procedure must be designed to measure conformity with the underlying standard. Section 207 of the CAA authorizes compliance testing of vehicles in actual use "to ascertain whether, when in actual use throughout the warranty period . . . each vehicle and engine to which regulations under section 202 apply *complies with the emission standards of such regulations.*" 42 U.S.C. § 7541(b) (emphasis added). Similarly, the California Health & Safety Code only allows ARB to adopt test procedures "to determine whether such vehicles or engines are in compliance with the emission standards established pursuant to Section 43101." Cal. Health & Safety Code § 43104 (emphasis added).⁹ The California Health & Safety Code further states that the ARB "shall base its test procedures on federal test procedures or on driving patterns typical in the urban areas of California." *Id.*

As a test procedure, the NTE is unworkable because it is fundamentally incompatible with the underlying FTP-based standard. Instead of testing compliance with the FTP-based standard, the NTE measures conformity with an altogether new and different requirement-- *i.e.*, 1.25 x FTP standard. Thus, notwithstanding that engines are designed to meet, on the average over 1,200 seconds within a specific temperature range, the underlying FTP standard, such engines will not be certified if they exceed 1.25 times the applicable standard at any point in the NTE zone for a 30-second period over a wide temperature, humidity, and pressure range. In other words, it is possible that an engine would not meet the NTE requirement of 1.25 x the FTP standard under any given operating condition, even though the engine conforms with the applicable underlying FTP-based emission standards on average over the

⁹ California Health & Safety Code § 43101 allows ARB to "adopt and implement emission standards for new motor vehicles for the control of emissions therefrom, which standards [ARB] has found to be *necessary and technologically feasible.*" (Emphasis added).

engine's useful life. In that respect, the net result of the NTE requirement is effectively to nullify the underlying FTP-based standard. Because the NTE relates to an entirely different emission requirement, compliance with the NTE bears no relevance to compliance with the FTP-based standard and does not test conformity with that standard. The proposed NTE therefore violates both the CAA and California law because it does not determine compliance with underlying emission standards, but rather *de facto* imposes new, more stringent (and technologically infeasible) emission standards.

E. ARB Has Failed To Provide Any Information In Response To Public Records Act Requests Demonstrating That The NTE Standard And Test Procedure Is Technologically Feasible

International submitted several requests under the Public Records Act, Government Code §§ 6250 *et seq.*, for any information upon which ARB relies to assert that the NTE standard is technologically feasible within the lead time provided, as required under California and federal law.¹⁰ As discussed below, the limited amount of information supplied by ARB in response to International's requests is entirely irrelevant, and cannot be relied upon to support a finding that the NTE standard is technologically feasible.

1. Letter Dated November 2, 2000. In this letter, ARB referenced data provided by Allen Lyons, Chief of the New Vehicle/Engine Programs Branch, that Mr. Lyons "would classify as NTE data." This classification is incorrect. The data which was provided concerns the Euro III and related "mystery point" or "random point" test procedure -- a test procedure that is fundamentally different from the NTE emission standard and test procedure. Whereas the proposed NTE standard purports to measure emissions resulting from "any engine operating conditions that could reasonably be expected in normal vehicle use," including both steady-state and transient operating conditions,¹¹ the EURO III test procedure measures emissions under much more limited ambient conditions and only steady-state, rather than in-use, engine operating conditions.¹² In sum, the data provided by ARB is irrelevant because ARB failed to provide any

¹⁰ These Public Record Act requests were previously submitted to ARB to include in its Administrative Record in a letter dated November 6, 2000, attached as Exhibit 4.

¹¹ See Notice of Public Hearing at 3 ("[T]he NTE requirement would apply under any engine operating conditions that could reasonably be expected in normal vehicle use. A vehicle can be tested for compliance with the NTE procedure either on the road or in emissions testing laboratory using an engine or chassis dynamometer. Instead of using a specific driving cycle such as the FTP [federal test procedure], compliance testing can involve driving of any type which could reasonably be expected to occur in normal vehicle operation within the boundaries of the NTE control area, including operation under steady-state or transient conditions and under varying ambient conditions.").

¹² The EURO III test reflects an engine's average emissions over 13 different steady-state conditions (i.e., engine speed and load are held steady). This test recognizes that "real world" emissions from HDEs at times will be higher or lower than the applicable emission standards, but on average will meet the standard. To ensure that the EURO III averaging points accurately reflect the engine's "real world" operating conditions and emissions profile, the EURO III test includes 3 "mystery" emissions testing points that lie between steady state averaging points.

information from (1) in-use operations, (2) over the wide range of ambient conditions subject to the NTE, and (3) under the transient *and* steady-state operations subject to the NTE, much less data showing that measurement of emissions under such conditions were within 1.25 times the emission standard for the measured pollutants, as required by the proposed NTE standard. ARB cannot substitute laboratory data developed under steady-state operating conditions for in-use data developed over a wide range of operating conditions, which is the only data set that could be used to establish the feasibility of the NTE standard.

2. Letter Dated November 9, 2000. ARB's letter dated November 9, 2000, simply acknowledged receipt of International's Public Records Act Request and indicated that ARB would search for responsive records, but did not provide any substantive information.

3. Letter Dated November 13, 2000. In this letter, ARB identified four documents that were withheld because they purportedly contain confidential business information from companies other than International, and one document that was withheld because it was marked "Deliberative Process." International requested that ARB promptly contact the other manufacturers to determine whether the documents could be released as public records. To date, International has not been informed of all of the manufacturers' responses. Based upon a description of the documents, however, it does not appear that the documents could reasonably be relied upon to contend that the proposed NTE standard is technologically feasible. The documents appear to have been prepared in connection with the federal 2004 and/or 2007 HDE Rulemaking by the companies that agreed in their Consent Decrees to meet the NTE standard in MY 2002,¹³ yet these same companies are finding that the NTE cannot be

These three points are randomly selected from anywhere within the testing zone, thereby making the engine manufacturer liable for the entire zone. The EURO III mystery points thus ensure that engine emissions are not anomalously high in areas within the engine's normal power curve that are not fully evaluated under the EURO III test. As such, the EURO III mystery points ensure the effectiveness of an engine's emission control system within the typical engine operating range.

¹³ The documents were described by ARB as: (1) "6-page slide presentation, dated 14 February 2000, by Detroit Diesel Corporation, entitle [sic] '2004 Rulemaking Discussion,' Marked 'DDC Confidential.'"; (2) "13 page slide presentation, dated October 27, 1999, by Cummins Engine Company, entitled '2.5g/BHP-hr NO_x + HC Standards' (Initial Discussion). Marked 'Cummins Confidential Business Information.'"; (3) "2 page cover sheet with 4 page slide presentation, dated January 31, 2000, from Cummins Engine Company to US EPA, entitled '2.5g/BHP-hr NO_x + HC Standards' (Cummins Response and Analysis). Marked 'Cummins Confidential Business Information.'"; and (4) "1 page cover sheet with 24 page slide presentation, dated January 21, 2000, from Cummins Engine Company to US EPA, entitled '2.5g/BHP-hr NO_x + HC Standards' (Cummins Response to EPA Proposal). Marked 'Cummins Confidential Business Information.'" Cummins Engine Company agreed to allow ARB to disclose certain documents that were provided to International on November 29, 2000. These documents are merely (a) five cover sheets for slide presentations with no slides attached; (b) two e-mails referencing attached files with no files attached; and (c) a chart entitled "EPA Draft AECD Proposal -- Cummins Response and Analysis," which estimates the vehicle miles traveled in urban areas versus altitude. Obviously, the first two categories of documents contain no information whatsoever that can be relied upon to demonstrate the technological feasibility of the proposed NTE requirements. Similarly, the third chart merely depicts the fact that vehicle miles traveled at high altitudes are

satisfied under real world operating conditions.¹⁴ Moreover, ARB cannot rely entirely on "secret" data to support the NTE standard and supplemental test procedure without allowing International and other interested parties to independently examine such data to evaluate and comment on its validity.

4. Letter Dated November 14, 2000. ARB's November 14, 2000 letter provides ten documents purportedly responsive to International's Public Records Act requests. None of the documents sheds any light on the technological feasibility of the NTE standard and supplemental test procedure.

The documents provided are "EMFAC2000" emissions inventory, "EMFAC7G" information, or similar generic inventory emissions estimations. EMFAC2000 and EMFAC7G are models that attempt to estimate the emissions for fleets of on-road motor vehicles in a state or specific counties over a lengthy period of time. They do not predict (much less measure) the in-use emissions for a heavy duty diesel vehicle at any 30-second interval during "any engine operating condition that could reasonably be expected in normal vehicle use," as required by the proposed NTE standard.¹⁵

very low, but says nothing regarding the technological feasibility of ARB's proposed NTE standard and test procedure.

Although ARB claims that the remainder of the information is withheld for confidentiality purposes, it is unclear whether such information is, in fact, confidential. For example, it is not specified how ARB obtained such information. It is unknown whether the EPA provided this information directly to ARB, whether ARB obtained it directly from the manufacturers, or whether such information was presented in public meetings between EPA, ARB and the engine manufacturers, see Control of Emissions of Air Pollution from 2004 and Late Model Year Heavy-Duty Highway Engines and Vehicles: Response to Comments, EPA420-R-00-011 (July 2000), at 8-14, in which case the documents are not confidential or subject to any deliberative process privilege.

¹⁴ See n.2, *supra*.

¹⁵ It is apparent that such calculations are erroneous since the basis for these emission inventory estimates is steady-state data that allegedly purport to show emissions from an engine "in-use" which was provided in secret by an unnamed manufacturer against the standard of the 20 minute average in the transient Federal Test Procedure. Therefore, the emissions inventory and related data provided by ARB are irrelevant and do not suffice to establish that the NTE standard is technologically feasible. Moreover, the inventory estimates themselves likely are wrong. If the NTE was technologically feasible (which it is not), and assuming the use of exotic "titanium alloys" of unknown cost, the limitations on engine operations will actually *increase* emissions. Fundamentally, an engine is used in a truck to carry a load down the highway. To carry this load, the engine must do work. Emissions produced by a heavy-duty engine are directly related to the amount of work the engine does (i.e., grams of NO_x per brake horsepower-hour = grams of emissions per work produced). However, if the engine's work is now used for other actions not related to moving the load down the highway, the actual emissions from the engine will increase. For example, as EPA acknowledges in its 2004 rule, trucks may need larger frontal areas to accommodate larger radiators needed because of increases in engine heat produced in achieving the NTE. See Control of Emissions of Air Pollution from 2004 and Late Model Year Heavy-

5. Letter Dated November 17, 2000. ARB's November 17, 2000 letter provided three documents, two of which were prepared by International itself. The documents provided fail to support ARB's contention that the proposed NTE standard is technologically feasible.

ARB provided an International graph entitled "Compliance Over Wider Range of Engine Operating Conditions" which describes the regions over an engine speed and torque map that encompass the FTP and Euro-III test points along with the NTE region. The chart shows the wide region over which the FTP tests, both in transient and steady-state operations during the 20 minute FTP test. Also included is the wide engine operational area covered by the Euro-III steady-state test. The Euro-III test includes various weighting factors which, taken together over several hours of testing, average the emissions over this wide operating area. However, the NTE area encompasses an even greater area under which an emission level, occurring in-use under conditions that may reasonably be expected to be encountered for 30 seconds, i.e., any engine transient or steady-state engine operation in the NTE area, cannot exceed a certain level. It is precisely this undefined operation, i.e., *anywhere* within the NTE, and the limited sampling for as little as 30 seconds while in a laboratory or in-use that imposes an unreasonable and, given the infinite number of testing possibilities, a technologically infeasible standard.

Another International document, entitled "TPM Emission under Steady State Test Conditions (T444E 7.3V8 Engine, 210HT, 00MY, w/ DOC Catalysts)," clearly shows that the technology relied upon by ARB and the EPA to show the feasibility of the underlying FTP standard in fact will not be capable of ensuring compliance with the NTE. In particular, DOC operational efficiencies, for a wide variety of catalysts, is entirely dependent on engine operations. For example, operation at high speeds and loads significantly reduces the efficiencies of these systems such that at these high speeds and loads, in the NTE region, the particulate matter (PM) NTE would easily be exceeded.

Finally, ARB provides an excerpt from the Federal Register relating to the federal 2004 rulemaking. See 64 Fed. Reg. 58472 (October 29, 1999). The excerpt simply states that: "The NTE test procedure could be run . . . in an emissions laboratory . . . under conditions that may reasonably be expected to be encountered in normal vehicle operation and use, including

Duty Highway Engines and Vehicles: Response to Comments, at 8-49. These larger frontal areas increase drag on the vehicle, requiring more work to move the load down the highway, thereby increasing emissions to the environment. Similarly, the larger radiator and added weight increase the load, requiring even greater work. Alternatively, a larger fan or more fan operation may be used. However, a larger fan or more fan operation requires energy, *i.e.*, work from the engine, which in turn increases emissions.

As another example, depowering an engine (as suggested by ARB Staff) is not an option because, under the conditions that a driver would demand that power, *i.e.*, pulling a load up a hill or passing another vehicle, the truck would lose power and slow down, potentially causing a significant safety hazard on the highway. Additionally, this "depowering" would require greater work from the engine, thereby increasing the emissions again. In sum, there is no technology that is anticipated to be available by MY 2005 that could enable manufacturers to design an engine to the underlying FTP-based standard *and* still meet the NTE limit. If manufacturers are required to design their engines to meet the NTE standard, emissions could actually *increase* due to engine operations limitations.

operation under steady-state or transient conditions and under varying ambient conditions.” 64 Fed. Reg. 58490. This sentence does not cite to any *evidence* that the NTE standard and supplemental test procedure is technologically feasible under in-use operating conditions, including both steady-state and transient operations, and under varying ambient conditions. Moreover, there was no data in the federal rulemaking record to support a finding that such requirements feasibly can be met. As discussed above, the EPA relied on three bases to support a feasibility determination for the NTE requirements, and none of those bases suffices. Indeed, the EPA has admitted it has no actual engine performance data that can be relied upon to demonstrate the technological feasibility of the proposed NTE requirements. See Exhibit 2.

6. Letter Dated November 22, 2000. ARB's November 22, 2000 letter provided three documents. These documents are identical to the ones that were provided by ARB in its November 17, 2000 letter. For the reasons stated in Paragraph 5 above, these documents fail to support ARB's contention that the proposed NTE standard is technologically feasible.

7. Federal Rulemaking Documents E-Mailed November 29, 2000. The documents provided by ARB via e-mail on November 29, 2000 are nothing more than the same federal rulemaking documents relating to the 2004 and 2007 standards that the ARB Staff cites to in the Staff Report.¹⁶ As already shown, ARB's reliance on the federal rulemaking is totally

¹⁶ The documents are (1) EPA's Final Rule; (2) EPA's Response to Comments; (3) EPA's Regulatory Impact Analysis; and (4) the Federal Register Notice. ARB also referred to two EPA documents that it believes are relevant to International's Public Records Act requests, identified as (1) a 10 page memorandum with attachments, dated May 23, 2000, entitled, "Summary of Model Year 1999 and 2000 Federal On-Highway Heavy-duty Diesel Engine families Certified as Compliant with Not-to-Exceed Requirements, Euro-3 Steady State Requirements, and Maximum Allowable Emission Limits Requirements," and (2) a 6-page memorandum, dated July 17, 2000, entitled "Summary of CBI Information regarding proposed HD Supplemental Test Requirements." These documents were subsequently produced by ARB with a letter dated December 1, 2000. These documents do not provide a basis for demonstrating the technological feasibility of the ARB's proposed NTE standard.

With respect to the first memorandum, International has already shown that the fact that certain engines have been allegedly certified to the NTE standard on a 4.0 g/bhp-hr basis does not support any showing of technological feasibility with respect to ARB's proposed NTE. Moreover, EPA has admitted that it *has no data* confirming or measuring the NTE on the approximately 75 HDE families certified in July 2000. In the second memorandum, EPA simply "summarized" purportedly confidential information, but did not release such information. Because the EPA did not place this information in its own rulemaking to allow the public to independently scrutinize the validity and relevance of the data, as it is required to do pursuant to CAA Section 307, 42 U.S.C. § 7607, and 40 CFR Part 2, the ARB's reliance on EPA's documents to support its proposed NTE standard is misplaced. Moreover, the memorandum actually *contradicts* ARB's position that an NTE standard can feasibly be met. EPA summarizes several aspects of its NTE that present challenges for the Consent Decree manufacturers to agree to comply with NTE requirements, including the following: (a) "Difficulty achieving 1.25 x NO_x + NMHC limit near torque peak, particularly with high specific power ratings"; (b) "High speed engines (engines with Euro C speeds >2400 rpm) have difficulty meeting NTE requirements at high speed and high load"; (c) "Engines using some Diesel Oxidation Catalyst (DOC)

misplaced because the EPA has no data to show that the NTE is technologically feasible. Even assuming that the EPA has demonstrated the technological feasibility of its 2007 NTE standard (which it has not), ARB's proposal to adopt NTE standard two years earlier is not technologically feasible.

III. Conclusion

International has a long history of working with the ARB in the field of mobile source emissions regulation. As a signatory to the 1995 Statement of Principles between leading heavy-duty diesel engine manufacturers, ARB and the United States EPA, International devoted enormous resources to develop the technology necessary to meet new emission standards designed to achieve historic emissions reductions from heavy-duty diesel engines -- but in a manner that is feasible for industry. The ARB, in turn, recognized that International's commitment to and investment in the reduced emission standards would require all of the lead time and stability provided under the Statement of Principles. The Staff's proposed amendments represent a drastic and unwarranted departure from the commitments made by ARB in the Statement of Principles. ARB has failed to demonstrate that its proposal to require heavy-duty diesel engines to meet the Not-To-Exceed and Euro III emission standards and test procedures for Model Year 2005 and subsequent model years complies with the Clean Air Act and California law. We are hopeful that International's comments will convince the Board that the proposed amendments are technologically infeasible, and violate the mandatory lead time and stability requirements of the Clean Air Act.

formulations cannot meet the NTE PM requirement"; and (d) Under high load operations at high temperature and high altitude conditions compliance with the NMHC + NO_x 1.25 NTE limit at the 2.5 g/hp-hr standard pushes current turbomachinery beyond its mechanical limits."

STATE OF CALIFORNIA
AIR RESOURCES BOARD

EXHIBITS IN SUPPORT OF
SUPPLEMENTAL COMMENTS OF
INTERNATIONAL TRUCK AND ENGINE CORPORATION

Notice Of Public Hearing To Consider)	Mail Out #00-20 And Subsequent
Amendments To Adopt Not-To-Exceed And)	Notice of Public Hearing
Euro III European Stationary Cycle Emission)	Board Hearing: December 7, 2000
Test Procedures For The 2005 And Subsequent)	
Heavy-Duty Diesel Engines)	

International Truck and Engine Corporation
455 N. Cityfront Plaza Drive
Chicago, IL 60611

December 4, 2000

- Exhibit 1 Letter from Patricia Guerrero of Latham & Watkins to the California Air Resources Board ("ARB") re Consideration of Amendments to Adopt the Not-to-Exceed and Other Supplemental Emission Standards and Test Procedures for the Model Year 2005 and Later Heavy-Duty Engines, dated October 5, 2000.
- Exhibit 2 Letter from the United States Environmental Protection Agency ("EPA") to David Piech of International Truck and Engine Corporation ("International") re Freedom of Information Act Request RIN-03120-00, dated October 31, 2000.
- Exhibit 3 ARB Mail Out #MSC-00-20, dated September 15, 2000.
- Exhibit 4 Letter from Patricia Guerrero of Latham & Watkins to ARB re Public Records Act relating to Consideration of Amendments to Adopt Not-To-Exceed and EURO III European Stationary Cycle Emission Standards and Test Procedures for the 2005 and Subsequent Model Year Heavy-Duty Engines and Vehicles, dated November 6, 2000.



HEAVY DUTY DIESEL EMISSIONS CONTROL PROGRAM

I am pleased to have the opportunity to offer comments on the Heavy Duty Diesel Emissions Control Program. Let me say that the outset that I am basically in favor of the Program. I am, however, concerned about the Pennsylvania Department of Environmental Protection's unusual approach to regulating certain classes of construction equipment. To my knowledge, Pennsylvania is the only state that considers certain types of equipment, used commonly at construction, land clearing, and demolition sites, to be a "stationary source". Some of this equipment has one engine which powers the equipment, and a second engine which functions to chip or grind wood, or to crush or pulverize concrete. Does it make sense to regulate two engines on one piece of equipment differently? At the current time, some of this equipment is permitted, but historically, and up until recently, it was only permitted as a potential particulate^{te} air source.

At the time that Pennsylvania modified its implementation plan, to provide tighter source controls on large engines, to my knowledge, virtually nothing was done to notify this regulated community of the tightened requirements. I have attempted, working with both regional offices and the central office, to clarify what types of construction equipment, powered by diesel engines, does and does not require air permitting, and, what thresholds apply. It is clear that starting at 100 to 200 horse power, individual or portable plant permits are required. If the equipment is to be operated for a long time at a site, it can be considered a "major source" potentially requiring a one year permitting delay.

Even today, ten months after I identified this important issue to DEP, very little has really been done to notify those selling and renting equipment, that they should not use the equipment, without the appropriate air permits. The DEP takes the position, and understandably so, that project bidders should be pre-qualified, and projects held up for 6 to 12 months, while appropriate air emissions permits are obtained. To me, this does not make a lot of sense. In the coming construction season, it can be expected that ongoing major projects in the Philadelphia region will include further Route 202 construction, I-95 reconstruction, the demolition and rubbleization of 14,000 row houses, and a \$425,000,000 project involving demolition and reconstruction of the Market Frankford elevated line. As no other commonly used construction equipment is subject to such individual air permitting, it make little sense as to why such commonly used equipment as tub grinders used to make mulch out of cleared trees, and crushing equipment allowing source separation and maximum recycling of concrete, has to be individually permitted.

In my opinion, both the City of Philadelphia and the Pennsylvania Department of Environmental Protection have a deficient air emissions control implementation plan, because:

- ▶ There has been no adequate notice to the regulated community.
- ▶ There has been no phase in period permitting for the further regulated sources.
- ▶ Manufacturers and construction rental equipment houses are not aware of what equipment can and can not be used in Pennsylvania.
- ▶ DEP needs to establish a basic set of emissions and control equipment criteria, which could easily be established, in a several week period. There are numerous technical solutions to the concern regarding diesel emissions, including use of alternative fuels, use of catalytic converters, and even fuel products called "biodiesel", and other fuel substitutes. Currently, because of the odd regulatory approach and an unclear implementation plan, contractors are less than willing to

RT Environmental Services, Inc.

invest in equipment, which is commonly used throughout the United States, and which will be sorely needed here in the southeast region, by the next construction season.

In summary, I believe that the proposed Heavy Duty Emissions Control Program, has to be applied properly, and appropriately, to all classifications and types of affected equipment. If DEP would promptly establish, within the next 30 days, a clear set of criteria of engine emissions controls are which are not necessary, and for which types and sizes of equipment, the very costly potential for significantly delayed nature public works projects could be avoided, and adequate environmental protection could be achieved. I would recommend that DEP take specific note, that, in Texas, a poorly implemented construction equipment control Implementation Plan, did not lead to any environmental gains and was negated by the courts I would urge DEP to deal with this issue quickly, and effectively, as the category of "not being on our list of exemptions" a fact, often cited by regional and central office air resources staff, is clearly not adequate notice to the regulated community.

To assist you with this effort, I'm pleased to submit with my testimony a diesel emission permitting guide, which was prepared based on discussions with DEP Officials, and contains important information on which types and classifications of construction equipment, used for demolition construction purposes, which require air permits.

It is my hope that DEP will effectively deal with this matter, without further delay, as the regulated community is waiting to by the right equipment to do the job in an environmentally sound manner.

Presented By:
Gary R. Brown, P.E.
President
RT Environmental Services, Inc.
215 West Church Road
King of Prussia, PA 19406
610-768-0232 Ext. 34
gbrown@rtenv.com

RECEIVED
DEP
JAN 11 2007

PERMITTING SUMMARY - DIESEL ENGINES - PENNSYLVANIA

<u>Classification</u>	<u>Permit Type</u>	<u>Estimated Permitting Time</u>
On-Road, All Sizes, with Motor Vehicle Licenses on Equipment	Exempt, Covered Under Federal Regulations; Possible Future State Program	---
Off-Road Engines, where Engine Moves the Equipment, All Sizes	Currently Exempt; May Be Subject to Future Regulatory Changes/Restrictions	---
Off-Road Engines, Mobile or Stationary, Engine Does Not Move the Equipment. (Emergency Generators, Tub Grinders***, Dredging Equipment, Peak Shaving Generators, Bailers, Shredders, Concrete and Stone Crushers***, Other Construction Equipment, Etc.)	<p>A Few Uses Exempted** - See DEP List (Mostly Small Engines Exempted, Example-Landscaping Equipment)</p> <p><u>Submit Request for Determination</u> if infrequently Used- Less than 500 hrs.* and Less than 500 HP</p> <p>>100 hp-Regularly Used; May require Plan Approval. May require add-on control. <u>Submit Plan Approval Application</u></p> <p>500 HP - Likely requires Major source permitting; may require add on Controls ; <u>Submit Plan Approval Application</u></p>	<p>--- (100 Hp Engines)</p> <p>50 days</p> <p>180 days</p> <p>180 days (365 days if major source, a Plan Approval is triggered.)</p>

* This is a 500 Hour Annual Rolling Average

** DEP Exemption List is at http://www.dep.state.pa.us/dep/subject/All_Final_Technical_Guidance/baq/275-2101-003.pdf

*** These also require Waste Management Permits (6 months to 2 years to obtain) If equipment is processing > 50 TPD, offsite from the demolition location.

ADDITIONAL INFORMATION

The Cities of Philadelphia and Pittsburgh operate their own air permitting program. The City of Philadelphia issues temporary permits and has required catalytic converters on construction equipment.

Old diesel engines may be difficult to permit due to lack of electronic ignition systems.

If the engine is subject to Plan Approval requirements, at a minimum the emission rate should be no greater than 6.9 grams/bhp (EPA's non-road standard), provided no add-on control is feasible.

DEP may issue an Air General Permit in the future; it is only expected to cover engines up to 200 HP.



October 31, 2001

Environmental Quality Board
P.O. Box 8477
Harrisburg, PA 17101-2301

Re: Proposed Amendments to 25 Pa. Code Chapters 121 and 126
Heavy Duty Diesel Emissions Control

Dear Sir or Madam:

On behalf of Citizens for Pennsylvania's Future (PennFuture), I am writing in support of the "Heavy Duty Diesel Emission Control Program", proposed on September 1, 2001 (31 Pa.Bull. 4958). PennFuture is a statewide conservation organization that promotes renewable energy and advocates and litigates on behalf of Pennsylvania's air, land, and water.

Heavy duty diesel engines contribute significantly to Pennsylvania's air quality problems. Among the many health and environmental impacts of diesel pollution, emissions of volatile organic compounds and nitrogen oxides (NOx) contribute to dangerous smog and toxic emissions in diesel exhaust are likely human carcinogens.

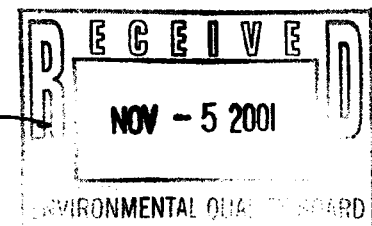
As a result of their past efforts to evade emission control requirements, diesel manufacturers are now under a court order to produce engines using enhanced emission test procedures between 2002 and 2004. New EPA rules will make these enhanced tests permanent in 2007 and beyond. In 2005 and 2006, however, the manufacturers may attempt to backslide to less protective test procedures.

California has taken the lead in filling this gap, issuing rules that require enhanced testing in 2005 and 2006. Now, Pennsylvania has the opportunity to follow California's lead, as it appears many other states are doing, and help create a de facto national standard that would clean up diesel engines in 2005 and 2006. In Pennsylvania alone, enhanced testing would cut pollution by 12.5 tons of NOx on an average summer day, when smog poses the greatest health risk.

PennFuture supports the efforts of the Environmental Quality Board and the Department of Environmental Protection to reduce diesel emissions by requiring the enhanced testing procedures in 2005 and 2006, and supports the proposed rule.

Sincerely,

Charles McPhedran
Senior Attorney



Citizens for Pennsylvania's Future
212 Locust Street - Suite 410
Harrisburg, PA 17101
Tele: 717-214-7920
Fax: 717-214-7927
e-mail: info@pennfuture.org

Citizens for Pennsylvania's Future
117 South 17th Street, Suite 1801
Philadelphia, PA 19103
Tele: 215-569-9691
Fax: 215-569-9637
e-mail: info@pennfuture.org

Citizens for Pennsylvania's Future
P.O. Box 19280
Pittsburgh, PA 15213
Tele: 412-624-9943
Fax: 412-648-2648
e-mail: info@pennfuture.org