

From Clean to Clunker:

The Economics of Emissions Control

Fresh Perspectives from Air Quality
Regulators, Licensed Mechanics,
Port Truck Drivers, and Freight Carriers



SIERRA
CLUB
FOUNDED 1892

laane»
A NEW ECONOMY FOR ALL

BLUEGREEN
ALLIANCE



By Sejal Patel

April 15, 2010

Intentionally left blank.

From Clean to Clunker: The Economics of Emissions Control

Lead Author - Sejal Patel, LAANE

With a Foreword by Dave Foster, BlueGreen Alliance

About LAANE

LAANE is a leading advocacy organization dedicated to building a new economy for all. Combining dynamic research, innovative public policy and the organizing of broad alliances, LAANE promotes a new economic approach based on good jobs, thriving communities and a healthy environment. Since 2006, LAANE has been a proud member of the Southern California arm of the Coalition for Clean & Safe Ports, an unprecedented national alliance of port truck drivers and over 100 environmental, labor, faith-based, community, transportation and public-health organizations working to promote sustainable trade at U.S. seaports.

About BlueGreen Alliance

The BlueGreen Alliance unites over 8.5 million people in pursuit of good jobs, a clean environment and a green economy. Launched in 2006 by the United Steelworkers and the Sierra Club, this unique national collaboration has grown to include the Communications Workers of America, Natural Resources Defense Council, Service Employees International Union, Laborers' International Union of North America, Utility Workers Union of America, American Federation of Teachers, Amalgamated Transit Union, and Sheet Metal Workers' International Association.

About Sierra Club

Since 1892, the Sierra Club has been working to protect communities, wild places, and the planet itself. Representing 1.3 million members, it is the oldest, largest, and most influential grassroots environmental organization. The Sierra Club is a leading partner in the Coalition for Clean & Safe Ports. In 2008, the coalition played a pivotal role in the passage and enactment of the Port of Los Angeles' award-winning Clean Truck Program. The Sierra Club is fighting to protect this sweeping green-growth model so it can be replicated at ports nationwide.

About the Teamsters

Founded in 1903, the International Brotherhood of Teamsters represents 1.4 million hardworking men and women in the United States, Canada and Puerto Rico. The Teamsters, the nation's largest union of transportation workers, joined forces with environmental and community allies on both coasts to make America's trade hubs a less polluting, more competitive generator of good quality jobs. Its Port Division is committed to restoring middle-class wages in harbor trucking.

Continued on next page

Author Acknowledgements

I had the pleasure to work with many cogent collaborators in the creation of this report. Member organizations of the Coalition for Clean & Safe Ports, including the Natural Resources Defense Council and Communities for Clean Ports provided research and review assistance. Thanks go to David Foster of the BlueGreen Alliance and Margaret Levins of the Sierra Club for their vital contributions to the project.

I relied heavily on former port drayage industry studies by Kristen Monaco of California State University, Long Beach, Department of Economics, Dr. David Bensman of Rutgers University, and the Gateway Cities Council of Governments, as well as the U.S. Environmental Protection Agency 2009 study on truck engine emissions. Many thanks to Martin Gunn and Randy Opfer of the California Air Resources Board's Air Pollution Specialists department, Danny Walker and Daisy Montoro of TEC Equipment, Inc and Alex Rascon of Inland Kenworth, Inc. for their time and technical expertise on clean-engine components.

Since July 2009, more than two dozen port drivers have shared extensive information on their industry and working conditions. Their time and proficiency were invaluable to this research.

Special appreciation goes to the Teamsters' Port Division organizers in Southern California for the experience and knowledge these individuals bring as former port drivers. A great deal of gratitude goes to Change to Win's TJ Michels, Nick Weiner, John Canham-Clyne, and Coral Lopez for their review, and Barbara Maynard of Maynard Consulting Services, for production and design.

Support from the Public Welfare Foundation, The California Endowment, The William and Flora Hewlett Foundation, The Kresge Foundation, The Ottinger Foundation, Panta Rhea Foundation, and The Nathan Cummings Foundation have helped make this research possible.

And finally, "From Clean to Clunker: The Economics of Emissions Control" would not have been realized without Jon Zerolnick, Sr. Research Analyst of LAANE. Thank you for your ever-astute insight and support from concept to completion.

– Sejal Patel, LAANE

Media Inquiries

Media inquiries should be directed to Erica Zeitlin at (213) 387-0780 or erica@mcsonline.org.

TABLE OF CONTENTS

Foreword	4
Summary of Key Findings	5
Background	6
From Clean Trucks to Clunker: The Economics of Emissions Control	
ATA Blocks Full Implementation of EPA Award-Winning Program	8
True Cost of Maintaining a Clean Truck	9
Dire Environmental Consequences Forecast	11
Leases Do Not Cover Most Routine Maintenance	13
Summary	13
Endnotes	14

FOREWORD

By upgrading operational standards in the trucking industry, the Port of Los Angeles implemented a Clean Truck Program that resulted in a stunning initial drop in diesel emissions, plus removed polluting vehicles on Southern California roads for future generations. The Port determined that a system that first incentivized and then rewarded private investments in clean fleets was the best approach, rather than continually pumping large public subsidies into a market in which low-wage contract drivers are personally responsible for maintaining emissions-compliant equipment.

Economists and environmentalists agreed, and endorsed this initiative, which won the U.S. Environmental Protection Agency’s Environmental Justice Achievement Award in 2009. However, the American Trucking Association obtained a court injunction that instantly dismantled this strategy a year ago and foisted costs for clean truck leases, operations and maintenance onto a largely immigrant, subcontracted workforce. Thousands of L.A. and Long Beach port drivers quickly saw their already low wages plunge. Many report delaying relatively inexpensive but necessary routine maintenance on the new fleet of over 6,000 heavy-duty trucks, while more costly repairs to clean technology engines and pollution-control equipment loom on the horizon.

“From Clean to Clunker: The Economics of Emissions Control,” for the first time compiles detailed data from port drivers, mechanics, air regulators and freight carriers on the financial cost and responsibility required to properly maintain a new clean diesel port truck. This knowledge is critical for U.S. seaports across the country that seek to develop and implement their own clean truck programs and confront similar pollution, public safety and economic challenges created by an antiquated port trucking industry.

The new research removes any doubt the Port of Los Angeles was correct to adopt a bold Clean Truck Program model, and demonstrates that anything short of a port trucking market that economists refer to as “asset-based” – meaning trucking companies are rightfully in charge of owning, operating and maintaining their own fleets – will result in a bankrupted workforce and a clean-air Catch 22. Small wonder more than 100 environmental, labor and community organizations nationwide have joined several big-city mayors by calling for a simple update to federal law to make it clear that local governments have the regulatory authority to enact proven, ready-made solutions which improve public health and foster economic growth.

And what if a deep-pocketed shipping and trucking industry is permitted to exploit arcane statutes of the 30-year-old federal motor carrier act? Thousands of truck drivers now sentenced to low-wage jobs will be forced to buy expensive trucks they cannot afford nor maintain or face unemployment, 87 million Americans who live near ports will continue to breathe toxic smog, and job-creating infrastructure programs will be frozen.

Lungs and livelihoods hang in the balance. It is incumbent upon Congress to act.

Dave Foster

Executive Director
BlueGreen Alliance

SUMMARY OF KEY FINDINGS

This report reveals the cost of proper truck maintenance, the economic inability of drivers to meet this challenge, and the profound environmental threat both pose to upholding the success of the U.S. EPA award-winning Los Angeles Clean Truck Program.

- Approximately one year ago, the American Trucking Associations (ATA), which represents less than five percent of Southern California port trucking companies, was granted a temporary court order that left the financial obligation for operating and maintaining EPA-compliant port trucks on the backs of contracted drivers.
- New evidence reveals the combined costs for clean truck leases and vehicle maintenance are financially out of reach for individual port truck drivers. This economic reality undermines the heart of the environmental policy that requires licensed trucking companies to properly maintain the EPA-compliant fleets purchased with large public subsidies.
- Several academic and governmental studies in the last five years show port drivers at the Ports of Los Angeles and Long Beach earn approximately \$10-11/hour. The most recent report, a study published in 2009 by a leading independent think tank and authored by a Rutgers University professor, found that nationally, port drivers earn \$28,000 a year.
- The cost of maintaining a clean truck in its first 12 months of service is \$2,200 and rapidly accelerates to \$60,000 over the typical seven-year life of a lease. First-year costs are characterized as routine maintenance such as oil changes, treating filters, truck valve adjustments, etc.
- Between typical wear-and-tear repairs and routine maintenance on a new low-emissions truck, the cost exceeds \$8,500 annually. This financial obligation is 70 percent more than what a typical port truck driver paid each year to keep his or her old diesel truck operating, severely reducing the driver's meager take home pay.
- Prior to the adoption of the Port's Clean Truck Program, low-paid contract drivers, often referred to as "owner-operators," were economically forced to take shortcuts or rely on "curbside fix-it men" for vehicle repair on their high-mileage, polluting rigs. Drivers are now contractually required to take 2007 U.S. EPA-compliant trucks to California state-approved licensed mechanics for all maintenance and repairs.
- Improper maintenance of a 2007 to 2010 EPA-compliant engine can significantly reduce its environmental benefit. According to a 2009 EPA study, emissions of toxic fumes that can lead to asthma and increased cancer risk can increase by as much as 80 percent (PM2.5 emissions can increase by 50 percent and emissions of NOx can increase up to 80 percent).
- Because of the ATA's temporary court order blocking implementation of a key provision of the Port of Los Angeles' Clean Truck Program – specifically, the provision that would transfer responsibility of owning and maintaining the trucks to well-capitalized trucking companies – independent contract drivers are saddled with greater financial responsibility. However, the amount that they are paid per load has not increased to cover their contractual leases and maintenance obligations. In fact, the current economic recession has weakened container volumes at the Ports of Los Angeles and Long Beach, leaving drivers with less cargo to haul.

BACKGROUND

In May 2008, the American Lung Association ranked Los Angeles as the second most polluted region in the U.S.¹ Diesel port trucks, which are a critical component of one of the region's largest economic engines, are a significant contributor to dismal air quality. Port workers and residents in surrounding communities suffer disproportionately high incidences of respiratory disease, asthma, cancer, and other illnesses.

After earning the support of local, state, and national environmental groups – and the endorsement of several notable economists – the Port of Los Angeles enacted its comprehensive Clean Truck Program in October 2008 to counter the grave consequences of toxic emissions. The program sought to achieve two major policy goals:

“Effective controls go to the heart of the program’s success. For example, proper truck maintenance is essential to achieve our air quality goals. It is well known that pollution controls on trucks deteriorate over time if they are not properly maintained. A new ‘clean’ truck will become ‘dirty’ fairly soon without periodic, expensive maintenance.”

~ Port of Los Angeles Board of Harbor Commissioners Statement, adopted March 20, 2008.

- **Rapid Replacement of Dirty Trucks:** By combining a progressive ban on older trucks with generous subsidies to businesses that purchased new, cleaner trucks, the Port sought to reduce diesel truck emissions by 80 percent over five years.
- **Rely on Market-Based Solutions to Sustain Emissions Reductions:** By requiring trucking firms to directly own and operate the new clean vehicles instead of subcontracting to individual haulers, the Port set conditions for business efficiency gains to ensure the cost of proper truck maintenance would be borne by capitalized companies, not low wage independent contractors.

SHARECROPPERS ON WHEELS

Prior to the Clean Truck Program, most drivers owned their own rigs and had no truck payments.² The new leases add monthly costs of as much as \$2,150, without giving the driver the ability to seek work from multiple companies, as true independent contractors would.

A 2008 front-page *Los Angeles Times* article detailed how drivers, prior to the Los Angeles program, relied on “a shadowy economy of... discount mechanics, body workers, welders and junkyards” to hold down maintenance costs.³

This option is no longer available given newer truck technologies that require more professional mechanics. In other words, just as driver income is decreasing, driver expenses – including the cost of the maintenance that is so essential to Clean Truck Program success – are increasing.

The Port accomplished its first goal ahead of schedule, with public health advocates celebrating accelerated progress towards the desired 80 percent emissions reduction. But this initial success – and the Port’s promise of continued clean air – is now in jeopardy because the American Trucking Associations (ATA) was granted a temporary court order that left the financial obligation for owning, operating, and maintaining EPA-compliant port trucks on the backs of individual drivers.

“We just can’t afford these trucks. I was taking home checks for only \$180 every week, how was I supposed to pay \$460 for the oil change? I had to borrow money from the company. The company then took \$50 out of every check until I paid it off, and then charged me interest on the loan! It’s just not fair.”

~ Leonel, former driver for Total Transportation Services, Inc.

To sustain reductions, the new fleet must be properly maintained by licensed mechanics. Under the outmoded harbor trucking “owner-operator” business model, the responsibility for all operational costs rests on contract drivers who operate on razor-thin profit margins. Since these individuals lack stability and resources, the Port awarded its subsidies and financial incentives only to trucking companies equipped to maintain a clean fleet over the long term.

SAFETY AND MAINTENANCE

Proper maintenance not only ensures the benefits of long-term clean air, but also decreases risks to motorists.

“Independent truckers...are paid by the load as opposed to hourly, which incentivizes them to speed (in order to increase their trip frequency) and postpone truck maintenance (which leads to unsafe trucks)...Independent truckers must also bear the responsibility of maintaining their trucks; however, on insufficient salaries they simply cannot afford to maintain them properly. Without an employer, independent truckers’ health and safety remain unregulated and necessary repairs remain unattended.”

~Christina Kaoh (Harvard Kennedy School of Public Health) and Natalie Price (UCLA School of Public Health), “Occupational Hazards and Mechanisms of Port Truckers in Southern California,” August 2009.

“Profit margins for the independent operators who serve the Long Beach and Los Angeles ports are thin – so some, like Miguel, cut corners whenever possible. For example, because a gauge showed that the weight of his load exceeded regulations – and because he views his truck’s brakes as untrustworthy – Miguel used the trailer’s brakes to stop the entire rig. The CHP considers that maneuver particularly dangerous – and illegal.”

~Los Angeles Times, “Unsafe trucks stream out of L.A.’s ports,” January 21, 2008.

“Trucking – the backbone of our freight industry – is in crisis mode. We got into this horrible situation by only paying attention to things like volume of trade and inefficiency of movement. But there is also a human element, real people who don’t have enough money to fix their trucks and comply with basic safety regulations, let alone put food on the table.”

~Los Angeles City Councilwoman Janice Hahn. Hahn’s district includes the Port and the port-adjacent communities of San Pedro and Wilmington.

FROM CLEAN TO CLUNKER: THE ECONOMICS OF EMISSIONS CONTROL

ATA Blocks Full Implementation of EPA Award-Winning Program

In July 2008, the American Trucking Associations, the Virginia-based special interest that represents less than five percent of Southern California port trucking companies,⁴ brought suit against the Port's green-growth plan. Specifically, the ATA insisted that responsibility for truck operation and maintenance should lie not with trucking companies, but rather with the independent drivers behind the wheel, who studies show average just \$10-\$11 an hour.⁵

As soon as the ATA obtained an injunction, local trucking companies adopted tactics that have made the plight of these workers – and their

“They [the drivers] are taken advantage of by everyone they come in contact with, including the companies they work for, and it’s all in the quest of lowering costs and increasing profits. If you want good clean and safe equipment, the costs for it have to be reflected in the rates that truckers receive for moving the products.”

~Todd Spencer, Executive Vice President, Owner-Operator Independent Drivers Association.

ability to pay for required maintenance – more dire. In order to remain hauling at the ports, thousands of now truck-less drivers were compelled to sign new leases for their company's clean trucks. These drivers are still mislabeled as “independent contractors,” typically receive 1099s rather than W-2s, and have little control over how and when they work.

The economic effects of this misclassification scheme are already visible as drivers' low incomes further deteriorate under the weight of large lease payments. The following table, based on information from leases and drivers of leading freight carriers in Southern California, describes monthly cost ranges that drivers are now personally responsible for *before* maintenance is factored in:

DRIVERS' TRUCK OPERATIONS EXPENSE	RANGE OF COST PER MONTH	RANGE OF COST MIDPOINT
Truck lease payments	\$757 - \$2,150	\$1,453
Fees, registration & plates, taxes, inspections, misc. charges ⁶	\$43 - \$198	\$121
Insurance* ⁷	\$258 - \$989	\$624
Fuel	\$860 - \$2,580	\$1,720
Approximate total monthly costs for drivers (excluding maintenance)	\$1,918 – \$5,917	\$3,918

**Drivers are required to carry cargo, liability, and physical damage insurance.*

The cost-shifting from companies to drivers is also having a detrimental impact on the new fleet of over 6,000 clean vehicles now operating at the Ports of Los Angeles and Long Beach, as many drivers forced to pay for the clean trucks admit delaying necessary repairs and/or routine maintenance. The reason for this is simple economics: according to an academic study prior to the Clean Truck Program, half of all drivers paid \$5,000 or less in

annual truck maintenance.⁸ As this report will demonstrate, proper maintenance of a new clean truck averages 70 percent higher, or over \$8,500 annually. More seriously, these costs are “back-loaded,” increasing as the truck ages beyond the first year.

New perspectives from air regulators, licensed mechanics, motor carriers, and the drivers themselves show that the dramatic pollution reductions achieved by Southern California’s clean fleet are clearly at risk unless the Port’s authority to enforce the full Clean Truck Program is restored.

The True Cost of Maintaining a Clean Truck

In an education workshop after new state air regulations took effect this year, an official with the California Air Resources Board (CARB) warned a group of drivers of the severe environmental consequences of improper maintenance of clean-technology equipment: “If a driver does not maintain and clean the [diesel particulate filter] correctly, the engine will die. It is not a clean truck if the filter is not working.”⁹ The compliance officer elaborated that the consequence of the engine filter failure will undoubtedly increase maintenance costs on the driver in the long run. An increase in already high maintenance costs is detrimental to drivers earning \$10-11 per hour.

In June 2009, the clutch on Luis’ leased 2009 Freightliner failed. His odometer only read 9,667 miles. The company wouldn’t pay for the \$3,500 repair and it wasn’t covered by warranty.

“The companies are forcing us to pay for these trucks and it’s destroying our lives. The clutch went out just a month after the company forced me to sign the lease. I was told I had to come up with the \$3,500 to repair it. I was already working about 70 hours a week just to pay for the truck and taking home checks ranging from \$50 - \$400. I couldn’t afford it so I returned the truck to the company and now they are suing me and about six other guys who also returned the truck because we can’t pay.”

~ Luis, Port Truck Driver.

LOS ANGELES FREIGHTLINER		REPAIR ORDER	
2426 S PECK, WHITTIER, CA 92601 RMTY TO: PO BOX 65218 LOS ANGELES, CA 90088-0818		REPRINT CUSTOMER INVOICE	
Luis		06-12-09	
CUSTOMER NAME	NUMBER 17800	REPAIR ORDER NUMBER	***
CONTACTOR FREIGHT / SIT, LLC	PHONE 562 220-2433	>>> 0310218 <<<<	
ATTN: MICHAEL PUCIATA	F.O. NO. PAT MCGURK	DATE 05-20-09 13:18	
6150 PARAMOUNT BLVD	COMPLETE 06-11-09	SVC WTR	PM *FM
LONG BEACH, CA 90405			
SERIAL NO. 1P0JACR49DAN5797	UNIT NO. AN5797	MILEAGE	9667
YEAR/NAME/MODEL - 2009 FREIGHTLINER CL 120		LICENSER	9H36910
ENGINE/MODEL/SERL. 5605 06R1012904		CPL/ARRG	
TRMS/MODEL/SERL - FRO16210C P0331763		R RATED	3.73
EXLS/MODEL/SERL - ART4004 771AAC-A061847H ART400-4 771AAC120 8		DEL MILE	817
SMLE DLR	DEL DATE NIS		
NRND	INSERV 3/11/09 BASIC VEHICLE 12/10000		
	ENGINE STAND WARRANTY 24/UNLIMITED		
<p>1 C/A UNIT NOT TAKING IN ANY GEAR. ONLY TAKING REVERSE. TOWED IN. FOUND LUBE/OILLINE TO BEARING HEATED. REMOVED DUST COVER. INSPECTED BEARING. LOOKS NORMAL. OPERATED CLUTCH PEDAL. VISUALLY CHECKED MOVEMENT. BEARING MOVES 3/4 OF 1 INCH. REMOVED ALL ACCESSORIES AROUND TRANS. DRAINED OIL, BROUGHT TRANS DOWN. INSPECTED CLUTCH AND FLYWHEEL ASBY. EXTREME HEAT BUILT UP. BEUTNS OF ALL STEEL PARTS. FLYWHEEL BEING COMPLETELY THRU, FRONT TO BACK. NO PHYSICAL/MECHANICAL FAILURE OF COMPONENTS EXCEPT EXTREME HEAT. UNIT SHOWED SIGNS OF ONLY INITIAL CLUTCH ADV. ACCORDION TO MEMORY MARKS ON PRESS PLATE. (HEAT BUILT UP DUE TO RIDING CLUTCH ON HILLS OR INCLINES). INSTALLED NEW FLYWHEEL WITH PILOT BEARING. INSTALLED CLUTCH LEVER, SHIFT TOWER, TRANS COOLER LINES AND ALL ELECTRICAL CONNECTORS. INSTALLED NEW U-JOINT ON DRIVELINE AND INSTALLED DRIVELINE. FILLED TRANS WITH DRAINED TRANS OIL. ROAD TESTED. ALL O.K. DONE.</p>			
		TOTAL LABOR	1048.00
		TOTAL PARTS	2424.12
		TOTAL FREIGHT OUT	25.00
4	22-12891-175	SCREW, SC	5.88
	NEED OLD BOLTS...JULIAN	HUB CAP A	69.86
1	A3262215	SPAKE DIS	19.97
	REC'D OLD PART...100700-UP...NT	BALL BRKR	9.06
1	SP-127760	GASKET	4.15
1	5BN-306822NTH	CLUTCH AR	922.09
1	FUL-4305294	Fly Wheel	1393.13
1	SP-126925-80	FREIGHT	25.00
1	DBE-1351417		
1	FREIGHT OUT		
FRY		SHOP SUPPLERS-TIER 2/3	125.48

A reputable Southern California dealer that services port drayage vehicles agreed. According to this local Kenworth service advisor, the cost to maintain a clean diesel truck is significantly higher than a non-EPA-compliant truck, due to the added cost to maintain the new technology elements, such as the diesel particulate filter.¹⁰

Industry fleet executives, speaking at the 2008 American Trucking Associations' Technology and Maintenance Council, corroborated these estimates. Schneider National's Steven Duley calculated that clean technology engines cost "about 28.2 percent higher" to maintain than pre-2002 engines and that Schneider's 2007 model-year trucks visit the shop four to six times more than older models.¹¹

If additional driver expenses were matched by higher driver pay, the cost burden might be relieved. However, according to the top trade magazine, the *Journal of Commerce*, "[h]arbor trucking rates have fallen because of the weak economy."¹² Lower rates leave drivers with less take-home pay, especially when the cost of clean truck maintenance and monthly lease payments are added to a laundry list of normal operational fees including fuel, insurance, registration, license, road tax, parking, and inspections.

A low-wage port driver faced with a new truck lease plus thousands of dollars per year in additional operation costs can often face disastrous bread-and-butter decisions such as "Medicine or maintenance?" "Food or fuel?" "Inhaler or insurance?"

Port drivers confirm that the economic strain forces them to skimp on proper maintenance. As a 20-year hauler from trucking firm Southern Counties Express put it: "Look, if I am barely making enough money to keep food in my refrigerator, you think I'm going to spend the little I have on the truck? As long as those trucks are moving we can ignore engine lights, smoke coming out, and any weird noises they start making. The only thing we can't ignore is our family asking us for food."¹³

Port drivers also complain that as with any limited manufacturer's warranty, only basic defects are covered until the expiration term, not costly wear and tear or routine maintenance. But even then, some items may be unilaterally excluded from the manufacturer's warranty (see Repair Order on Page 9).

LEASE LANGUAGE

Excerpts from company leases are explicit that drivers must pay for expensive clean trucks maintenance:

Lessee will, at Lessee's sole expense, keep and maintain the [truck] clean and in good working order and repair during the Lease Term. – Konoike Pacific California, Inc., Operating Lease Agreement.

Lessee is obligated to maintain the Vehicle at its own expense according to the Vehicle manufacturer's recommended schedule using authorized maintenance service providers. – Southern Counties Express, Inc., Commercial LNG Vehicle Lease Agreement.

Contractor, at its sole cost and expense, shall maintain the Equipment in safe condition and in complete compliance with all laws and regulations of the states in which contractor operates and the DOT. – California Multimodal, LLC, Master Lease Agreement.

All costs of operating, repairing and maintaining the Equipment shall be the sole responsibility of the Contractor. – Swift Transportation Corporation, Inc. Equipment Lease Agreement.

Dire Environmental Consequences Forecast

These economic realities portend serious environmental consequences. An EPA study linking high emissions rates with improper engine maintenance concludes that improper maintenance “will significantly increase emissions over time.”¹⁴

The table to the right describes the EPA’s findings of increases in emission levels if maintenance is not performed by trained and approved mechanics.¹⁵

ENGINE MODEL YEAR	INCREASE	
	NOx	PM
2007-2009	11%	50%
2010	80%	50%

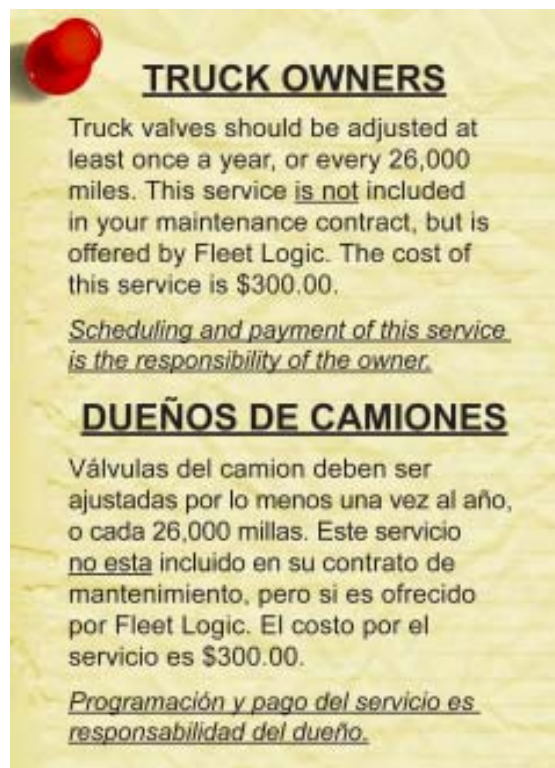
Clean trucks require 30 distinct procedures for maintenance success. The expense of performing these requirements costs roughly \$8,500 per year, as the data below will show, and trucking company contracts place this responsibility on low-income drivers. As a typical lease agreement states, “Driver will, at driver’s sole expense, keep and maintain the truck clean and in good working order and repair during the Lease Term.”¹⁶ (See also Lease Language sidebar on Page 10.)

The authors, with assistance from port drivers and truck manufacturer service agents, developed an inventory of 30 common maintenance requirements on any given clean truck. Interviews were done with three of the leading licensed mechanics in the Southern California region to obtain price estimates and frequency of each maintenance requirement. Based on this information, we have calculated the total annualized cost to properly maintain a clean truck over a seven-year period of time (the general term of a lease contract).

As shown in the table on Page 12, in the first year, drivers will pay approximately \$2,200 for the initial cost of maintenance. From there, the ongoing costs skyrocket, accelerating to approximately \$60,000 out-of-pocket over a seven-year-period. This is equivalent to an annualized cost of over \$8,500 – or \$165 per week. Again, these costs are on top of the lease payment itself, fuel, and other associated costs.

Furthermore, as the new technology is tested and seasoned on Southern California roadways, additional maintenance services may be required. For instance, a flier (shown at right) recently posted in the office of a major leading trucking company explains that drivers are required to arrange for yet another maintenance procedure: truck valves adjustment service.¹⁷

Many drivers were compelled by their trucking company clients to sign their leases in the Spring of 2009, after the injunction voided the Clean Truck Program’s requirement that would have halted subcontracting. These drivers are now nearing the end of the first year of their leases and face a rapid escalation in maintenance and repair costs in the coming year.



MAINTENANCE	AVERAGE COST				
	PER SERVICE*	FREQUENCY PER YEAR**	YEAR ONE	AVERAGE ANNUALIZED	OVER 7 YEARS
<u>PREVENTATIVE MAINTENANCE</u>					
Oil, lube, filters and fluids	\$361	2.9	\$722	\$1,047	\$7,328
Water filter	\$79	2.0	\$158	\$158	\$1,106
Air Filter	\$73	1.5	\$73	\$110	\$767
Transmission Oil Service	\$172	0.8	\$0	\$138	\$963
Differential oil service	\$112	0.7	\$0	\$78	\$549
Truck valve adjustment	\$333	1.5	\$333	\$500	\$3,497
Truck wash	\$33	12	\$396	\$396	\$2,772
BIT inspection	\$43	4.0	\$172	\$172	\$1,204
Subtotal Preventative Maintenance:			\$1,854	\$2,598	\$18,185
<u>WEAR AND TEAR</u>					
Brake Shoe Kits	\$1,901	0.4	\$0	\$760	\$5,323
Brake Drums (6)	\$1,204	0.4	\$0	\$482	\$3,371
Lights	\$103	1.0	\$103	\$103	\$721
Belts	\$209	0.16	\$0	\$33	\$234
Batteries (4)	\$477	0.3	\$0	\$143	\$1,002
Airline hoses	\$117	0.4	\$0	\$47	\$328
Electrical cords	\$170	0.4	\$0	\$68	\$476
Clutch	\$2,133	0.4	\$0	\$853	\$5,972
Oil leaks	\$743	0.6	\$0	\$446	\$3,121
Seals	\$965	0.3	\$0	\$290	\$2,027
Tire rotation	\$183	1.7	\$183	\$311	\$2,178
Electrical fuses	\$30	1.0	\$30	\$30	\$210
Computer sensors	\$1,000	0.14	\$0	\$140	\$980
Shocks	\$985	0.4	\$0	\$394	\$2,758
Fifth wheel service	\$186	0.45	\$0	\$84	\$586
Air bags (6)	\$1,014	0.14	\$0	\$142	\$994
Fire extinguishers	\$56	1.0	\$56	\$56	\$392
Replace tires	\$9,000	0.14	\$0	\$1,260	\$8,820
Coolant filter	\$18	0.67	\$0	\$12	\$84
Clean Diesel Particulate Filter	\$300	0.2	\$0	\$60	\$420
DPFS Spark Plug	\$48	0.36	\$0	\$17	\$121
DPFS Flush	\$1,000	0.2	\$0	\$200	\$1,400
Subtotal Wear & Tear:			\$372	\$5,931	\$41,517
Average Cost in Year 1			\$2,226		
<u>TOTAL COST TO MAINTAIN A CLEAN TRUCK</u>					
Over 7 Years					\$59,702
Average per Year					\$8,529
Average per Month					\$711
*Cost includes parts + labor.					
**Frequency of service is measured in times-per-year and is based on an average of 54,000 miles driven per year. ¹⁸					

Leases Do Not Cover Most Routine Maintenance

Some Clean Truck Program press reports have stated that routine maintenance is covered in the truck lease costs. While the Port of Long Beach's Clean Truck Program does provide a limited, partially-subsidized pre-paid maintenance plan, of the more than 6,000¹⁹ clean trucks deployed at the Ports of Los Angeles and Long Beach since October 2008, only 250 new trucks fall into this category.²⁰

Further, the plan only covers a narrow set of maintenance services, and has no provisions for normal wear and tear, which accounts for more than two-thirds of total annualized costs.²¹ In other words, the option only applies to approximately four to five percent of clean trucks, and covers a fraction of drivers' maintenance and repair costs.

SUMMARY

In conclusion, the data above underscore the need for proper maintenance to sustain clean air and healthy communities. Under the current economic scheme directly resulting from the ATA injunction, low-income drivers are in the position of bearing the financial burden of sustaining clean air and healthy communities.

The economic reality is that most drivers cannot afford to properly maintain their new EPA-compliant trucks. If the American Trucking Associations continue to hold progress hostage, then the remarkable early environmental success of the Los Angeles Clean Truck Program will be painfully short-lived.

ENDNOTES

- 1 Based on a measure of PM 2.5. American Lung Association, “State of the Air” report, May 2008.
- 2 Monaco, Kristen, “Incentivizing Truck Retrofitting in Port Drayage: A Study of Drivers at the Ports of Los Angeles and Long Beach,” California State University Long Beach, Department of Economics, January 2007. “A Survey of Drayage Drivers Serving the San Pedro Bay Ports,” Gateway Cities Council of Governments, March 26, 2007.
- 3 *Los Angeles Times*, “Unsafe trucks stream out of L.A.’s ports,” January 21, 2008.
- 4 Curtis Whalen, Executive Director, Intermodal Motor Carriers Conference of the American Trucking Associations, personal communication with Ricardo Hidalgo, IBT, March 1, 2010.
- 5 Monaco, Kristen, “Incentivizing Truck Retrofitting in Port Drayage: A Study of Drivers at the Ports of Los Angeles and Long Beach,” California State University Long Beach, Department of Economics, January 2007. Monaco, Kristen and Grobar, Lisa, “Study of Drayage at the Ports of Los Angeles and Long Beach,” CSU Long Beach University, Long Beach, Department of Economics, 2004. “A Survey of Drayage Drivers Serving the San Pedro Bay Ports,” Gateway Cities Council of Governments, March 26, 2007. Bensman, David, Rutgers University, “Port Trucking Down the Low Road: A Sad Story of Deregulation,” Demos Report, 2009. “Taking the Low Road: How Independent Contracting at the Port of Oakland Endangers Public Health, Truck Drivers and Economic Growth,” East Bay Alliance for a Sustainable Economy, September 2007.
- 6 Some trucking firms may deduct additional miscellaneous charges from driver paychecks, such as parking, truck wash, administrative/processing fees, and communications equipment (Qualcomm, cell phone, etc.).
- 7 In addition, glass, occupation accident, and bobtail insurance may also be required by the company, which add an additional range of \$3-\$29 per week. These additional costs are not reflected in the table on Page 8.
- 8 Monaco, 2007.
- 9 Martin E. Gunn, Air Pollution Specialist, CARB, Truck and Bus Regulation training session, January 22, 2010.
- 10 Alex Rascon, Service Advisor, Inland Kenworth of Fontana, CA. Personal communication with Sejal Patel, LAANE Research Analyst, November 12, 2009.
- 11 *Transport Topics*, “Maintenance execs say costs, DPF service are top ‘07 issues.” February 11, 2008.
- 12 *Journal of Commerce* cover story, “Ports Plead with Railroads,” August 2009.
- 13 Southern Counties Express driver who wishes to remain anonymous, personal communication with Coral Lopez, April 2010.
- 14 EPA, “Development of Emission Rates for Heavy-Duty Vehicle in the Motor Vehicle Emissions Simulator.” August 2009.
- 15 EPA, 2009.
- 16 Konoike Pacific California, Inc., Operating Lease Agreement, dated July 16, 2009.
- 17 Flier from Container Freight, part of the California Cartage Company family of port trucking companies.
- 18 Combined average miles of Gateway Cities Council of Governments, 2007, and Monaco, 2007, studies.
- 19 Presentation to the Board of Harbor Commissioners, Clean Truck Program Update, by Dr. Robert Kanter, Managing Director, Environmental Affairs and Planning, Port of Long Beach, December 21, 2009.
- 20 *Long Beach Press Telegram*, “Port to delay Jan. 1 ban of pre-’94 diesels,” December 21, 2009.
- 21 Items covered by Port of Long Beach maintenance plan provided by Stacey Rebaza, executive assistant to the deputy executive director of the Port, personal communication via e-mail, August 8, 2008.