

Testimony of Dr. John G. Miller, M.D., FACEP

**In Support of S.1499 - *Marine Vessel Emissions Reduction Act of 2007*
Presented to the Senate Environment and Public Works Committee
February 14, 2008 - Washington D.C.**

Good Morning. I am Dr John G. Miller, an Emergency Physician. I live in the Southern California Diesel Death Zone in the "Port Town" of San Pedro. I have practiced in various Emergency Departments in the South Coast Air Basin for more than 30 years. I am certified by the American Board of Emergency Medicine and I am a Lifetime Fellow of the American College of Emergency Physicians. I was originally trained in Radiation Oncology at USC Medical Center. Medical School-Baylor College of Medicine, Houston TX, Professional Societies: Society of Orange County Emergency Physicians, Society for Scientific Exploration, Board of Directors: Coalition for a Safe Environment, Wilmington, CA. I was the only medical doctor on Mayor Hahn's *No Net Increase Task Force*.

Thank you for this opportunity to testify.

HEALTH. I am speaking in support of this bill. I will give a clinician's perspective on why it should be enacted. The bill addresses the ship pollution problem in a way that is workable and provides a level playing field for all American ports and shippers.

The bill addresses a serious problem we have in Southern California. The twin ports (LA and Long Beach) have been identified as the single largest unregulated source of air pollution in the South Coast Air Basin. Port related activity (ships, trucks, trains and cargo handling equipment) contributes a total of roughly 25% of the mass of air pollutants in the South Coast Air Basin. Angelenos breathe the most unhealthy air in America. In a study done by the Port of Los Angeles, ship operations were shown to contribute 55% of port related air pollution. Thus ships are the largest source of port related air pollution. (From: Port Wide Baseline Air Emissions Inventory, Final Draft, page 26, June 2004, Port of Los Angeles, Starcrest Consulting Group)

Large foreign owned or flagged ships have had a free ride. They are allowed to use our air as their toxic dumping site. Yet local land based businesses have been heavily regulated to prevent this. International standards for pollution from ship engines, written mostly by the shipping industry, are so lax as to be meaningless.

This is the "Diesel Death Zone". (See Attachment A) As demonstrated in the MATES II and Mates III studies, (Multiple Air Toxics Exposure Study II, March 2000, and Multiple Air Toxics Exposure Study III, Jan 2008, www.aqmd.gov) we have a broad swath of severe air pollution that extends from the ports inland across the Air Basin that adversely affects the lives

and health of over 14 million citizens.). This area has come to be known as the Diesel Death Zone. (I show the map of cancer risks due to air pollution from MATES II. Darkest areas-near the ports- show risks of cancer from breathing air of 5000 to 6000 cases per million (I show the map of cancer risks due to air pollution from MATES II. Darkest areas-near the ports- show risks of cancer from breathing air of 5000 to 6000 cases per million population. MATES III map shows the same structure with somewhat different numbers. Federal Standard for this risk from one project should be less than 1 per million population, from all sources in an area should be less than 300 cases per million population. AQMD Rules require a risk of less than 10 per million for any new facility.

Attachments A: “Cancer Risks from Breathing Air-Mates II, and MATES III” maps of our region showing risk stratified areas. First map was done from data supporting figure 5-3a page 5-10 in MATES II. This black and white figure (5-3a) is also attached but this figure merely shows the high risk areas as large black spots due to printer inadequacy. Note that risks of up to 5,800 cases per million are demonstrated.

Attachment B: “Heart Disease Deaths -1996 Communities in Los Angeles County” (Source L.A. County Dept of Health Services). This map illustrates areas with highest numbers of heart disease deaths in darker colors. It looks very similar to the Cancer risks map I just showed. I assert that some of these heart disease deaths are being caused by air pollution from the ports.

This ugly swath disproportionately affects lower income communities and people of color in places such as Wilmington, Compton, Carson, South Central and East L.A. This map provides clear documentation of a serious environmental justice issue.

The medical literature on the effects of air pollution on human health is vast and growing. Many important studies were done at USC and UCLA Schools of Medicine. It would take longer than my 5 minutes to read through even a partial list of all the adverse effects related to diesel air pollution. Cancer, heart attacks, strokes, chronic obstructive pulmonary disease and asthma are major killers. Additionally Sudden Infant Death Syndrome, premature birth, low birth weight, major cardiovascular birth defects and elevated miscarriage rates have all been linked to air pollution. These constitute tragic and expensive burdens to our society.(Attachment C: “Health Effects of Diesel Exhaust Air Pollution”, August 28, 2003, Port of Los Angeles Port Community Advisory Committee Air Quality Group, with references from the medical/scientific literature attached). These killers are related to air pollution in a largely simple, linear fashion with no known lower threshold of safe exposure. More pollution means more disease, death, and cost to our society.

COST. Industry spokespersons have asserted that the costs of this are “unknown and unknowable”. However it is possible to estimate societal costs due to ship related air pollution. The Union of Concerned Scientists estimated that the cost of “Health Incidences from diesel

exhaust in 2004 in the South Coast” was \$ 10.2 Billion! This was for only the one year they studied. (Source: Sick of Soot, Reducing the Health Impacts of Diesel Pollution in California , Union of Concerned Scientists, June 2004. available at www.ucsusa.org) Knowing that the Ports contribute 25% of the total pollution causing this, we get the Ports total share of the cost as \$2.55 Billion. ($0.25 \times \$10.2 \text{ Billion} = \2.55 Billion) . Then, knowing from the Emissions Inventory that ships contribute 55% of the total Port related air pollution (DPM), we find that *the total health care cost from ship exhaust alone is \$ 1.4 Billion! ($0.55 \times \$2.55 \text{ Billion} = \1.4 Billion)*

That is \$1,400,000,000 in health care costs to be born by our citizens!

We further crunched these numbers, comparing total port related health costs and number of ship calls. We obtained the astonishing result that it appears that each large ship call at the Ports is generating a cost to society of \$315,000 to \$455,000! California is massively subsidizing this industry when externalized costs are considered.

More on this can be found in Paying With Our Health, The Real Cost of Freight Transport in California. The Pacific Institute, June 2006 available at www.pacinst.org.

Another way to look at this is to use the US EPA’s “value of one premature death in 2004 dollars”. The value set by EPA was \$6 Million per avoidable premature death. Union of Concerned Scientists estimated 1400 premature deaths from air pollution in the South Coast Air Basin in 2004. The twin Port’s share of these would be 246 deaths. (0.25 of total pollution \times 1400 deaths from pollution = 246 deaths) The value of these would be \$1,476,000,000. ($246 \text{ deaths} \times \$6\text{million per death} = \1.476 Billion!)

The California Air Resources Board (CARB) has estimated that there are more than 5000 deaths per year in the South Coast Air Basin due to air pollution. CARB also estimated 1200 premature deaths per year in the Air Basin from emissions due to goods movement. (Cost in 2004 dollars would be 7.2 Billion Dollars) AQMD Staff estimate there are more than 700 premature deaths per year from ship emissions in the South Coast Air Basin. (Cost in 2004 dollars would be 4.2 Billion Dollars)

Whichever estimates we choose to use they are all huge!

These are disturbing numbers. However my point is that real people are getting sick and dying. Yet, large often foreign owned corporations get to make maximum profits unhindered by concerns about the health of Americans. The medical costs are externalized and born by our citizens.

MEDICAL. Often we cannot absolutely say that air pollution caused an individual heart attack, stroke, cancer case, sudden death etc. (The tobacco industry used this dodge for decades!) However the epidemiologists have shown, in aggregate, air pollution is responsible for a significant fraction of the total of these cases.

I have treated cases, seen fatalities that appear to be pollution related.

In my years as an Emergency Medicine physician I have of course seen hundreds of fatal or near fatal cases of the illnesses we associate with air pollution. Some stand out in my mind. In my brief time to testify, I can share only a few cases with you.

On a routine busy night in the ER we got a sudden call from the paramedics. They were bringing in a 14 year old boy in **full cardiopulmonary arrest** due to an asthma attack. Two minutes away. We got as prepared as we could in 120 seconds and soon we were in the hand-to-hand struggle with death and destruction we often fight.

This child survived despite the severity of his condition.

But in many cases, the person does not survive. When that happens, *I am the person who must walk down the long hallway, sit down with the family and tell them their loved one didn't make it.* This is a very tough job. I would like not to have to do it so often. Enactment of this bill will prevent many needless premature deaths and enormous related costs in America.

More cases from my own experience:

At 1:30 one July morning three years ago, in the ER, I saw a 55 year old woman complaining of left chest pain. She feared she was having a heart attack. My initial evaluation ruled out a myocardial infarction (heart attack) but unfortunately I found something far more ominous than a "mere" heart attack. Her chest x-ray showed a large tumor mass in her left chest. I feared cancer, but this lady had no risk factors for cancer other than having breathed the air here all her life (no history of smoking, radon gas exposure, asbestos exposure, second hand smoke at work). Unfortunately, my fears were proven correct by further evaluation. It was lung cancer and it had spread to the area around her heart and her brain. She died 6 months later. In my opinion she died from air pollution.

Eighteen months ago, the 48 year old wife of one of my colleagues developed a nagging dry cough. Debbie was a fit nonsmoking, "no risk factor" person. Her workup revealed lung cancer. As 90-95% of lung cancer victims do, she died after a lot of suffering. It was my sad duty to prescribe morphine tablets when she ran out in her last week of life. Her funeral was attended by hundreds of mourners. I was one of them. She left behind a devastated family

including one 12 year old child with special needs who still really needs his mother. Air pollution was the most likely cause of her death.

The point here is that we are not just talking about “numbers”. Real people are sick and dying. Physicians are seeing increasing numbers of cases like these where the only risk factor seems to be living in the Diesel Death Zone.

“But enactment of this bill will send the freight to other ports and destroy many jobs here!” This is one standard response from industry to any proposals that would seek to limit their ability to burn the cheapest, dirtiest fuel in their ships.

The best response to this was actually provided by the Port of Los Angeles. In a recent Draft Environmental Impact Report for a major terminal expansion/increased throughput project, the options of diversion of cargo to other West Coast ports inside and outside Southern California was considered and studied. The Port concluded that this is simply not possible because the facilities to do this simply do not exist and “are not being contemplated” by other major West Coast ports. In Southern California sufficient capacity outside Port of LA/Port of Long Beach “does not exist and cannot be constructed”. According to POLA’s own studies, *the freight must come through these 2 ports*. Put bluntly the shippers need to be able to use these two ports more than the ports need the freight from the shippers.

(See Attachment D: Sections 2.5.2.1 and 2.5.2.2 from “Berths 136-147 Container Terminal Draft Environmental Impact Statement (EIE) Environmental Impact Report EIR”, June 2007. Prepared by Port of Los Angeles, US Army Corps of Engineers and SAIC)

“ But it will cost way too much. Consumers costs will go way up!” We are indebted to the Maersk Corporation for proactively adopting the use of low Sulfur diesel fuel in ships serving their Pier 400 facility, demonstrating that the cost of this is not prohibitive. Additionally, Mr. Jesse Marquez with Coalition for a Safe Environment calculated that even if costs went up \$100 per container (an increase of \$200.000 in a 2000 container ship) the net increase in cost to consumers for, say a pair of sneakers, would be 0.25 cents!

Thus measures such as this legislation that may increase some costs to shippers but protect the health of Americans should be acceptable, enacted, and enforced.

Thank you for your kind attention to my testimony.