

***SB 2526***

LINDA LINGLE  
GOVERNOR OF HAWAII



CHIYOME LEINAALA FUKINO, M.D.  
DIRECTOR OF HEALTH

STATE OF HAWAII  
DEPARTMENT OF HEALTH  
P.O. Box 3378  
HONOLULU, HAWAII 96801-3378

In reply, please refer to:  
File:

**JOINT SENATE COMMITTEES ON ENERGY & ENVIRONMENT AND  
HEALTH**

**SB 2526, RELATING TO AIR POLLUTION CONTROL**

**Testimony of Chiyome Leinaala Fukino, M.D.  
Director of Health**

**February 21, 2008  
2:45 p.m.**

1 **Department's Position:** The Department of Health (Department) appreciates the intent of the bill  
2 but has **concerns** that the cleaner fuel may not be available in Hawaii, and also that the diesel odor  
3 problems may not be not entirely resolved because people have different sensitivities to smells.

4 **Fiscal Implications:** None

5 **Purpose and Justification:** The purpose of this bill is to reduce air emissions from cruise ships by  
6 requiring the burning of fuel with a sulfur content of less than 1000 ppm or installing a control  
7 technology with an equivalent reduction of emissions.

8 The Department generally supports the reduction of air pollutant emissions. Cruise ships employ  
9 large diesel engine generators and boilers that may result in significant amount of air emissions.  
10 Currently, cruise ships burn fuel with a sulfur content typically ranging from 1.4% to 2.5%. The  
11 international limit under MARPOL is 4.5%. Land-based power plants in Hawaii burn mostly 0.5%  
12 sulfur fuel. Limiting the fuel sulfur content to 1000 ppm or 0.1% will result in a significant decrease in  
13 sulfur dioxide emissions. The Department has been monitoring and will continue to monitor sulfur

1 dioxide emissions near Nawiliwili Harbor, but has not measured violations of the air quality standards so  
2 far.

3 The Department recommends that the bill not amend the definitions of “air pollutant” and  
4 “source” because it is not necessary and would cloud rather than provide clarity to the definitions. The  
5 amendment to “air pollutant” to include bunker fuel oil emissions is not necessary as this term already  
6 includes bunker fuel emissions. The amendment to “source” to include any cruise ship is also not  
7 necessary and will cause cruise ships to be subject to other requirements beyond the intent of this bill.  
8 The term “source” is used throughout HAR, Chapter 11-60.1, Air Pollution Control where this  
9 amendment may require cruise ships to obtain air permits and be subject to other air pollution  
10 requirements.

11 In closing, the Department would like to highlight two cautionary points. First, the future  
12 availability of the cleaner fuel in Hawaii is not known, and second, with the cleaner fuel, the diesel odor  
13 problem may be reduced but not eliminated because people have very different sensitivities to smells.

14 Thank you for the opportunity to testify on this bill.

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Legislative Testimony  
**SB 2526, RELATING TO AIR POLLUTION CONTROL**  
Senate Committees on Energy and Environmental,  
and Health

February 21, 2008  
Room: 414

2:45 p.m.

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The Office of Hawaiian Affairs SUPPORTS SB 2526, which prohibits cruise ships from burning bunker fuel as an air pollutant within five miles of Nawiliwili harbor.

OHA notes that some of our beneficiaries in the Nawiliwili area are affected by the emissions of passenger ships while in the harbor. Our statutory and constitutional mandates require us to advocate on our beneficiaries' behalf, and as such we support this bill, which would prohibit the ships from burning bunker fuel in the harbor and especially while moored.

OHA feels that this distance barrier is better than a timed barrier, because it will completely alleviate the issue of discharging a pollutant near inhabited areas. The winds now at Nawiliwili harbor blow in such a way that they can drive these pollutants directly into residential neighborhoods regardless of the time.

In addition, this bill defines bunker fuel oil and defines it as an air pollutant - which it is. This bill also seeks to list the passenger ships themselves as point sources discharging these emissions - which they are. As such, OHA again stands in support of these particular elements of this bill.

We further suggest, based on these definitions and the information behind them, that the prohibition of the burning of bunker fuel be extended to other harbors across the State that welcome cruise ships to their ports. None of our harbors deserve to be polluted by these emissions.

Therefore, OHA urges the Committees to PASS SB 2526, taking the above concerns into account. Thank you for the opportunity to testify.

**testimony**

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**From:** RAYNEREGUSH@aol.com  
**Sent:** Wednesday, February 20, 2008 8:54 AM  
**To:** testimony  
**Cc:** hooser3 - Mary; Rep. James Tokioka; Rep. Hermina Morita; ocraft@hotmail.com, cberg@pixi.com, keapana@aloha.net, freeman@aloha.net, kaimanacd22@yahoo.com, gabriela@keapana.net, dalton@aloha.net, carl.imparato@juno.com  
**Subject:** Sierra Club Testimony in Strong Support of SB 2526 (pdf file attached)  
**Attachments:** SB2526-ShipPollution.pdf

Please see the attached testimony (a pdf file on letterhead) from the Sierra Club Kauai Group Executive Committee. Mahalo.

February 20, 2008 VIA EMAIL: [testimony@capitol.hawaii.gov](mailto:testimony@capitol.hawaii.gov)

**TO:** Senate Committee on Energy and Environment and Committee on Health  
**DATE:** Thursday, February 21, 2008  
**TIME:** 2:45 PM  
**PLACE:** CONFERENCE ROOM 414

**RE: Testimony in Strong Support of SB 2526 Relating to Air Pollution**

Dear Chairs Ige, Menor and Committee Members:

The Kauai Group of the Sierra Club strongly supports Senate Bill 2526 which prohibits cruise ships and other vessels from burning bunker fuel, an air pollutant, within five miles of Nawiliwili Harbor.

The consistency of Kaua'i trade winds bring concentrated bunker smoke emission plumes from the harbor through Niunalu valley where residents are severely affected. The negative health impacts and mortality rates associated with this pollutant have been documented and reported – bunker fuel emissions are toxic and carcinogenic.

It is critical that standards are implemented for oceangoing vessels to burn cleaner fuels.

Retrofitting ships to switch from bunker fuel to a cleaner fuel will lessen environmental and public health impacts and preserve economic viability for the industry.

Commercial marine vessel traffic in U.S. waters is increasing and both the Congress and the International Maritime Organization are adopting regulations to improve mitigation efforts. There is an urgent need for the legislature to implement emission controls and fuel standards as soon as possible. We support requirements for more stringent regulations to ensure that significant emission reductions are achieved.

Please support SB 2526 which provides a solution to reducing the harmful consequences from emissions produced by ships burning bunker fuels in Nawiliwili Harbor. Thank you for the opportunity to comment.

Sincerely,  
Rayne Regush, on behalf of  
Sierra Club, Kauai Group Executive Committee

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Delicious ideas to please the pickiest eaters. [Watch the video on AOL Living.](#)



**SIERRA CLUB** Kaua'i Group of the Hawai'i Chapter  
Post Office Box 3412, Lihu'e, Kauai, Hawai'i, 96766

February 20, 2008 VIA EMAIL: [testimony@capitol.hawaii.gov](mailto:testimony@capitol.hawaii.gov)

TO: Senate Committee on Energy and Environment and Committee on Health  
DATE: Thursday, February 21, 2008  
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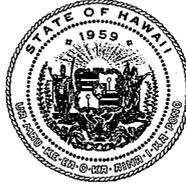
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Please support SB 2526 which provides a solution to reducing the harmful consequences from emissions produced by ships burning bunker fuels in Nawiliwili Harbor. Thank you for the opportunity to comment.

Sincerely,  
Rayne Regush, on behalf of  
Sierra Club, Kauai Group Executive Committee

LINDA LINGLE  
GOVERNOR



**STATE OF HAWAII**  
**DEPARTMENT OF TRANSPORTATION**  
869 PUNCHBOWL STREET  
HONOLULU, HAWAII 96813-5097

BRENNON T. MORIOKA  
INTERIM DIRECTOR

Deputy Directors  
MICHAEL D. FORMBY  
FRANCIS PAUL KEENO  
BRIAN H. SEKIGUCHI

IN REPLY REFER TO:

February 21, 2008

TESTIMONY OF THE DEPARTMENT OF TRANSPORTATION

SENATE BILL NO. 2526

COMMITTEE ON ENERGY AND ENVIRONMENT  
COMMITTEE ON HEALTH

While the Department of Transportation supports efforts to reduce air pollution, we feel that further study is necessary before action is taken to implement legislation on this matter.

The Harbors Division has been working with the Department of Health (DOH) on air pollution control. As a result of this collaborative effort, air quality monitoring equipment has been placed within Nawiliwili Harbor to gather data. Additionally, meetings have been held with the Department of Health and the cruiselines to seek solutions and to address community concerns. We note that NCL America already uses low sulfur fuel on its Hawaii based ships.

It is uncertain whether fuel is even locally available to meet the 1000 ppm standards set by the bill and a fuel study should be undertaken to gather more information. This bill is premature until more data is obtained to determine the specific legislative actions needed to address these concerns.



RE: SB 2526 - RELATING TO AIR POLLUTION CONTROL

Committee On Energy and Environment (ENE) and Committee On Health (HTH)

From: Malama Kaua'i

DATE: Thursday, February 21, 2008

TIME: 2:45 p.m.

PLACE: Conference Room 414  
State Capitol, 415 South Beretania Street

Testimony to support SB2526

Dear Honorable Senate Members,

I am writing to state Malama Kaua'i's support for Senate Bill 2526. Malama Kaua'i is a Kilauea based non-profit working to raise awareness on the importance of sustainability, to assist in implementing sustainable practices and support sustainable projects beneficial to the community.

Community and individual health is foundational to sustainability. The reasonable request for cruise ships to switch to cleaner-burning fuels while at port in Nawiliwili harbor will greatly affect air quality in the area. Niimalu residents are suffering from respiratory health problems related to the burning of bunker fuel by the cruise ship industry. Although cleaner-burning fuels may be slightly more expensive upfront, the resulting health care expenses and possible litigation will prove much more costly in the long-run. Beyond cost, it is a basic human right to live in a clean environment, especially when there are easy and obvious solutions for maintaining a clean environment. We have a choice to make a small economic investment today in order to insure a healthy community tomorrow. What would you do if it were your own 'ohana and community?

With respect,

Andrea Brower  
Malama Kaua'i  
808-635-1659

**Re: SB 2526 – Relating to Air Pollution Control**

**To: Committee on Energy and Environment (ENE) and Committee on Health (HTH)**

**Date: February 21, 2008**

**Time: 2:45 pm**

**Place: Conference Room 414**

**415 South Beretania Street, State Capitol**

**Testimony of Robin R. Murayama to Support SB 2526**

**2342 Hulemalu Road, Niumalu, Kauai**

I am a 4th generation resident of Niumalu born and raised and my daughter now 2 years old is a 5<sup>th</sup> generation of Niumalu. Since our families the Murayama's have been living here for many generations now we are very much so connected to this special place we call Home Niumalu. During my lifetime here I have witnessed many changes around our community (i.e. more homes, realignment of roads, expansion of the harbor, Hulemalu Road as an alternate by-pass, traffic and so on). Furthermore it brings up the single most incident /events that occurs almost everyday pending weather and wind conditions CRUISE SHIP VESSEL EMISSIONS. When these boats call Nawiliwili Harbor their port, we the residents of Niumalu who are only several hundred yards up to ½ mile away down wind literally are being inundated by their Emission plume. Exposure to the emissions has given me these symptoms sore throat, burning watery eyes, nausea and headaches; our window sills are covered with this black film, this is not dust. We are not the only family affected; our neighbors and the community of Niumalu share the same concern.

Our quality of life, health and welfare are being jeopardized each passing day of being subjected to these circumstances, who knows the life long consequences of being exposed to cruise ships (floating cities) emissions that may have to our health. Reason being when they come into port it's literally a floating city with all the things that make a city function, though there are no vehicles, we sure do have a lot of auxiliary traffic associated with the cruise ship not to mention pedestrians and combination of both elements really log- jams the road adjacent to the Port of Nawiliwili; what they require are power plants in size equaling to one third of KIUC'S generated production out-put for the entire Kauai, is this not amazing. This is the source of our problem; require ship's to use cleaner burning fuel. Typical living for our family is to shelter –in place (home) close all windows and most of the time turn on the A/C until they leave, and so forth and so on as they ship in & ship out. We as a Community have sought for solutions with the Department of Health (clean-air branch) and NCL Cruises for the past 2 years going on three years now. No appropriate actions / solutions have taken place thus far but the constant Emissions and the health havoc they wreak on our quality of health & welfare. I feel compelled that things need to improve and that SB 2526 should become law.

I agree that we all need to provide a means of making a living and for businesses to thrive (tourism) and I wholeheartedly am in support but when it comes down to money

vs. our health & welfare (residents of Niualu) this is just wrong. We need SB2526 to become law to see accountability and positive actions to come forth.

Solutions have these ships convert to a cleaner burning fuel (diesel instead of crude bunker oil). Secondly have them dock outside of the bay as they do in Kona and ferry people in.

Mahalo for the opportunity to testify on this bill.

**testimony**

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**From:** Laurie\_Dungan/KAUAIH/HIDOE@notes.k12.hi.us  
**Sent:** Wednesday, February 20, 2008 1:45 PM  
**To:** testimony  
**Subject:** air pollution from cruise ships

RE: SB2526 - RELATING TO AIR POLLUTION CONTROL  
Committee on Energy and Environment (ENE) and Committee on Health (HTH)

From:Laurie Dungan, Kauai High teacher

Date: Thursday, Feb 21, 2008 @ 2:45 p.m.  
Place: Conference room 414  
State Capitol, 415 south Beretania Street

TESTIMONY TO SUPPORT SB2526

Cruise ships are significantly polluting the environment around Nawiliwili. Yesterday our classrooms smelled like ship fuel for most of the day. Four students went to the health room complaining of headaches and my eyes and throat burned.

The remainder of this letter is from one sent to you previously, however it speaks of the problem facing Kauai High and the surrounding neighborhoods, caused by the cruise ships in port.

"It strikes me as strange that we have legislation to prevent individuals from smoking in public areas, yet we allow ships to freely discharge particulates that are many times more damaging to the health of the public.

The arguments that it would be too costly to burn clean fuel or that the fuel is not available on the islands are not valid. You can't place a price tag on the health of the residents and be assured, when a demand for the cleaner fuel exists, refineries will provide the product.

Over the past couple of years, the community has tried to work with NCL to resolve this problem. Unfortunately without success. This was not to single out NCL but they are the most frequent cruise line to visit Nawiliwili. The community needs protection from all ships that now visit or will in the future.

It is now time to mandate a solution. Do not allow profit motives to override common sense."

PLEASE PASS THIS BILL.

2/20/2008

**testimony**

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**From:** Monique\_Imberski@notes.k12.hi.us  
**Sent:** Wednesday, February 20, 2008 1:39 PM  
**To:** testimony  
**Subject:** RE: SB2526 - RELATING TO AIR POLLUTION CONTROL

Committee on Energy and Environment (ENE) and Committee on Health (HTH)

From: Monique Imberski- Niumalu resident and Kauai High School Teacher

Date: Thursday, Feb 21, 2008 @ 2:45 p.m.  
Place: Conference room 414  
State Capitol, 415 south Beretania Street

TESTIMONY TO SUPPORT SB2526

Cruise ships are significantly polluting the environment around Nawiliwili. We wash the back of our house, facing the harbor, every week. You can see the black soot running down the screens and our plants are stressed with a layer of "black, sticky substance" on the stems and leaves, which does not wash off.

It strikes me as strange that we have legislation to prevent individuals from smoking in public areas, yet we allow ships to freely discharge particulates that are many times more damaging to the health of the public.

The arguments that it would be too costly to burn clean fuel or that the fuel is not available on the islands are not valid. You can't place a price tag on the health of the residents and be assured, when a demand for the cleaner fuel exists, refineries will provide the product.

Over the past couple of years, the community has tried to work with NCL to resolve this problem. Unfortunately without success. This was not to single out NCL but they are the most frequent cruise line to visit Nawiliwili. The community needs protection from all ships that now visit or will in the future.

It is now time to mandate a solution. Do not allow profit motives to override common sense.

PLEASE PASS THIS BILL.

RE: SB 2526 - Relating to Air Pollution

TO: Committee On Energy and Environment (ENE) and Committee On Health (HTH)

DATE: Thursday, February 21, 2008  
TIME: 2:45 p.m.  
PLACE: Conference Room 414

State Capitol

415 South Beretania Street

FROM: Donald Greer, Ph.D.  
PO Box 583  
2403 Hulemalu Road  
Lihue HI 96766  
don@kauaichocolate.us

Aloha,

**I support SB 2526 for the following reasons:**

1) Several Niʻuhalu Valley residents have complained of the smell of cruise ship plumes. Residents of the Niʻuhalu Valley are beginning to develop respiratory problems such as coughing, head ache, and throat congestion due to the cruise ship plumes. I suspect that in the future, these respiratory problems will develop into more serious problems such as cancer and death. Research, *Mortality from Ship Emissions: A Global Assessment*<sup>ref 1</sup>, has linked deaths to cruise ship plume emissions. The health and welfare of Hawaii's people must be paramount.

2) The cruise ships docking overnight at Nawiliwili Harbor are violating National Ambient Air Quality Standards (NAAQS). Specifically, the SO<sub>2</sub> 3-hour averaging time maximum exposure limit of 1300 µg/m<sup>3</sup>.

The cruise ship plumes toxic concentration for SO<sub>2</sub> is 2,350 µg/m<sup>3</sup><sup>ref 2</sup>.

It is important to understand that the prevailing trade winds blow from the Nawiliwili harbor into the Niualu Valley. Second, the majority of Niualu residences are between  $\frac{1}{4}$  and  $\frac{1}{2}$  mile from the Nawiliwili Harbor. Last year there were over 150 cruise boats docking overnight at Nawiliwili.

That's 150 boats x 24 hours = 3600 hours.

Let's conservatively assume that only 5% of the time the cruise ship plume descends upon a house in the valley, a house on the hill, or Kauai High School (located on the hill about  $\frac{1}{4}$  mile from the cruise ships).

That's 5% of 3600 hours = 180 hours the cruise ship plumes are violating National Ambient Air Quality Standards.

3) The residents have been ineffective in persuading the government to enforce the National Ambient Air Quality Standards. I suspect it is the old story, big cruise ship business dollars vs. the little Niualu Valley guys. Unfortunately, the little Niualu guys are suffering from the toxins contained in the cruise ship plumes.

To date, the Department of Health has not measured the cruise ship plume. Remember, in the Niualu Valley, we are dealing with single source pollution, the cruise ship plume.

4) Lastly, there is a simple solution to this problem. The cruise ships currently burn residual oil (RO) "Bunker Fuel" in the harbor. Changing to Marine gas oil (MGO) will reduce pollution emissions by about 70%, protect the residents, and stop the cruise ship from violating National Ambient Air Quality Standards. This solution has been implemented in other states (California and Washington) and is easily accomplished.

-don

Ref 1. Mortality from Ship Emissions: A Global Assessment, J A M E S J. C O R B E T T, etal.

College of Marine and Earth Studies, University of Delaware, 305 Robinson Hall, Newark, Delaware 19716, Department of STS/Public Policy, Rochester Institute of Technology, 1356 Eastman, Rochester, New York 14623, Nicholas School of the Environment, Duke University, Box 90328, Durham, North Carolina 22708, and Deutches Centrum fuer Luft- undRaumfahrt (DLR) DLR-Institute fuer Physik der Atmosphaere, Oberpfaffenhofen, Wessling, Germany)

Ref 2. The SO<sub>2</sub> estimate was made from "Current Methodologies and Best Practices for Preparing Port Emission Inventories", Presentation by: Louis Browning, ICF International / Kathleen Bailey, U.S. EPA. May 17, 2006, and "Environmental Fluid Mechanics", Dr. E. Mastorakos, Hopkinson Lab, Engineering Department , Cambridge University.

**RE: SB 2526 - RELATING TO AIR POLLUTION CONTROL**

Committee On Energy and Environment (ENE) and Committee On Health (HTH)

From: Gary Craft – Niimalu Resident

DATE: Thursday, February 21, 2008

TIME: 2:45 p.m.

PLACE: Conference Room 414

State Capitol, 415 South Beretania Street

**INTRODUCTION**

Thank you for the opportunity to submit testimony in support of SB 2526 - RELATING TO AIR POLLUTION CONTROL.

**THE PROBLEM**

Residents of the Niimalu community have been filing complaints with the D.O.H. since before 2000, when the American Hawaii Cruise Line was operating in Nawiliwili on day trips. The substantial increase in complaints from Niimalu residents over the past few years is reflective of the increase in number and size of the visiting ships and particularly the practice of overnight stays by NCL since 2004. The only time the air pollution complaints are registered is when the ships are in port. I am a teacher at Kauai High School and have had several bad periods of ship emissions incidents during Kona (Southeast) winds at Kauai High School actually interfering with proper classroom activities. I have reported 5 of those incidents to D.O.H. and school administration and sent two students to the health room with headaches.

The enormous engines that power large vessels burn residual fuel oil or "bunker fuel".<sup>1</sup> Bunker fuel contains far higher pollutant levels than other fuels, including higher levels of particulate matter, ash, sulfur, and nitrogen, as well as more heavy metals and other toxic substances such as aldehydes, benzene, and polycyclic aromatic hydrocarbons ("PAHs").<sup>2</sup> Bunker fuel, the bottom of the barrel in the refining process, has the consistency of mud and must be heated so that it can flow through engine fuel lines.

Bunker fuel causes a wide array of harmful human health impacts. For instance, combustion of this fuel in a diesel engine produces fine particulate matter that leads to increased cancer risk and adverse health effects such as respiratory illness, impaired lung and heart function, and premature mortality. The negative health impacts of bunker fuel are magnified because large vessel emissions are concentrated in port areas where ships transit and dock, disproportionately impacting disadvantaged communities and communities of color,<sup>3</sup> while also impacting coastal cities and towns along busy shipping corridors.<sup>4</sup>

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<sup>1</sup> In 2007, 84 percent of fuel consumed by vessels above 400 gross tons was bunker fuel. *IMO panel gives new bunker consumption estimate*, SUSTAINABLESHIPPING.COM, Jan. 30, 2008, available at

<http://www.sustainableshipping.com/news/2008/01/70558?gsid=f1f40e4c818411cfb42c353fad22bac1&asi=1>

<sup>2</sup> US EPA (2002), *Health Assessment Document for Diesel Engine Exhaust*, U.S. EPA, Office of Research and Development, National Center for Environmental Assessment, Washington Office, Washington D.C., EPA/600/8-90/057F (2002), at 1-1, available at <http://cfpub.epa.gov/ncea/cfm/recordisplay.cfm?deid=29060>.

<sup>3</sup> While the impacts from marine diesel emissions can affect all people, those most likely to live and work near pollution sources such as ports and their transportation corridors also confront the challenges of poverty, limited access to medical care, low rates of insurance coverage, and virtual exclusion from the public policy decisions that most affect them. Environmental justice communities often suffer from disproportionately high cancer, disease, and mortality rates as they are exposed to the highest levels of carcinogenic, toxic, and hazardous chemicals. Friends of the Earth International, "Air Pollution from Shipping Emissions – Environmental Justice: Public Health and Community Impacts," submitted to the IMO's Marine Environment Protection Committee, May 12, 2005 ("FOEI Environmental Justice Report").

<sup>4</sup> The Santa Barbara Air Quality Management District has determined that, if Category 3 marine engines are not regulated, by 2020 marine vessel pollution will constitute 75 percent of the District's nitrogen oxide inventory and may cause the District to be classified as in nonattainment for the federal ozone standard. Complaint for Declaratory

Today, shipping accounts for about a quarter of the world's nitrogen oxide emissions, which causes smog,<sup>5</sup> and shipping emissions are growing significantly (at a rate of 4.1 percent per year through 2040)<sup>6</sup> as marine transportation increases.<sup>7</sup> Smog causes harmful respiratory effects including shortness of breath, coughing, decreased lung function, inflammation of the lung tissue, aggravation of existing respiratory diseases, and may impair the body's immune system.<sup>8</sup> Children and the elderly are most severely affected by these health effects. Exposure to smog leads to increased hospital admissions and emergency room visits and increases the use of medications.<sup>9</sup>

Ozone and PM<sub>2.5</sub> emitted by large ocean-going vessels can also have severe public welfare effects. Exposure to fine particles can lead to aggravation of the respiratory system, cardiovascular disease, increased asthma, difficulty breathing, chronic bronchitis, and premature death.<sup>10</sup> Particulate matter also causes soiling and erosion damage to materials, including culturally important objects, increases the corrosion of metals, degrades paints, and deteriorates building materials.<sup>11</sup> Emissions from large marine diesel engines also harm the environment by impairing visibility, contributing to haze, acid rain, eutrophication, and nitrophication, and reducing crop yields and productivity of forest ecosystems.<sup>12</sup>

Globally, the scope of the problem from ship air pollution is staggering. In 2002, marine vessel emissions resulted in 60,000 premature deaths, primarily due to the use of high sulfur bunker fuel.<sup>13</sup> This peer-reviewed, published scientific study, supported in part by Clean Air Task Force, estimated that without new regulations, premature deaths from shipping-related emissions will increase by 2012, along with the projected growth in shipping traffic.

Proactive action can change this outcome, however. A new study has found that if shippers switch to marine distillate with a sulfur standard of 1,000 ppm within 200 miles of the world's coastlines, premature mortality could be cut in half, to 42,200 per year.<sup>14</sup>

For these reasons, it is critical that you pass SB2526.

## THE SOLUTION

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and Injunctive Relief, Santa Barbara County Air Pollution Control District, U.S. District Court for the District of Columbia, Filed Dec. 26, 2007, at 4.

<sup>5</sup> A reaction of NO<sub>x</sub> and volatile organic compounds in the presence of heat and sunlight forms ground-level ozone, or smog.

<sup>6</sup> Friends of the Earth International, "New Global and Regional Inventories of Air Pollution from International Shipping," submitted to the IMO subcommittee on Bulk Liquids and Gases, Jan. 12, 2007, BLG 11/5/5, BLG 11/INF.3.

<sup>7</sup> Corbett, J.J., and Koehler, H. 2003. Updated Emissions from Ocean Shipping. *Journal of Geophysical Research*, Vol. 108 (as cited in the United States' proposal entitled "Development of Standards for NO<sub>x</sub>, PM, and SO<sub>x</sub>" submitted to the International Maritime Organization subcommittee on Bulk Liquids and Gases, Feb. 9, 2007)("U.S. NO<sub>x</sub>, PM, and SO<sub>x</sub> Standards Proposal").

<sup>8</sup> 68 Fed. Reg. 9751 (February 28, 2003).

<sup>9</sup> *Id.*

<sup>10</sup> *Id.*, at 9752 (February 28, 2003).

<sup>11</sup> *Id.*

<sup>12</sup> 72 Fed. Reg. 69534-69536 (December 7, 2007).

<sup>13</sup> Corbett et al., "Mortality from Ship Emissions: A Global Assessment," *Environmental Sci. Technol*, American Chemical Society, 42(24), p. 8512-8518, Dec. 15, 2007.

<sup>14</sup> Corbett et al., "Mitigating Health Impacts of Ship Pollution through Low Sulfur Fuel Options: Initial Comparison of Scenarios," Jan. 23, 2008, annex to Friends of the Earth International, "Avoided Global Premature Mortality Resulting from Reduction of Sulphur in Marine Fuel," submitted to the IMO's Marine Environment Protection Committee, Jan. 25, 2008. Almost 70 percent of global shipping emissions occur within 250 miles of shore, where a majority of the world's population lives. Corbett, J.J., P. Fischbeck, and S. Pandis, (1999), "Global nitrogen and sulphur inventories for oceangoing ships," *Journal of Geophysical Research*, Vol. 104, No. D3 (Feb. 20, 1999), at 3465, 3469.

One of the primary methods of complying with SB2526 would be switching from bunker fuel to cleaner marine distillate fuel. This is a highly cost-effective, technically feasible way of lessening health impacts without causing economic harm to the shipping sector. The benefits in switching to cleaner fuel, when one considers environmental and public health factors, far exceed the costs. Although low sulfur fuel can cost from 50-72 percent more than bunker fuel,<sup>15</sup> the cleaner fuel standard of SB2526 applies only to cruise ships within 5 miles of Nawiliwili Harbor. The 2005 CARB auxiliary engine rule which requires all ships visiting ports in California to use low-sulfur distillate fuel in their auxiliary engines while at berth and within 24 nautical miles of the California coastline and future legislation is asking for 200 miles. The CA auxiliary engine rule standard can also be achieved by way of alternative emission control technology. See Cal. Admin. Code tit. 17, § 93118 (g). Vessel operators will only be required to use cleaner marine distillate for a small portion of their Hawaiian Islands trip.

The reductions in fuel sulfur content achieved by switching from bunker fuel can dramatically reduce vessel emissions. The California Air Resources Board (CARB) expects that moving from bunker fuel (approximately 25,000 ppm sulfur content) to 1,000 ppm marine gas oil will reduce PM, SOx, and NOx by 83 percent, 96 percent, and 6 percent, respectively.<sup>16</sup> Similarly, recent modeling of a container ship switch using 22,900 ppm bunker fuel (the average U.S. west coast sulfur content level) to 1,000 ppm marine gas oil found that PM, SOx, and NOx would decrease by 78 percent, 94 percent, and 6 percent, respectively.<sup>17</sup> Finally, the U.S. proposal to the IMO, which would include coastal use of 1,000 ppm distillate, is estimated to reduce PM by 65 percent and SO<sub>2</sub> by 78 percent by 2020.<sup>18</sup>

The attendant health benefits of using marine distillate in lieu of bunker fuel are immense. The Clean Air Task Force study indicates that societal benefits of approximately \$225 billion per year will be realized from globally instituting a 1,000 ppm coastline standard, with annual mortalities reduced by approximately 40,000 [Corbett and Winebrake, 2008].<sup>19</sup>

**EUROPEAN UNION AND THE INTERNATIONAL MARITIME ORGANIZATION**

Several governmental entities, including the United States, have called for the use of low sulfur distillate. Executive officials representing the U.S. at IMO negotiations, including the U.S. EPA and Coast Guard, have as a central feature of their proposal a 1,000 ppm U.S. sulfur coastal zone.<sup>20</sup> In addition, the European Union (E.U.) has a marine gas oil limit of 2,000 ppm for vessels in port and, by January 2010, will reduce the fuel standard to 1,000 ppm<sup>21</sup> for inland vessels and ocean-going vessels at berth in its ports.<sup>22</sup> As discussed above, CARB also has set its auxiliary engine fuel limit at 1,000 ppm by January 2010. CARB believes that “[by] harmonizing with the 2010 EU requirements for low sulfur marine distillates, the staff’s proposal promotes international consistency and increases the availability of cleaner

<sup>15</sup> Note by Secretary-General, “Report on the outcome of the Informal Cross Government/Industry Scientific Group of Experts established to evaluate the effects of the different fuel options proposed under the revision of MARPOL Annex VI,” submitted to IMO subcommittee on Bulk Liquids and Gases, Dec. 20, 2007, at 15.

<sup>16</sup> Winebrake, J.J., and Corbett, J.J. Technical Memorandum – Total Fuel Cycle Analysis for Container Ships: A Comparison of Residual Oil, Marine Gas Oil and Marine Diesel Oil, prepared for Friends of the Earth, June 6, 2007, at 3-4.

<sup>17</sup> *Id.*, at 6.

<sup>18</sup> Note by Secretary-General, “Report on the outcome of the Informal Cross Government/Industry Scientific Group of Experts established to evaluate the effects of the different fuel options proposed under the revision of MARPOL Annex VI,” submitted to IMO subcommittee on Bulk Liquids and Gases, Dec. 20, 2007, at 35.

<sup>19</sup> Friends of the Earth International, “Avoided Global Premature Mortality Resulting from Reduction of Sulphur in Marine Fuel,” submitted to IMO committee on Marine Environment Protection, Jan. 25, 2008.

<sup>20</sup> PM and SOx standards in coastal zones would also be achievable through the use of seawater SOx scrubbers. U.S. NOx, PM, and SOx Standards Proposal.

<sup>21</sup> Several U.S. and foreign fuel producers have already begun production on grades of marine distillate with this level of sulfur. See e.g., *Polish player already offering 0.1% sulphur fuel*, SUSTAINABLESHIPPING.COM, Jan. 7, 2008, available at <http://www.sustainableshipping.com/news/2008/01/70274>.

<sup>22</sup> Directive 2005/33/EC of the European Parliament and of the Council, July 6, 2005.

marine distillates at ports that refuel Pacific Rim vessels.”<sup>23</sup> These developments indicate the recognized benefits and feasibility of switching to low sulfur distillate in the near term.

The IMO NOx standards currently in place simply codify emission levels that had already been achieved by industry, and its current fuel standard allows the extraordinarily high level of 45,000 ppm sulfur. Second, it is commonly understood that the IMO is currently considering adoption of new emission standards primarily due to the proliferation of legislative and regulatory actions and proposals at the national and sub-national levels. Without sufficient impetus, the international process could easily fracture and become bogged down, reverting back to a glacial pace. History suggests that U.S. action can precipitate strong international standards. For example, after Congress adopted the Oil Pollution Act of 1990 – requiring all new tankers operating in U.S. waters to be equipped with double hulls – the international community quickly adopted the same requirement.

While some may seek to defer and wait for a national and international consensus to develop around an uncertain level of pollution protection, we believe that the most effective way of resolving the health harms associated with dirty bunker fuels is for Hawaii State Legislators to act now and demonstrate leadership.

**TECHNICAL FEASIBILITY**

Previously, some in the shipping industry have raised concerns about the technical feasibility of switching from bunker fuel to marine distillate. Those concerns have been allayed. At least one major shipping company, Maersk, has demonstrated the feasibility of this switch. It voluntarily switched from bunker fuel to distillate fuel (2,000 ppm) for ships operating within 24 nautical miles of certain California ports.<sup>24</sup> In addition, since the early-1990s, USS-POSCO has been making fuel switches from heavy fuel oil to ultra-low (less than 500 ppm) sulfur distillate prior to entering the Bay Area AQMD boundary on the regular routes between South Korea and Pittsburg, California. Ultra-low sulfur distillate was used to facilitate the use of on-board selective catalytic reduction (SCR) systems to further minimize air pollution.<sup>25</sup> Furthermore, cruise ships within 24 nautical miles of the California coastline have had to use distillate fuel since January 1, 2007.<sup>26</sup> No significant incidents have been reported. U.S. EPA asserts, “properly designed ships would be able to operate on distillate fuel either under a fuel-switching strategy or for extended use.”<sup>27</sup>

CARB has also addressed several technical issues relating to the use of very low sulfur distillate. For example, in response to concerns from industry that low sulfur fuels with lower lubricity could cause damage to fuel pumps, CARB stated that those concerns were associated with landside diesel fuels having very low sulfur levels, lower than the proposed 1,000 ppm standard.<sup>28</sup> In addition, CARB summarized that concerns related to the low viscosity of distillate affecting pump leakage and engine performance could be resolved by minimum viscosity requirements or modifications such as the use of a fuel cooler, thereby lowering fuel temperature and increasing viscosity.<sup>29</sup> Moreover, the USS-POSCO’s experience with using ultra low sulfur diesel for over a decade demonstrates the capacity to use fuel of this nature in large ocean-going vessels. In sum, actual experience and agency opinion demonstrate that marine distillate switching, when performed by competent professionals according to recommended procedures,<sup>30</sup> is feasible.

**CONCLUSION**

The SB2526 is urgently needed. A recent study indicates that by 2012 nearly 84,000 people could die prematurely from global vessel emissions. Other health and quality of life impacts on the Niumalu

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<sup>23</sup> CARB Auxiliary Rule, VI-10.

<sup>24</sup> 72 Fed. Reg. 69525 (December 7, 2007).

<sup>25</sup> CARB Auxiliary rule, VI-12.

<sup>26</sup> CARB Auxiliary Rule, ES-4.

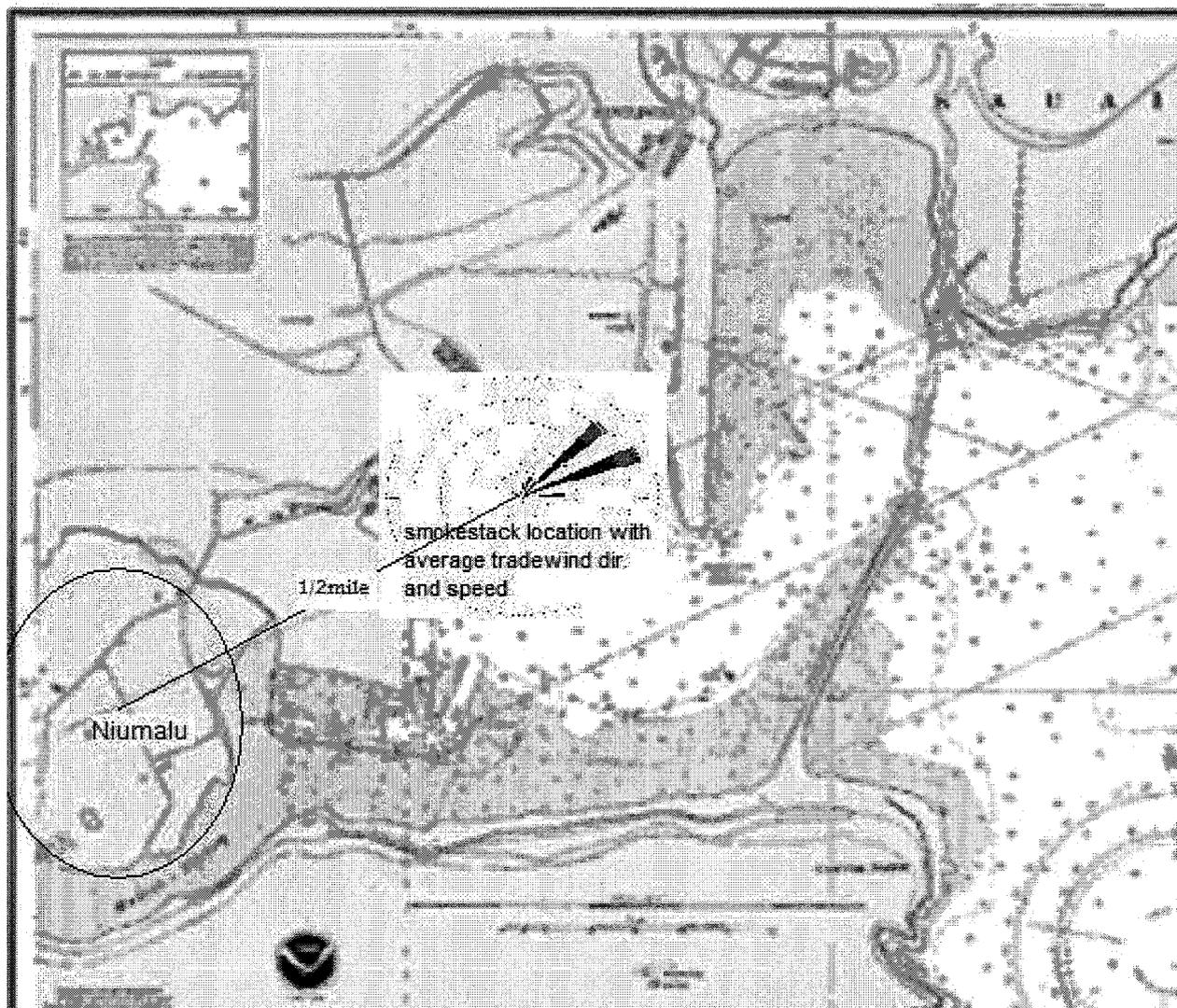
<sup>27</sup> 72 Fed. Reg. 69541 (December 7, 2007).

<sup>28</sup> CARB auxiliary rule, VI-16.

<sup>29</sup> *Id.*

<sup>30</sup> Engine manufacturers and marine equipment suppliers publish guidance for vessel operators that set forth recommended procedures. CARB Auxiliary Rule, VI-13.

community are acute. I have never voiced opposition to the cruise lines; only the fuel they are burning while in Nawiliwili. Trade winds support our islands national air quality 'attainment' status but, ironically, they are responsible for the 'direct-hit' by the cruise ships' Bunker Fuel Emission plume through the Niunalu community. No other state harbors have the unique and unfortunate geographical orientation of a residential community 1/4 - 1/2 mile directly downwind:



Please protect our health by passing SB2526.

**RE: SB 2526 - RELATING TO AIR POLLUTION CONTROL**

Committee On Energy and Environment (ENE) and Committee On Health (HTH)

From: Iris Craft – Niumalu Resident

DATE: Thursday, February 21, 2008

TIME: 2:45 p.m.

PLACE: Conference Room 414

State Capitol, 415 South Beretania Street

**INTRODUCTION**

**Thank you for the opportunity to submit testimony in support of SB 2526 - RELATING TO AIR POLLUTION CONTROL.**

**The Emissions Problem**

Residents of the Niumalu community have been filing complaints with the D.O.H. since before 2000, when the American Hawaii Cruise Line was operating in Nawiliwili on day trips. The substantial increase in complaints from Niumalu residents over the past few years is reflective of the increase in number and size of the visiting ships and particularly the practice of overnight stays by NCL since 2004. The only time the air pollution complaints are registered is when the ships are in port.

There are about 130 homes and one small hotel in Niumalu. Estimating 3-4 persons per home, approximately 500 residents are being exposed to cruise ship emissions. I work in my home office and often have to 'seal-up' the house when the ship emissions plumes are blowing in our direction. I do not have the option during the week to leave and am subjected to the air pollutants. During these times I have had headaches and irritated eyes. When we experience the ship emissions on the weekend we have left our home. It's a sad statement to say that we start our days reviewing the wind direction to see if we will have a "good day" in our own home. It doesn't make us feel any better knowing that if it's not us, it will be one of our neighbors exposed to the pollutants.

We have been patiently dealing with NCL and the DOH for many years now and feel that the only way to protect our health is by legislation. We have worked with NCL and DOH in good faith assuming that they are as concerned about the community health and welfare as we are. On the contrary, we have been placated with promises of more testing from the DOH (none of which have been able to compare to federal standards). Based on testimony from NCL for HB2919, they have shown that they care more about the bottom line than the health of the community. A switch to Diesel fuel would have been a responsible, sensitive, environmentally sound temporary decision, but because of the additional expense NCL chose profits over people's health.

We have never voiced opposition to the cruise lines; only the fuel they are burning while in Nawiliwili. Trade winds support our islands national air quality 'attainment' status but, ironically, they are responsible for the 'direct-hit' by the cruise ships' Bunker Fuel Emission plume through the Niumalu community. No other state harbors have the unique and unfortunate geographical orientation of a residential community ¼ - ½ mile directly downwind. All we have sought for immediate relief is a switch to Diesel prior to entering our Harbor; an increasing worldwide trend that is already required in some California ports.

The impacts as described above seriously affect numerous residences and their occupants and interfere with the reasonable enjoyment of life and property. This is defined in Hawaiian environmental rules as "**Air Pollution**":

*("Air pollution" means the presence in the outdoor air of substances in quantities and for durations which **may endanger human health or welfare, plant or animal life, or property or which may unreasonably interfere with the comfortable enjoyment of life and property** throughout the State and in such areas of the State as are affected thereby, but excludes all aspects of employer-employee relationships as to health and safety.)*  
(HAR, DOH Chapter 11-60.1-1 Definitions)

The same regulations in Chapter 11-60.1-2, Prohibition of Air Pollution, place restrictions on causing air pollution:

*(No person, including any public body, shall engage in any activity which causes air pollution or causes or allows the emission of any regulated or hazardous air pollutant without first securing approval in writing from the director.)*

Niimalu residents believe that cruise ship operators have not been assessing air pollution implications of their activities prior to engaging in such activities and, consequently, have not implemented preventative and/or remedial actions. In addition to health and enjoyment of life issues, this will also lead to substantial losses of property values when disclosed prior to real estate transactions.

### **State Response to Complaints**

Citizen complaints resulted in repeated efforts by the air pollution agency to perform air sampling by various methods and at various locations. Since the sampling was time averaged and the problem is sporadic and episodal, eighteen months of effort have not led to conclusive data.

Responding to a recent letter from another affected resident, Governor Lingle, has kept this issue "gray" using the following statement:

*(Finally, the DOH can estimate the emissions from cruise ships and other sources. However, due to the varying meteorological conditions, different ships in port and the interaction between the emissions from different sources the most appropriate approach to identify and resolve the air pollution issue is with air quality monitoring.)*

We respectfully disagree with this assessment since almost two years of the monitoring approach have had absolutely not led to the slightest abatement of our problem. Ambient air quality monitoring simply is not intended to be used to identify specific air quality problems from individual sources.

The "source" argument promulgated by the DOT and Governor Lingle is a preposterous "smokescreen" (pun intended). Donald Greer PH.D. has done an emission inventory using "**Current Methodologies and Best Practices for Preparing Port Emission Inventories**", Presentation by: Louis Browning, ICF International / Kathleen Bailey, U.S. EPA. May 17, 2006,

[http://www.epa.gov/ttn/chief/conference/ei15/session1/browning\\_pres.pdf](http://www.epa.gov/ttn/chief/conference/ei15/session1/browning_pres.pdf)

This shows that cruise ship emissions provide thousands of times the pollutants of all other sources in the Nawiliwili Harbor area; which is the reason complaints only occur during cruise ship stays, and particularly over night when their electrical generation needs are high. The idea that there is no clear way to identify the source is ludicrous. When cruise ships are docked in our harbor, it's like having a power generation plant larger than Lihue's Kapaia station (27.5 Megawatt capacity) parked right upwind. The only difference is that cruise ships (40 Megawatts capacity) burn a much **less** refined Bunker Fuel instead of the much cleaner Naphtha Fuel used in our power plant. Breathing the toxic smoke from this type of fuel has been linked to increased asthma and cancer in addition to other major health problems see: <http://www.bluewaternet.org/> for more details. We do not have this issue when the ships are not in the Nawiliwili Harbor. In fact, we had a wonderful smoke free weekend just this past week. It was great to relax in our home with all the windows open and get some fresh air.

### **Regarding testimony on the companion bill (HB 2191):**

It was with utter disbelief that Alan Yamamoto would have the impropriety to record a statement correlating resident's health to increased operating expense: "*possibly adding thousands of dollars to each voyage and **impacting bottom line***" particularly to a legislative committee charged with protecting citizens from just this sort of abuse! Residents are being exposed to air pollution that has been correlated with severe illness and even deaths (see **Mortality from Ship Emissions: A Global Assessment**)

JAMES J. CORBETT, \*, †JAMES J. WINEBRAKE, ‡ERIN H. GREEN, †PRASAD KASIBHATLA, †VERONIKA EYRING, †ANDAXEL LAUER  
*College of Marine and Earth Studies, University of Delaware, 305 Robinson Hall, Newark, Delaware 19716, Department of STS/Public Policy, Rochester Institute of Technology, 1356 Eastman, Rochester, New York 14623, Nicholas School of the Environment, Duke University, Box 90328, Durham, North Carolina 22708, and Deutsches Centrum fuer Luft- und Raumfahrt (DLR) DLR-Institute fuer Physik der Atmosphaere, Oberpfaffenhofen, Wessling, Germany)*

A few residents have already sought medical attention for upper respiratory distress. During trade wind periods the plume inundates the Niʻimalu community. On the Kona wind days it runs through the nearby Kauai High School; over 1400 students and staff are exposed to the noxious fumes/pollutants. This concept of collateral damage/acceptable losses is inconceivable! The large NCLA passenger base could absorb the loss by way of a small individual fuel surcharge – a small price to pay for a visit to the paradise that is Kauai; if not, Nawiliwili may not be compatible with “hoteling”/over-nighting of cruise ships. I have never advocated suspending cruise ship use of Nawiliwili. However, if berthing in Nawiliwili is not affordable due to increased fuel expenses, Port Allen should be considered, as the prevailing winds blow offshore there. Mr. Yamamoto has been contacted with information supporting the safety of fuel changes as documented by Terry Shore, the clean water campaign director with the California environmental group Bluewater Network in her article: “**Ship Fuel Switching is Routine and Doable**” from <http://blog.foe.org/portwatch/2007/08/index.html>. He has also been provided information from Tesoro regarding cleaner fuel availability (.05 sulfur diesel used by tugs and superferry). At a recent meeting in “field switching”, Maersk shipping gave a presentation very supportive of fuel switching (<http://www.arb.ca.gov/ports/marinevess/presentations/072407/072407maepres.pdf>).

We would not be here today if NCL and other cruise shipping lines would do the right thing: Like Maersk Shipping lines who has proactively switched to cleaner fuel in preparation of coming legislation and response to a worldwide trend of requiring cleaner fuels: *They reported that the switch has gone smoothly; between April 2006 and May 2007, 78 vessels conducted 298 fuel switches from bunker fuel to cleaner marine distillates in main engines at or before 24 nautical miles from coast.* Also, Pasha Hawaii Transport Lines (the car carrier): *“is pleased to announce the completion of major retrofitting of the company flagship Jean Anne in response to new environmental regulations in California requiring the burning of low sulfur fuel within 24 miles of the coast and alongside. Marine diesel oil is a lighter and cleaner fuel, and will support the Jean Anne's propulsion system via two hundred meters of new piping. The retrofitting was accomplished with no downtime or impact to the vessel's sailing schedule between California and Hawaii”. Additional environmentally-friendly upgrades to the Jean Anne's engine include the installation of slide valves in each of the cylinders of the main engine, which will result in cleaner combustion and reduced emissions at all times - a benefit to Hawaii as the vessel travels between islands. The slide valves also contribute to the efficiency of the engine and lengthen the time between required servicing. “We are keenly aware of our responsibility to protect the environment,” said George Pasha, III, “and are pleased to be able to invest in environmentally friendly technology.”*

Regarding the DOH testimony about “sensitivity” to smells; professional environmental consultants and research have shown that symptoms such as headaches, upper respiratory congestion, chest pain, burning eyes and throat indicate serious health concerns. The Kauai DOH log includes these types of complaints from many individuals throughout our community over the past few years (copies of various complaints are available on request). When we smell the pollution we close up our houses before the associated symptoms occur.

In conclusion, local healthcare insurance is picking up the tab on residents medical visits (during my husband's recent Dr. visit, the MRI alone was almost \$2000) - always diagnosed as “Non-specific respiratory irritation”. Meanwhile, NCL sends the profits back to Florida (if not Norway). The other foreign cruise lines also send their profits home - out of the U.S. This isn't even a good “big-business” deal for us! Hopefully, passage of SB 2526 will help prevent the real likelihood of future litigation costing the state even more. Residents are convinced that if all concerned with the cruise ship Bunker Fuel emission air pollution problem could simply sit in our living rooms when the plume is obvious they would support any and all efforts to immediately prevent further damage to Niʻimalu resident's health.

Mahalo, Iris Oda Craft

**testimony**

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**From:** Marylee & Paul Harris [mplh@hawaii.rr.com]  
**Sent:** Monday, February 18, 2008 12:07 PM  
**To:** testimony  
**Subject:** Testimony re SB 2526- 2/21/08-2:45 p.m.

RE: SB 2526 - Relating to Air Pollution  
TO: Committee On Energy and Environment (ENE) and Committee On Health (HTH)

DATE: Thursday, February 21, 2008  
TIME: 2:45 p.m.  
PLACE: Conference Room 414  
State Capitol  
415 South Beretania Street

I am a resident of Niumalu, Kauai, Hawaii. I urge you to support SB 2526 and provide me and my neighbors with relief from the toxic fumes we are forced to breathe when cruise ships are in port for **any** period of time.

On my way to work each morning a ship is in port, I can plainly see the black plume from the smokestack blowing straight into my neighborhood. When I dust and clean my glass tables, my rag comes away black. And that is what we are breathing here – black smut! Would **you** want that in your neighborhood? Would **you** want your children exposed to the filthy air from cruise ships? Many of us in Niumalu, including myself, have developed increased nasal congestion and nagging coughs due to our exposure to the “bottom of the barrel” fuel used by ships in port.

I am sure you have been supplied with numerous studies and scientific documents relating to this problem in many areas of the world. Unfortunately, we in Niumalu have not been adequately assisted by the State of Hawaii Department of Health in testing our air. They either profess not to have the right equipment, test on a day when the trade winds are not prevailing, or come up with “inconclusive” results.

Kindly carefully review the literature and testimony presented to you and assist the Niumalu residents in regaining their quality of life. Thank you.

Marylee Harris

2390 Hulemalu Road

Lihue, HI 96766

808-246-9933

## RE: SB 2526 - RELATING TO AIR POLLUTION CONTROL

Committee On Energy and Environment (ENE) and Committee On Health (HTH)

From: Dr. Carl J. Berg, Jr., Environmental Scientist and Nawiliwili Bay Resident

DATE: Thursday, February 21, 2008

TIME: 2:45 p.m.

PLACE: Conference Room 414

State Capitol, 415 South Beretania Street

### **Testimony to support SB2526**

Dear Senators

My name is Carl J. Berg, Jr. I am a resident of Nawiliwili Bay, adjacent to the Niumalu community. I am an environmental scientist with a Ph.D. from the University of Hawaii and have had a long professional career as an ecologist. I am a commissioner on the State's Legacy Land Conservation Commission. I am a former employee of the Hawaii Department of Health on Kauai and was trained in monitoring smoke stack emissions.

Public health is at severe risk due to toxic waste spewing from the smoke stacks of cruise ships using Nawiliwili Harbor. The more ships, the more waste, the more severe health problems. It has long been intolerable.

No new studies are needed to document either toxic effects of smoke stack emissions or its effects on public health, as this is well documented in the literature.

Tests of pollutant levels in Niumalu neighborhood were poorly designed and implemented due to constraints of DOH funds and staffing. The results are inconclusive at best, more like a waste of money. Because of the episodic nature of pollutant discharge and wind patterns, there are pulses of extreme pollution which are intolerable. Sampling must be done at the time and in the exact location of worse pollution. Unfortunately this most often occurs in the evening, when DOH staff are not working. But extensive sampling and testing is not needed. You can easily see the blue-grey discharge from the ships and how it drifts inland on to the Niumalu neighborhood (see figure 1). I have taken numerous photographs of this illegal discharge and submitted them to the DOH. You can also smell the pollution and see it settling out on your house, windows,

and furniture. With two ships in the harbor at a time, the pollution levels are sickening, both to the Niumalu community and to the dock workers.

The DOH, in the testimony they submitted for HB2919, stated that "Limiting the fuel sulfur content to 1000 ppm or 0.1% will result in a significant reduction in sulfur dioxide emissions." This is essential. Any higher value means more health problems.

There is a question of the availability of the 0.1% fuel. If it is not available in sufficient quantities today, I contend that if the shipping industry is given time to switch, that a Hawaii refinery will accommodate by producing the 0.1% fuel. It would be a great financial benefit to our local oil refinery industry. There is a trend nationwide to switch to the higher grade fuels and Hawaii has to be a part of that. Perhaps the switch could be gradual, to 0.5% the first year and 0.1% thereafter.

Norwegian Cruise Lines America, Inc. has basically stonewalled and refused to cooperate with the community, contrary to what they have testified. As they stated, their bottom line is the profits for the company, not concerns for the lives and health of the community they are impacting. Their recent pulling of ships from Hawaii proves their lack of concern and I fully expect that they will pull operations completely within a year. But this bill is not directed at NCLA. It is directed at an industry. It must be passed to control air pollution in Niumalu no matter which shipping companies are using the harbor after NCLA leaves. The Department of Transportation is not protecting the community by expanding use of the harbors by pollution spewing ships. They must look at the secondary impacts of harbor expansion and increased usage.

This bill will help improve the lives and protect the health of Niumalu community. That is the bottom line. Do you put into legislation effective controls to air pollution from the shipping industry that will save lives, or do you look after the profits of companies who care little for the 'Aina?

Figure 1. Picture of cruise ship at Nawiliwili harbor taken January 27, 2008 showing typical pollution spewing from smokestack and settling on Niumalu community.



**testimony**

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**From:** manule'a [jtluvmw@lava.net]  
**Sent:** Tuesday, February 19, 2008 5:12 AM  
**To:** testimony  
**Subject:** testimony for SB 2526

RE: SB 2526 - Relating to Air Pollution

TO: Committee On Energy and Environment (ENE) and Committee On Health (HTH)

**DATE:** Thursday, February 21, 2008  
**TIME:** 2:45 p.m.  
**PLACE:** Conference Room  
414 State  
Capitol  
415 South Beretania Street

Aloha Senators,

I am writing to express my enthusiastic support for SB 2526. In Niimalu I have worked, recreated and visited friends who live there, and I have personally experienced the noticeably negative effect of the emissions from cruise ships in our harbor. Some opposing testimony states that there are differing levels of sensitivity to odors and that's the root of the problem, but I can state almost no one would fail to notice the dirtiness of the air when the ship is docked. Even better than requiring reduced sulfur fuels would be requiring the ship to use a clean renewable energy, such as solar, when running its systems in port.

I believe this bill is a step in the right direction, but we need as a state to make requirements even stricter than they have been in the past. It's time for the state to tell businesses what is environmentally acceptable to our needs, and not allow various industries to create informal and unenforceable agreements with no indendant verification of compliance.

It is a mistake to allow any business to police itself or to expect a business to continually seek innovation in reducing its impact. These are concepts that most businesses actively avoid for fear of reduced profit, and Hawaii needs to impose environmental and safety standards on any business wishing to participate in our economy. That is what we constiuents trust our elected officials to do: protect the safety and health of our families, communities, and futures.

Please vote in support of this bill, and help our state on the path of greater sustainability in our future by becoming more discerning in our choices with business.

Thank you,  
Maria Walker  
PO Box 33  
Kapa'a HI 96746

February 19, 2008

RE: SB 2526 - Relating to Air Pollution

DATE: Thursday, February 21, 2008

TIME: 2:45 p.m.

PLACE: Conference Room 414

State Capitol

415 South Beretania Street

TO: Committee on Energy and Environment (ENE) and Committee on Health (HTH)

**Testimony of Shereen Abalos and David Abalos in support of SB 2526**

My name is Shereen Abalos and I am writing in support of SB 2526. There have been numerous complaints from the residents of Niualu regarding the fumes that get emitted from the cruise ships. My aunt, her husband and their 2 year old daughter lives in Niualu just downwind from Nawiliwili Harbor. I have visited them numerous amounts of times and witnessed the effects of the foul odor. Whenever the cruise ships dock, we can smell a foul odor in the air. We would have to turn on the air conditioner and leave it on until the ship leaves, causing the electric bill to soar through the roof. Their 2 year old daughter can't even spend time outdoors in their own backyard because of the fumes. The fumes are so bad that we even experienced headaches and sore throats. I urge you to please support SB 2526 and create a better environment for the residents of Niualu.

Sincerely,  
Shereen and David Abalos

RE: SB 2526 - Relating to Air Pollution  
TO: **Committee On Energy and Environment** (ENE) and **Committee On Health** (HTH)

DATE: Thursday, February 21, 2008  
TIME: 2:45 p.m.  
PLACE: Conference Room 414  
State Capitol  
415 South Beretania Street

Date: Tue, 19 Feb 2008 19:23:00 - 1000

To ENE committee:

[senmenor@Capitol.hawaii.gov](mailto:senmenor@Capitol.hawaii.gov), [senkokubun@Capitol.hawaii.gov](mailto:senkokubun@Capitol.hawaii.gov),  
[senhooser@Capitol.hawaii.gov](mailto:senhooser@Capitol.hawaii.gov), [sentrimble@Capitol.hawaii.gov](mailto:sentrimble@Capitol.hawaii.gov)

From: Michelé Ardaiz-Paisley <[m\\_paisley@sbcglobal.net](mailto:m_paisley@sbcglobal.net)>

Subject: SB 2526 - Relating to Air Pollution  
HB 2919

Aloha,

Please pass HB2919 out of your committee, this bill is very important to Kauai's local resident's health and welfare. The long term harmful effects of cruise ship emissions on residents living downwind from a smokestack spewing noxious pollutants will not be fully known for some time but the short term immediate effects are not pleasant. I find it difficult to understand how a smoking bill forbidding smoking on beaches can pass but a bill forbidding cruise ships from burning their toxic waste into our homes and yards is denied. I believe bill HB2919 that requires a change in the burning of cleaner fuel for cruise ships visiting Kauai should not be denied and is a reasonable request by local residents. Please pass HB2919 out of your committee.

Mahalo,

Michelé Ardaiz-Paisley  
2311B Hulemalu Road  
Lihue, Kauai, HI 96766  
(808) 245-5048 Hm

**testimony**

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**From:** Michele' Paisley [paisleysrus@sbcglobal.net] on behalf of m\_paisley@sbcglobal.net  
**Sent:** Tuesday, February 19, 2008 9:40 PM  
**To:** testimony  
**Subject:** Testimony SB 2526 - Relating to Air Pollution

**Testimony to Support**

RE: SB 2526 - Relating to Air Pollution

TO: **Committee On Energy and Environment** (ENE) and **Committee On Health** (HTH)

**DATE:** Thursday, February 21, 2008  
**TIME:** 2:45 p.m.  
**PLACE:** Conference Room 414  
State Capitol  
415 South Beretania Street

Date: Tue, 19 Feb 2008 19:23:00 - 1000

To Public Access Room at [testimony@capitol.hawaii.gov](mailto:testimony@capitol.hawaii.gov)

From: Marty Paisley <[paisleysrus@sbcglobal.net](mailto:paisleysrus@sbcglobal.net)>- Niumalu Resident

Subject: **Testimony to Support SB 2526 - Relating to Air Pollution**

Aloha,

SB 2526 addresses an intolerable situation in our community where cruise ships are using filthy fuel and spewing the waste over our neighborhoods and schools. More studies are not needed action is required. We need to take action before additional chronic health problems develop in the community. We live in a beautiful and unique place only to have our life's disrupted by toxic fumes that make gardening in our yards and opening our windows impossible while cruise ships are in port. Please pass SB2526, this is a reasonable request by local residents for cruise ships to switch to a cleaner burning fuel while visiting Kauai.

Mahalo,  
Marty Paisley

2311B Hulemalu Road  
Lihue, Kauai, HI 96766  
(808) 245-5048 Hm

**Re: SB 2526 – Relating to Air Pollution Control**

**To: Committee on Energy and Environment (ENE) and Committee on Health (HTH)**

**Date: February 21, 2008**

**Time: 2:45 pm**

**Place: Conference Room 414  
415 South Beretania Street, State Capitol**

**Testimony of Lisa C. Oroman-Murayama to Support SB 2526  
2342 Hulemalu Road, Niumalu, Kauai**

This weekend (2/16-17/08) was a great weekend. My family got to enjoy the outdoors and I was able to open all my windows in our home, the air conditioner was not needed because there were no cruise ships in port at Nawiliwili Harbor. No noxious odor whatsoever was present during the weekend. Monday, February 18, 2008 by 7 am I will be closing all my windows because a cruise ship will be in port. We will not venture outdoors into our yard because of the pollution from the cruise ship. Come Tuesday afternoon I will be able to open my windows and be able to enjoy the outdoors again because a cruise ship has left the harbor. This routine (opening/closing windows, turning on/off air conditioner) goes on like clockwork for the past two year or so. Our livelihood and enjoyment of our home and property are based on the schedule of a cruise ship being in port or not.

Dr. Chiyome Fukino testimony on January 29, 2008 believes that the odor problem we are encountering is partly because we “have different sensitivities to smells.” I can assure you that more than twenty-five individuals living in Niumalu are smelling the same odor from the cruise ship/s and are experiencing the same symptoms of headaches, burning eyes etc.

NCLA Alan Yamamoto has testified that converting to lower sulfur fuel would be costly to his operation, what about the health of the people in Niumalu? The cruise industry should follow an example of PASHA Hawaii; they are concerned about the environment and people living nearby to ports and have upgraded their “Lady Jean” so she will not spew toxic emissions into the air.

Also, with two NCL cruise ship leaving Hawaii we are bound to have other cruise ships coming into port and taking their place. I want the cruise industry to be more eco-friendly and stop using bunker fuel while in Nawiliwili Harbor so we can breathe clean air in Niumalu.

Please take into consideration the future health of myself and family especially my two year old daughter, and fellow neighbors, we are living (yet) and breathing the situation with the cruise industry for the past two years.

Thank You for allowing me to testify.

## testimony

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**From:** Judy Ta'afuli [judithw@hawaii.edu]  
**Sent:** Wednesday, February 20, 2008 9:03 AM  
**To:** testimony  
**Subject:** SB 2526 - Relating to Air Pollution Control

Committee on Energy and Environment (ENE) and Committee on health (HTH)

Please support SB 2526. The long term effects of cruise ship emissions will not be known any time soon.

Please help keep bunker fuel fumes out of our back yards and out of our homes.

Thank you for your dedicated leadership & attention to this matter.

From: Judy L. Ta'afuli  
Niumalu Resident  
Kauai

**testimony**

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**From:** Dyani Fujita [dygur\_kg@hotmail.com]  
**Sent:** Wednesday, February 20, 2008 8:12 AM  
**To:** testimony  
**Cc:** dygur\_kg@hotmail.com  
**Subject:** RE: SB 2526 - Relating to Air Pollution

RE: SB 2526 - Relating to Air Pollution

TO: **Committee On Energy and Environment** (ENE) and **Committee On Health** (HTH)

DATE: Thursday, February 21, 2008  
TIME: 2:45 p.m.  
PLACE: Conference Room 414  
State Capitol  
415 South Beretania Street

**I, Dyani Fujita, was born and raised on Kaua'i with family living in Niumalu, support Senate Bill 2919.**

Aloha,

My name is Dyani Fujita and I am writing to you in regards of bill 2919: the air pollution to Niumalu residents as well as visitors. I was born and raised on Kaua'i and majority of my family reside there. I now live on the Big Island but frequently go back home to visit old friends, family and of course, the beautiful landscape. Majority of the time I stay over in Niumalu. My Aunt and Uncle who reside at 2342 Hulemalu Rd, has been living at this address for some time now. They have recently been blessed with my cousin who is now nearing 2 years old. During my stay there, I often smell gas emissions and as a result, we close all windows to avoid inhalation of the ships fumes. I am very concerned about the fact that if I can't handle the smell for a weekend, how can anyone stand to inhale this toxic smell 24/7?! I also don't think it's humane to take away my Aunt & Uncle's quality of life and for any family living there. My Aunt wants her child to be able to play outside without smelling any toxic exhaust. My cousin is still very young and needs a clean environment to help her grow into a healthy person. I don't think it would be fair to my family, especially my cousin to reap the benefits of a healthy life just because we weren't able to reduce the air pollution in her hometown.

I read senate bill 2526, and to my understanding bunker fuel is what the cruise ships use that "generate large amounts of air pollution from continuous burning, 24 hours/day, 7 days/week...ADVERSE HEALTH EFFECTS FROM INHALING FUMES FROM THE BURNING BUNKER FUEL....AIR POLLUTION from cargo ship exhaust has been linked to PREMATURE DEATH OF 60,000 people worldwide in 2002...in effect, a cruise ship is a VIRTUAL FLOATING POWER PLANT."

Senate Bill 2526 has studies proving the health effects cruise ships cause-DEATH! Although the studies didn't explain the distance the unfortunate lived from the ports for cruise ships, I don't think we should have the residents of Niumalu wait to find out.

I hope you support my testimony for Senate Bill 2919 for the sake and future of the Niumalu residents.

Hoping for the best,

Dyani Fujita  
dygur\_kg@hotmail.com

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2/20/2008

**testimony**

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**From:** manule'a [jtlvmw@lava.net]  
**Sent:** Wednesday, February 20, 2008 1:59 AM  
**To:** testimony  
**Subject:** RE: SB 2526 - RELATING TO AIR POLLUTION CONTROL

RE: SB 2526 - RELATING TO AIR POLLUTION CONTROL

Committee On Energy and Environment (ENE) and Committee On Health (HTH)

aloha senate committee members,

greetings from the garden island. please accept this correspondance in support of SB 2526, relating to air pollution and cruise ship emissions. this important piece of legislation is crucial in establishing safe levels of particulate matter for residents close to cruise ship exhaust plumes.

the obvious fact of air pollution caused by the exhaust of docked vessels has been well documented by residents of the niupalu area. local DOH staff have attempted to monitor the impacts of the plume and its airborne carcinogens but have inexplicably failed to act in a prudent or cautious manner.

newer standards for cleaner burning fuels are being developed and implemented around the globe. navigational and maritime services are being asked to meet these new standards. cruise ships overnighing in harbor should not subject their neighbors with potentially carcinogenic exhaust. sb 2526 and its companion bill hb 2919 address the harmful impacts of cruise ship exhaust and attempts to raise the bar for environmental justice on kauai and throughout the state. please pass sb 2526 out of committee and to the floor for a vote. mahalo for your consideration of SB 2526.

malama pono,.....james g trujillo po box 33 kapaa, HI

**testimony**

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**From:** Lorne Ogmundson [blorne@hawaii.rr.com]  
**Sent:** Wednesday, February 20, 2008 9:34 AM  
**To:** testimony  
**Cc:** Rep. Mele Carroll; Rep. Roland Sagum; Rep. Scott Saiki; repkaramatsu@capito.hawaii.gov; Rep. Michael Magaoay; Rep. Ken Ito; Rep. Cynthia Thielen; Gary Craft; Sen. Gary Hooser  
**Subject:** SB 2526

RE: SB2526 - RELATING TO AIR POLLUTION CONTROL  
Committee on Energy and Environment (ENE) and Committee on Health (HTH)

From: Lorne Ogmundson - Niumalu resident

Date: Thursday, Feb 21, 2008 @ 2:45 p.m.  
Place: Conference room 414  
State Capitol, 415 south Beretania Street

TESTIMONY TO SUPPORT SB2526

Cruise ships are significantly polluting the environment around Nawiliwili. We wash the back of our house, facing the harbor, every week. You can see the black soot running down the screens and our plants are stressed with a layer of "black, sticky substance" on the stems and leaves, which does not wash off.

It strikes me as strange that we have legislation to prevent individuals from smoking in public areas, yet we allow ships to freely discharge particulates that are many times more damaging to the health of the public.

The arguments that it would be too costly to burn clean fuel or that the fuel is not available on the islands are not valid. You can't place a price tag on the health of the residents and be assured, when a demand for the cleaner fuel exists, refineries will provide the product.

Over the past couple of years, the community has tried to work with NCL to resolve this problem. Unfortunately without success. This was not to single out NCL but they are the most frequent cruise line to visit Nawiliwili. The community needs protection from all ships that now visit or will in the future.

It is now time to mandate a solution. Do not allow profit motives to override common sense.

PLEASE PASS THIS BILL.

**testimony**

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**From:** Sam Morningstar [fixitsam@hawaii.rr.com]  
**Sent:** Wednesday, February 20, 2008 10:07 AM  
**To:** testimony  
**Cc:** fixitsam@hawaii.rr.com  
**Subject:** Testimony.doc

[Testimony@capitol.hawaii.gov](mailto:Testimony@capitol.hawaii.gov).

RE: SB2526 – RELATING TO AIR POLLUTION CONTROL  
Committee On Energy and Environment (ENE) and Committee On Health (HTH)  
From: Sam Morningstar – Niualu Resident  
**I will be there to read this testimony**

Date: Thursday, February 21, 2008  
Time: 2:45 p.m.  
Place: Conference Room 414  
State Capitol, 415 South Beretania Street

**Introduction**

Thank you for the opportunity to submit testimony in support of SB2526 – Relating to air Pollution control.

**The Emissions Problem**

I have lived in the Niualu community for almost six years. I new the harbor was there and that the trade winds blew from that direction. My bed room window is on the north east side of the house letting the wonderful breeze blow in. It keeps the whole house cooler as it blows through and out the other windows and doors. We started noticing when the Cruise Ships came into the harbor and the trade winds were 15 mph or more, we could smell the exhaust of the ships. It didn't matter what ship it was. When the NCL ships started to stay in the harbor overnight was when the biggest impact affected me. I am out most of the day and home every night. When the trades we up I would have to close the windows and door in the house to help block out the fumes from coming in. It was better to have the stale air in the house than the fumes from the ship. When the ships aren't in port we have none of the smells.

I believe if it was only the smell that I would be able to live with that. It is the headaches, soar throats, swollen itchy eyes and stuffed up head with a runny nose that lets me know there is a problem. I go off to work and drive up out of the valley to see that the plume of smoke from the ship, that is in the harbor, is going toward my house. The plume goes out of the ship up a short distance and then starts to drop down into the valley and onto the home of Niualu. I don't believe that anyone that sees that can say that it isn't from the ship when they drive back down into Niualu and can smell it. The other physical evidence of soot on the windows and screens of the house, the coating of soot on the cars and plants in the yard, are also evidence that we are breathing this and it is getting on our skin and bad for us. There are many of the residents in Niualu that have been having health problems and have been reporting and filing complaints to D.O.H. since 2000. At this time there are many reports coming out all over the world that show these flue gas emissions from the bunker fuel, of the grade they use here is causing health problems and death in many cases. The other testimony that you have received from our community have gone into detail of many of the reports and laws that are being passed to protect the

public from these hazard. They all are designed to protect the health of the people not the bottom line of the cruise ship industry.

### **The solution**

We are asking for the ships to start burning a higher grade of fuel, while in harbor. At this time they are burning bunker fuel which is the lowest grade of fuel there is and the cheapest. To help them out we aren't saying change from the 2.5 to 4.5 % fuel they use now, all the time, we just want them to use the higher grade of fuel that is rated at .1 to .5% which would make a major reduction in the pollution that is dumped on our community.

### **Conclusion**

I would like to point out that the D.O.H. and all parts of the government should be taking care of the people's health first before they take care of the bottom line of the Cruise Ship Industry. I know that the refinery can and will produce the fuel to run the ships as it is needed. That is why the time frame of this bill is 2010 to take affect, it will give everyone the time to switch to the cleaner fuel and the production can come up on the cleaner fuel, that it already makes to accommodate the needs of the future and other ships, like the Super Ferry. We would hope that the ships will change as soon as possible on there own and not have to be mandated to comply.

I know that we live in the only harbor in the Island that has such a direct impact of the pollution from the cruise ships but this should not be ignored, we are still residents of Hawaii where the air is supposed to be the cleanest in the nation.

Mahalo Sam Morningstar

**testimony**

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**From:** Andy Parx [andyparx@yahoo.com]  
**Sent:** Wednesday, February 20, 2008 11:36 AM  
**To:** testimony  
**Subject:** RE: SB 2526 - RELATING TO AIR POLLUTION CONTROL

Please help us breath in Nawailiwili and stop the pollution resulting from buring bunker fuel

Andy Parks,  
Kauai

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**testimony**

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**From:** Glass [sglass@hawaiiantel.net]  
**Sent:** Wednesday, February 20, 2008 12:16 PM  
**To:** testimony  
**Subject:** Hearing SB2526

**Testimony relating to SB2526**

COMMITTEE: ENE/HTH  
DATE: Thursday, February 21, 2008  
TIME: 2:45 p.m.

**I fully support this bill,** but believe that it should apply to all harbors, statewide.

I worked as a kayak river guide for many years on the Huleia Stream (which flows into Nawiliwili Harbor) and will attest that on any day a cruise ship was in harbor and the wind was out of the NE, the exhaust fumes blanketed the Small Boat Harbor, the Niumalu area, and carried upstream past the Menehune Fish Pond. Many of our customers would comment on it, and it was always very irritating to me.

Stephen Glass  
Kapaa, Kauai

TO: Committee On Energy and Environment (ENE) and Committee On Health (HTH)

DATE:  
Thursday, February 21, 2008

TIME:  
2:45 p.m.

PLACE:  
Conference Room 414

State Capitol

415 South Beretania Street

My name is Bree Fujita and I'm currently a student at Southern Oregon University but born and raised on Kauai. I go to school in Oregon for approximately 6 months altogether and come home once in a while to spend time with family, friends, and to captivate the island's environment. Therefore, being away from home makes me realize what the island has to offer; whether it being bright sunny weather, pristine beaches, or the lush green island scenery. In between these, where does pollution fit in? This is why I am writing in regards to bill SB 2526: Relating to air pollution.

My Aunt, Uncle and two year old cousin reside at 2342 Hulemalu Rd. They often have to close windows due to the smoke pollution which enters their house and having a great concern about their two year old daughter who can't play outside because the toxic wastes which linger around Niamalu. Majority of the time I visit, we often have to put on the air conditioner so clean air can at least circulate in the home rather than having smoke come in. I begin sneezing, scratching my eyes, and having a runny nose because of the fumes that accumulate outside. According to some internet research, I believe that air pollution to children are the highest because their immune systems are still developing. The study case stated that exposure to toxic air contaminants during infancy or childhood could affect the development of the respiratory, nervous, endocrine and immune systems, and could increase the risk of cancer later in life. So please understand that we all are supporting bill SB 2526 and I just want the residents and well as visitors to be as healthy as possible and not have to suffer from the toxic wastes of cruise ships.

Sincerely,  
Bree Fujita

## testimony

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**From:** walter and/or Sandra Toerge [toerge@yahoo.com]  
**Sent:** Wednesday, February 20, 2008 2:54 PM  
**To:** testimony  
**Subject:** re SB 2526 Relating to Air Pollution Control

**RE: SB 2526 - RELATING TO AIR POLLUTION CONTROL**  
Committee On Energy and Environment (ENE) and Committee On Health (HTH)  
From: \_\_\_\_\_ – Niumalu Resident

DATE: Thursday, February 21, 2008  
TIME: 2:45 p.m.  
PLACE: Conference Room 414  
State Capitol, 415 South Beretania Street

### Testimony to support SB2526

My name is Walter Toerge and I live in Niumalu, Kauai. This is written testimony in favor of your passing Bill 2526 to protect us, the residents of Niumalu. We have been appealing to our own Department of Health, our own Department of Transportation, and to NCL itself to look at the situation in our community. Niumalu and the Huleia Stream valley are predominately DIRECTLY downwind from the ships' berthing area. The Cruise Ships generate adequate electrical power to satisfy their guests' needs while in the Port of Nawiliwili by burning the very dirtiest, cheapest type of allowable fuel. It is something like half of all the electrical energy generated on our island is needed by each ship while in port. That ships power while in port is generated by the ships burning the equivalent of asphalt fuel. The smoke, particulates, fumes and others fill our air and are foul enough to cause us to go into our houses if we are outside and to close up our houses if we are inside, or to go away till things change. We've got soot like films on all horizontal surfaces. Some neighbors have been to physicians for respiratory problems, some are sealing and airconditioning their homes, some are relocating, and all of us have the same dirt/soot problems.

Most of the neighborhood has lived here longer than the Cruise Ships have been "Overnighting" and it was the Overnighting that finally brought the ship exhaust to everyone's attention. Niumalu is a working class community and most of us must have been working during the days. The neighbors started talking to each other and we all had a similar set of problems. We spoke to our Department of Health person and asked for help at a community meeting. We then spoke with representatives of NCL who conducted their own "study" on the air quality in Niumalu. NCL held a meeting for us on one of their ships hosted by the Department of Health, NCL Staff and a Conflict Resolution expert from the East West Center. The results of the NCL test were that everything was in normal limits for expulsion in a 24 hour period. Our Department of Health representative said that his testing wasn't really the right test, but since the test he did did not show bad results, he was concluding that the air quality is ok. End of meeting...it's not a problem.

The neighborhood kept calling the Department of Health with the same complaints. The Department did some more non conclusive tests. Apparently the Department of Health doesn't have the right tests to measure the type and patterns of the smoke plumes from the ships. There are many rules that have been established to measure noxious output, but all of the tests average over a long period of time. It seems as if our own Department of Health cannot, or will not help us find a resolution to the problem that still exists. To NCL, profit seems to prevail over the health of Hawaii's residents. Please pass this legislation.

Walter Toerge  
2353 Niumalu Road  
Lihue, Hawaii 96766

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