

LINDA LINGLE
GOVERNOR



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DEPARTMENT OF TRANSPORTATION
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HONOLULU, HAWAII 96813-5097

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IN REPLY REFER TO:

February 27, 2008

TESTIMONY OF THE DEPARTMENT OF TRANSPORTATION

HOUSE BILL NO. 2919, HD 1

COMMITTEE ON TRANSPORTATION
COMMITTEE ON TOURISM & CULTURE

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 address community concerns. We note that NCL America already uses low sulfur fuel on its Hawaii based ships.

To our knowledge, bunker fuel meeting the 5000 ppm standard is not available locally 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.



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

February 25, 2008 VIA EMAIL: TRNtestimony@capitol.hawaii.gov

TO: House Committees on Transportation, and Tourism & Culture
DATE: Wednesday, February 27, 2008
TIME: 9:30 AM
PLACE: CONFERENCE ROOM 309

RE: Testimony in Strong Support of HB 2919 HD1 Relating to Air Pollution Control

Dear Chairs Souki, Yamane and Committee Members:

The Kauai Group of the Sierra Club strongly supports House Bill 2919 which prohibits cruise ships and other vessels from burning bunker fuel, an air pollutant, while berthed at Nawiliwili Harbor.

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

It is critical that standards be 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. Some cruiselines already do this and California requires switching 25 miles outside the harbor.

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 HB 2919 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

manahan1-Haylee

From: Juan Wilson [juanwilson@earthlink.net]
Sent: Monday, February 25, 2008 8:08 AM
To: TRN@capitol.hawaii.gov; TACtestimony
Subject: STRONG SUPPORT FOT HB2919

Committee on Transportation (TRN) - Rep. Joe Souki, chair; Rep. Scott Nishimoto, vice chair

Committee on Tourism & Culture (TAC) - Rep. Ryan Yamane, chair; Rep. Joey Manahan, vice chair

As a resident of Kauai I am distressed by passenger ships burning polluting bunker fuel while they are moored in Nawiliwili Harbor and polluting Niumalu and the surrounding environment. This is an easy problem to fix. Please act to pass this legislation.

Juan Wilson: Architect-Planner
PO Box 949
Hanapepe HI 96716
(808) 335-0733

nishimoto2-Bryce

From: NYC by Sharon [info@nawiliwiliyachtclub.org]
Sent: Monday, February 25, 2008 3:37 PM
To: TRNtestimony
Cc: Rep. James Tokioka; Sen. Ron Menor; Sen. Russell Kokubun; Sen. Gary Hooser; Sen. Gordon Trimble; Sen. Carol Fukunaga; Sen. Roz Baker; Sen. Paul Whalen; senige@Capitol.hawaii.gov; Rep. Hermina Morita
Subject: RE: HB2919HD1 - RELATING TO AIR POLLUTION CONTROL

RE: HB2919HD1 - Relating to Air Pollution Control
SB 2526 - Relating to Air Pollution
TO: Committee on Transportation and Committee on Tourism & Culture

From: Sharon Gibson
Nawiliwili Yacht Club Lifetime Member
30-year Kauai resident

Testimony to support HB2919HD1

DATE: Wednesday, February 27, 2008
TIME: 9:30 A.M.
PLACE: Conference Room 309
State Capitol, 415 South Beretania Street

Aloha and mahalo for your time and careful consideration of the important bill before you. Thank you for allowing me to testify.

I strongly support HB2919 and urge you to understand how detrimental the burning of bunker fuel by cruise ships docked at Nawiliwili is to everyone who has the misfortune of residing downwind from their emissions. I do not live in Niumalu but I have a boat in the Nawiliwili Small Boat Harbor and am a member of the Nawiliwili Yacht Club which has a clubhouse located at the boat harbor. We do not breath the fumes of the bunker fuel emissions 24/7 like the residents of Niumalu, but we suffer the consequences of the filthy black soot that is generated by these emissions.

Our NYC clubhouse is a second story open pavilion, built to enjoy the lovely views of the boat harbor. We have no walls, only roll-up shades on the windward and leeward sides to provide protection from wind and rain. We meet weekly at the clubhouse to enjoy a party that follows our evening buoy races. Our clubhouse is always FILTHY when we arrive to prepare for the weekly party. Every surface is covered with black soot. This is not dust. This is not red dirt. This is dirty, fine, black SOOT. Soot that requires rags and buckets and buckets of water to clean off. It's truly disgusting. You cannot touch anything that hasn't been just wiped clean without having dirty black hands.

I live in an area on the South Shore that is undergoing heavy development. The developers here recognize that their construction projects cause dirt (the red dirt kind) that affects the households downwind from their work sites. They acknowledge their responsibility for this disruption to the neighborhood and provide cleaning services to those affected. It's just a fact of doing business. The cruise ships that dock at Nawiliwili should have the decency to acknowledge THEIR responsibility for the disruptions they are imposing on those they are affecting, and do whatever they can to eliminate the

2/25/2008

problem or compensate those who are affected by their actions. It's the cost of doing business and they should accept that responsibility.

Please consider the very severe consequences that are the result of these floating cities burning dirty bunker fuel and pass this bill to cause them to be regulated. It's just the right thing to do.

Thank you for considering my testimony.

Sharon Gibson
Nawiliwili Yacht Club Lifetime Member
5180 Hoona Road
Koloa, Kauai, HI 96756

nishimoto2-Bryce

From: Tina Yamamoto
Sent: Monday, February 25, 2008 8:30 AM
To: nishimoto2-Bryce
Subject: FW: Testimon2.doc

Didn't know if you received a copy of this or not for Wednesday's hearing TRN/TAC.

From: Tina Yamamoto **On Behalf Of** Rep. Ryan Yamane
Sent: Monday, February 25, 2008 8:22 AM
To: yamane2-Cathy; manahan1-Haylee
Subject: FW: Testimon2.doc

From: Sam Morningstar [mailto:fixitsam@hawaii.rr.com]
Sent: Sunday, February 24, 2008 6:41 PM
To: Rep. Ryan Yamane
Subject: Testimon2.doc

Testimony@capitol.hawaii.gov.

RE: HB2919– AIR POLLUTION; BUNKER FUEL; NAWILIWILI HARBOR; CRUISE SHIPS.

Committee on Transportation and Committee on Tourism and Culture

From: Sam Morningstar – Niumalu Resident

Testimony To Support This Bill, SB2919

Date: Wednesday, February 27, 2008
Time: 9:30 a.m.
Place: Conference Room 309
State Capitol, 415 South Beretania Street

Introduction

Thank you for the opportunity to submit testimony in support of SB2919 – Relating to air Pollution control.

The Emissions Problem

I have lived in the Niumalu community for almost six years. I knew the harbor was there and that the trade winds blew from the direction of the harbor and up the valley. 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, from NE to SW. We started noticing, when the Cruise Ships came into the harbor and the trade winds were blowing, we could smell the exhaust of the ships and our eyes would start to itch, throat would get sore and our sinuses would plug up. 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. The harbor has no activity going on at night, the tugs aren't running, the forklifts aren't running, the only thing running is the generator on the ship. When the trade winds were up I would have to close the windows and door in the house to help block out the flue gases 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 symptoms from the irritants.

I believe if it was only the smell, 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 homes of Niimalu. I don't believe that anyone that sees that can say that it isn't from the ship when they drive back down into Niimalu 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 Niimalu that have been having health problems and have been reporting and filing complaints to D.O.H. since 2002. 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 has gone into greater detail on those reports, that have shown health problems and laws that are being passed in other areas. They all are designed to protect the health of the people not the bottom line of the cruise ship industry.

I am a pipe fitter by trade and have worked in many refineries, if the demand is there for the production of a cleaner fuel, the .01% to .5 %, they will gear up for it and supply it for the industry.

The solution

We are asking for the ships to start burning a higher grade of fuel, while entering, sitting in and leaving the 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 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. Changing the fuel being used 5 miles out so they aren't polluting the air isn't too much to ask. They have to change the fuel 25 miles out along the California coast and have had no problems doing that, so it shouldn't be a problem here. At least they have a tug boat that is sitting in the harbor waiting for them to enter. If they should have a problem, which they haven't up to now from switching fuel, the tug boat is there to assist.

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 is producing the fuel rated at .5% at this time. 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

Re: HB 2919 HD 1 RELATING TO AIR POLLUTION CONTROL

To: Committee on Transportation and Committee on Tourism & Culture

Date: February 27, 2008

Time: 9:30 am

Place: Conference Room 309

415 South Beretania Street, State Capitol

Testimony of Robin R. Murayama to SUPPORT HB 2919 HD 1

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 5th 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, the life long consequences of being exposed to cruise ships (floating cities) emissions have been studied, documented and shown that communities to nearby ports are being affected. 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 cruise ships 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, the constant Emissions and the health havoc they inflict on our quality of health & welfare still exists. I feel compelled that things need to improve and that HB 2919 HD 1 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 Niimalu) this is just wrong.

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

We need HB 2919 HD 1 to pass so we can have accountability and positive actions to come forth.

Mahalo for the opportunity to testify on this bill.

nishimoto2-Bryce

From: Michele' Paisley [paisleysrus@sbcglobal.net] on behalf of m_paisley@sbcglobal.net
Sent: Monday, February 25, 2008 12:29 PM
To: TRNtestimony
Subject: Testimony HB 2919 HD1 - Relating to Air Pollution

Testimony to Support
RE: HB 2919 HD1 - Relating to Air Pollution

TO: Transportation Committee

DATE: Wednesday, February 27, 2008
TIME: 9:30am

Date: Wednesday, 25 Feb 2008 14:23:00 - 1000

To Public Access Room at TRNtestimony@capitol.hawaii.gov

From: Marty Paisley <paisleysrus@sbcglobal.net>- Niumalu Resident

Subject: **Testimony to Support HB 2919 HD1 - Relating to Air Pollution**

Aloha,

HB 2919 HD1 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 **HB 2919 HD1**, 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

2/25/2008

nishimoto2-Bryce

From: Marty Paisley [m_paisley@sbcglobal.net] on behalf of paisleysrus@sbcglobal.net
Sent: Monday, February 25, 2008 12:35 PM
To: TRNtestimony
Subject: Testimony HB 2919 HD1 - Relating to Air Pollution

Testimony to Support
RE: HB 2919 HD1 - Relating to Air Pollution

TO: Transportation Committee

DATE: Wednesday, February 27, 2008
TIME: 9:30am

Date: Wednesday, 25 Feb 2008 14:23:00 - 1000

To Public Access Room at TRNtestimony@capitol.hawaii.gov

From: Michelé Ardaiz-Paisley <m_paisley@sbcglobal.net> - Niualu Resident

Subject: Testimony to Support HB 2919 HD1 - Relating to Air Pollution

Aloha,

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 be denied. I believe bill **HB 2919 HD1** 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.

Mahalo,
Michelé Ardaiz-Paisley

2311B Hulemalu Road

2/25/2008

Lihue, Kauai, HI 96766
(808) 245-5048 Hm

RE: HB 2919 - RELATING TO AIR POLLUTION CONTROL
Committee on Transportation and Committee on Tourism & Culture
From: Gary Craft – Niimalu Resident

DATE: Wednesday, February 27, 2008
TIME: 9:30 A.M.
PLACE: Conference Room 309
State Capitol, 415 South Beretania Street
Testimony to support HB2919

INTRODUCTION

Thank you for the opportunity to submit testimony in support of **HB2919- 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”.¹ 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”).² 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,³ while also impacting coastal cities and towns along busy shipping corridors.⁴

¹ 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>

² 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/recorddisplay.cfm?deid=29060>.

³ 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”).

⁴ 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,⁵ and shipping emissions are growing significantly (at a rate of 4.1 percent per year through 2040)⁶ as marine transportation increases.⁷ 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.⁸ 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.⁹

Ozone and PM_{2.5} 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.¹⁰ 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.¹¹ 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.¹²

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.¹³ 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.¹⁴

For these reasons, it is critical that you pass HB2919.

THE SOLUTION

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.

⁵ A reaction of NOx and volatile organic compounds in the presence of heat and sunlight forms ground-level ozone, or smog.

⁶ 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.

⁷ 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 NOx, PM, and SOx" submitted to the International Maritime Organization subcommittee on Bulk Liquids and Gases, Feb. 9, 2007) ("U.S. NOx, PM, and SOx Standards Proposal").

⁸ 68 Fed. Reg. 9751 (February 28, 2003).

⁹ *Id.*

¹⁰ *Id.*, at 9752 (February 28, 2003).

¹¹ *Id.*

¹² 72 Fed. Reg. 69534-69536 (December 7, 2007).

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

¹⁴ 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 HB2919 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,¹⁵ the cleaner fuel standard of HB2919 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, SO_x, and NO_x by 83 percent, 96 percent, and 6 percent, respectively.¹⁶ 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, SO_x, and NO_x would decrease by 78 percent, 94 percent, and 6 percent, respectively.¹⁷ 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 SO₂ by 78 percent by 2020.¹⁸

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].¹⁹

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.²⁰ 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 ppm²¹ for inland vessels and ocean-going vessels at berth in its ports.²² 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

¹⁵ 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.

¹⁶ 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.

¹⁷ *Id.*, at 6.

¹⁸ 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.

¹⁹ 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.

²⁰ PM and SO_x standards in coastal zones would also be achievable through the use of seawater SO_x scrubbers. U.S. NO_x, PM, and SO_x Standards Proposal.

²¹ 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>.

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

marine distillates at ports that refuel Pacific Rim vessels.”²³ 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.²⁴ 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.²⁵ Furthermore, cruise ships within 24 nautical miles of the California coastline have had to use distillate fuel since January 1, 2007.²⁶ 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.”²⁷

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.²⁸ 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.²⁹ 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,³⁰ is feasible.

CONCLUSION

The HB2919 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

²³ CARB Auxiliary Rule, VI-10.

²⁴ 72 Fed. Reg. 69525 (December 7, 2007).

²⁵ CARB Auxiliary rule, VI-12.

²⁶ CARB Auxiliary Rule, ES-4.

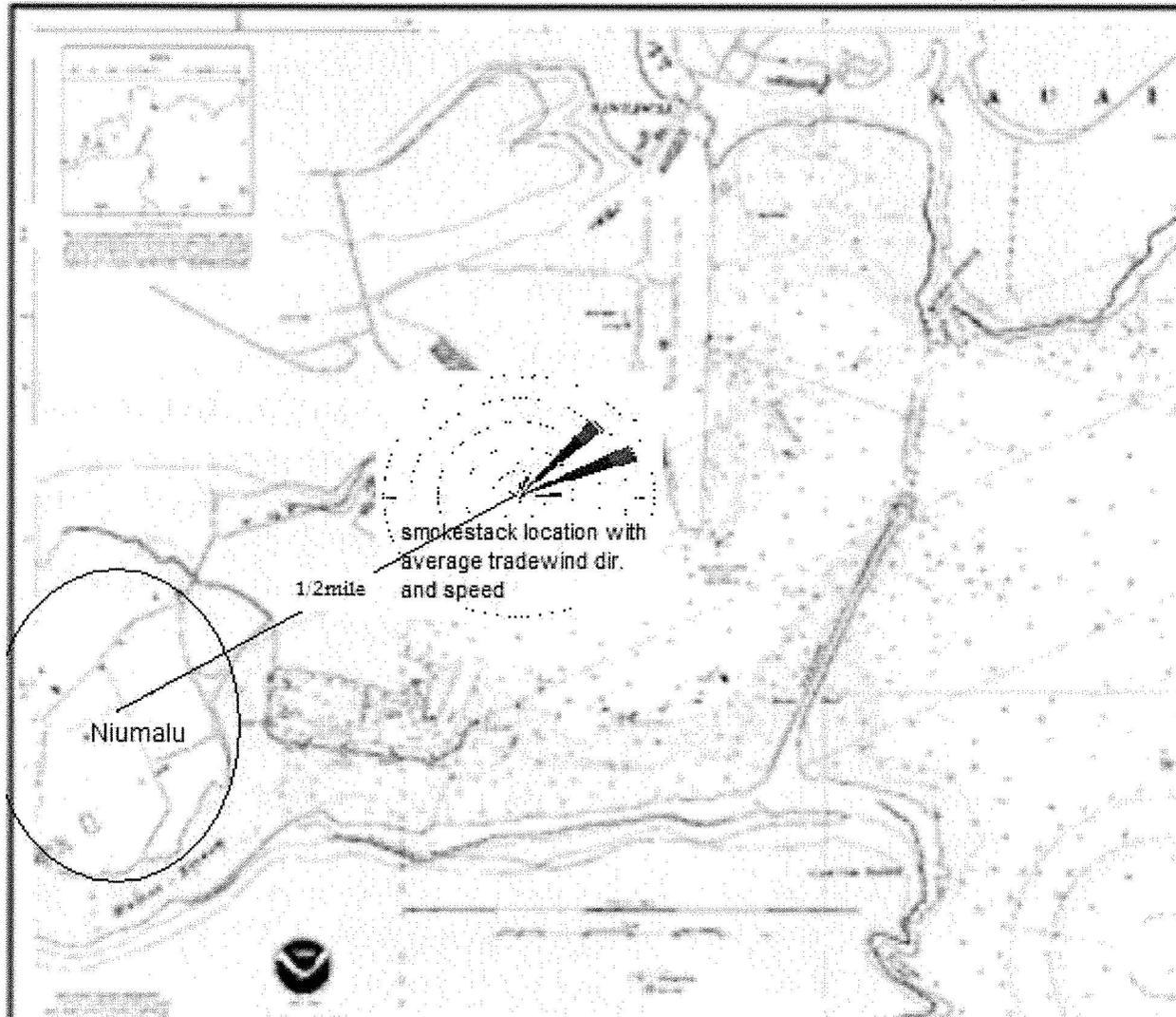
²⁷ 72 Fed. Reg. 69541 (December 7, 2007).

²⁸ CARB auxiliary rule, VI-16.

²⁹ *Id.*

³⁰ 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 Niumalu community. No other state harbors have the unique and unfortunate geographical orientation of a residential community ¼ - ½ mile directly downwind:



Please protect our health by passing HB2919.
Mahalo, Gary Craft

RE: HB 2919 - RELATING TO AIR POLLUTION CONTROL
Committee on Transportation and Committee on Tourism & Culture
From: Iris Craft – Niumalu Resident

DATE: Wednesday, February 27, 2008
TIME: 9:30 A.M.

Testimony to support HB2919

INTRODUCTION

Thank you for the opportunity to submit testimony in support of HB2919- 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 previous 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.)

Niumalu 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

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.bluewaternetnetwork.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 previous testimony on the bill:

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 KASI BHATLA, †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 Niumalu 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 HB2919 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 Niumalu resident's health.

Mahalo, Iris Craft

RE: HB2919 - RELATING TO AIR POLLUTION CONTROL

Committee On Transportation and Committee On Tourism and Culture
From: Dr. Carl J. Berg, Jr., Environmental Scientist and Nawiliwili Bay Resident

DATE: Wednesday, February 27, 2008
TIME: 9:45 AM.
PLACE: Conference Room 309
State Capitol, 415 South Beretania Street

Testimony to support SB2526

Dear Representatives

My name is Carl J. Berg, Jr. I am a resident of Nawiliwili Bay, adjacent to the Niunalu 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. This is not about odor, it is about public health. The children in Kauai High School are getting gassed while in their classes. This must stop.

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. The only difference between cruise ship emissions and power plant emissions is that the cruise ships use dirtier, more toxic fuel.

Tests of pollutant levels in Niunalu 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 Niunalu 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 Niʻimalu community and to the school children.

We do not need studies, the major polluter in Nawiliwili is the cruise ships, and nothing else comes remotely close in the volume and toxicity of discharge. Even our electric generating plant in Port Allen uses cleaner fuel. The cruise ships are just mobile electric generating facilities without appropriate air pollution controls. They need to use cleaner fuels and/or have scrubbers on their smoke stacks.

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 the shipping industry, if given time to switch, will find 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. These cruise ship companies already use 0.5% fuel in California.

The ships must switch fuels while out at sea. Why should they be allowed to put out toxic waste while entering port? They provide no evidence of there being any problem while switching before entering California ports. Besides, as they enter Nawiliwili harbor they must have a tug standing by outside. So if they switch 3-5 miles offshore and there is a problem, the tug is right there anyways. There is no great cost saving for an extra 20 minutes of operating on clean fuel. The cost of using cleaner fuel is way less than \$1.00 per passenger, which can be added to the fare.

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 Niʻimalu 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 and the Kauai High School children. 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 cruise ship 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.



Re: HB 2919 HD1 Relating to Air Pollution Control

To: Committee on Transportation and Committee on Tourism & Culture

Date: February 27, 2008

Time: 9:30 am

Place: Conference Room 309

415 South Beretania Street, State Capitol

Testimony of Lisa C. Otoman-Murayama to Support HB 2919 HD1

2342 Hulemalu Road, Niumalu, Kauai

Unless one lives and experience the effects of breathing noxious fumes from the cruise ship industry one will not be able to understand the impact of the cruise ship emissions onto the Niumalu community. Prior to a ship coming into Nawiliwili Harbor we “shelter-in-place” by closing our windows in our home and turn on our air conditioner and or ceiling fans to prevent the odor from entering our home. On trade wind days, the winds are blowing from the harbor into our community and we are inundated with the emissions from the smokestacks from the ship/s. Being exposed to these emissions will give you a headache, itchy/scratchy throat, just to name a few.

I have a two year old daughter who is being robbed of her “playtime” in her yard because of fear that her health will be compromised when being exposed to emissions from a ship/s is in the harbor. She is allowed to play in the yard when a ship/s has left Nawiliwili Harbor or when there is no ship scheduled to be on Kauai.

Also, per NCLA’s testimony, “the cost of converting to a cleaner fuel would add thousands of dollars to each voyage and impact bottom line” is an unacceptable reason when it affects our health in Niumalu. NCLA was told in 2006 that they should consider changing their fuel; during a community meeting on board the Pride of Hawaii in 2007 their same answer was “converting to a cleaner fuel would be too costly.” This is 2008; you would expect a large company to have done their homework and looked into improving their ships engine and have converted to cleaner fuel by now. PASHA Hawaii Transport Lines has upgraded and did improvements to their ship, Jean Anne, to reduce emissions into the air because of their concern for the environment and because of stricter California laws.

Please pass HB 2919 HD 1 so we will be able to enjoy a better quality of life in Niumalu.

Thank You for allowing me to testify.

Re: HB 2919 HD1 Relating to Air Pollution Control

To: Committee on Transportation and Committee on Tourism & Culture

Date: February 27, 2008

Time: 9:30 am

Place: Conference Room 309

415 South Beretania Street, State Capitol

Testimony of Shereen F. Abalos to Support HB 2919 HD1

5680n Keapana Rd, Kapaa, Kauai

My name is Shereen Abalos and I am writing in support of HB 2929 HD1. There have been numerous complaints from the residents and visitors of Niumalu regarding the fumes that get emitted from the cruise ships. My aunt, her husband and their 2 year old daughter lives in Niumalu 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. Can you imagine the cost of their electric bill? Their 2 year old daughter can't even spend time outdoors in their own backyard because of the fumes. The fumes are so bad, we experience sore throats, and headaches. I urge you to please support HB 2919 HD1 so that we can live in a cleaner and safer environment.

Mahalo,
Shereen Abalos

RE: HB 2919 - RELATING TO AIR POLLUTION CONTROL

Committee on Transportation and Committee on Tourism & Culture

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

DATE: Wednesday, February 27, 2008

TIME: 9:30 A.M.

PLACE: Conference Room 309

State Capitol, 415 South Beretania Street

Aloha,

I support HB 2919 for the following reasons:

1) Several Niimalu Valley residents have complained of the smell of cruise ship plumes. Residents of the Niimalu 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*^{ref 1}, 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 SO₂ 3-hour averaging time maximum exposure limit of **1300 µg/m³**.

The cruise ship plumes toxic concentration for SO₂ is **2,350 µg/m³**.^{ref 2}

It is important to understand that the prevailing trade winds blow from the Nawiliwili harbor into the Niimalu Valley. Second, the majority of Niimalu residences are between ¼ and ½ 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 ¼ 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 Niumalu Valley guys. Unfortunately, the little Niumalu 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 Niumalu 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 SO₂ 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.

nishimoto2-Bryce

From: walter and/or Sandra Toerge [toerge@yahoo.com]
Sent: Monday, February 25, 2008 10:27 PM
To: TRNtestimony
Cc: Gary Craft
Subject: testimony for hb 2919

My name is Walter Toerge and I live in Niumalu, Kauai. This is written testimony in favor of your passing Bill 2919 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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