|    | EPA Public Meeting #12227 9/6/00   |
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| 1  | EPA PUBLIC MEETING   |
| 2  | OCEAN DISCHARGE CRITERIA   |
| 3  | <u>September 6, 2000</u>   |
| 4  | <u>1:10 p.m.</u>   |
| 5  |  |
| 6  | MR. MCCARBERY: Good afternoon. It's a  |
| 7  | pleasure to welcome you here to the Port of Los Angeles, where, as you       |
| 8  | can tell by all of the development out front, we're in some exciting times   |
| 9  | here. We do hope that while you're here you'll have the opportunity to       |
| 10 | take a look at some of our new facilities and some of the things that are    |
| 11 | going on. We hope that your regional hearing on cruise ship discharges       |
| 12 | is very successful in its effort, and again, welcome to the Port of Los      |
| 13 | Angeles.   |
| 14 | MR. VOGT: Thank you very much, Port of Los                                   |
| 15 | Angeles, for inviting us here and holding us and sponsoring this public      |
| 16 | hearing. As you spoke I did recognize we have a few hums in the audio        |
| 17 | system, and we'll see if we can get by that.                                 |
| 18 | My name is Craig Vogt. I am EPA from Washington DC, I                        |
| 19 | am the deputy director of the oceans and coastal protection division.        |
| 20 | This is a public information hearing, and it is not necessarily to be too    |
| 21 | formal an affair. We don't like these things to be boring or too stifling    |
| 22 | in its format. We hope to have a good exchange of information. We            |
| 23 | are, as you probably know, in the information gathering stages of our        |
| 24 | assessment of cruise ships and the waste and wastewater coming from          |
| 25 | those vessels, as well as rules, regulations, policies and practices that go |
| 26 | along with those discharges and waste management issues.                     |
| 27 | We have a number of people that have asked to speak today.                   |
| 28 | The agenda for the day will be, you get to listen to me for a few            |
| 29 | minutes do some overheads and some basic information on who we are           |
| 30 | and what we're doing and what some of our current laws and regulations       |
| 31 | are, we will then go through and hear from speakers. And that is the         |
| 32 | basic agenda for this meeting. With that, I will introduce my friends        |
| 33 | and colleagues. On my right actually, introduce yourselves, if you           |
| 34 | would. And that might be difficult to do, but stand up here and do it        |
| 35 | anyway.  |
| 36 | MR. OTA: I'm Allan Ota with the  |
| 37 | Environmental Protection Agency, Region 9. It's the regional office          |
| 38 | located in San Francisco.  |
| 39 | MR. CARLSON: Hi, I'm Dorn Carlson with                                       |

EPA headquarters. I work for Craig Vogt in the oceans and coastal

protection division, I work on cruise ships, and I'm also involved with the effort on uniform national discharge standards for Armed Forces vessels.

MR. CHARLTON: Hi, I'm Tom Charlton. I work with EPA and I work in the Office of Wastewater Management, which oversees the NPDES permit program.

CAPTAIN BASEL: I'm Captain Brian Basel, chief of the Office of Compliance for Marine Safety and Environmental Protection, Coast Guard headquarters in Washington.

MR. VOGT: And that's the shortest speech you'll ever hear from Brian. We are being recorded today, so when you do have a question -- and I think I'd like to keep this relatively informal, so you can ask questions when I flip through my overheads, interrupt me as I go, but identify yourself as to who you are. And since we're such a small crowd, I'd like you to, if you can, speak loudly to introduce yourselves just briefly as to who you are and who you represent, if you can, for the benefit of all of us that are here. Some of us know some of you, but we don't know all of you. And we'll start over here, and just speak loudly, if you can. And this might be very difficult to catch, and I don't expect you to have to catch every name, but please do be sure to sign up on our sign-up sheets in the rear, please.

(WHEREUPON, the audience introduces themselves.)

MR. VOGT: Okay. Thank you very much. Now we all know each other. I couldn't quite obviously hear everything, so I think the microphones are going to be really important. And when I give a talk I usually like to wander, and it's going to be difficult for me to do that, so I'm going to be tied to the microphone.

Here's why we're here. If this isn't the meeting you thought it was, now would be the time to catch that boat out of here. We are doing three public information hearings, and this is the first. And we're packing them into one fun filled week of today in L.A., Juneau on Friday, and then Miami next Tuesday. These are pretty important meetings, I think, from the standpoint of this is a relatively new subject to EPA; you see some blue-suiters among us, it is not a new subject to the Coast Guard. But we have not had a large role in regulating and managing cruise ships, but have a potential role. We certainly have a role in environmental protection and marine programs, so it is incumbent upon EPA to be on a very rapid learning curve for this activity.

Now, I put this up here, and what's it got to do with cruise ships? Something. It's questions regarding the quality of our environment, the pressures that we're under. And you can see here a number of threats, and they're not necessarily unobvious, point and non-point source discharges, things we've been dealing with for many years.

The Clean Water Act was passed back in the early 70s and was, you know, a follow up to earlier federal legislation on controlling water pollution. These are a number of different threats, and they are causing a number of different stresses in our oceans, and certainly in our inland waters as well. And I don't need to go through each and every one of them, but they are not simple matters.

We took on the very tough problems early on. And as we get to the bigger, more obvious problems, such as the wastewater discharges from pulp and paper mills, from steel mills, from municipal discharge, sewage treatment plants -- and point sources are getting more under control, but we're not done with them yet. I understand Boston today has now finally installed secondary treatment and is now starting to discharge through their "out-fall" pipe out 10 to 12 miles out at sea. Very major progress, but we have lots to do.

Non-point sources are a real serious problem for us all. Introduction of non-native species, that's certainly related to cruise line operations; and then, damage from commercial and recreational use could be related to cruise lines.

See, I take my coat off and stall, that way I don't have to speak, you can read. Okay?

These are a number of problems that are facing our coasts and oceans. Not all our coasts and oceans and marine waters are completely stressed out and having major problems, but there are some poor -- not necessarily poor, but some trends that we really don't like.

Harmful Algal Blooms are on the rise in many of our estuarian waters, as well as in our coastal and ocean waters. A lot of beach closures from those, a number of human health impacts, respiratory problems -- don't go swimming when there's a brown or a red tide going on.

Hypoxia. In the Gulf of Mexico there's a dead zone, every summer it appears, it's something to the effect of 7,000 square miles of no oxygen. That's coming from the results of what's going on in the heartland of the country and coming out of the Mississippi River.

40 percent of beaches had posted warnings back in 1998, or

closed due to something such as pathogens or marine debris. Coral reefs are threatened, and many fish advisories have been issued. So we are not finished with what we have to do in terms of environmental protection.

Cruise vessels, this is obviously the subject of our meeting today. And why we are collecting information, we'll talk about that in a minute. Floating cities, some people have said that. They certainly have changed over the last, say, 20 to 30 years in terms of size and numbers. These are some of the discharges coming from those cruise vessels, and they are regulated, in some manner are not regulated. And those decisions have been made over the years for, we think, good reasons at the time. And we'll talk more about all of this.

Now, the real driving force here, as to why we're here today actually, is the Bluewater Network petition that EPA received back in March. I think it was a very balanced petition in terms of petitions that the agency historically has received. It has identified a problem and requested the agency to move forward on assessing and characterizing the industry, the cruise ship discharges, assess the regulatory and management authorities and how well they are working, and to develop options and recommendations for where we should go in the future for better management and control.

Now, one key factor here that we all should understand is, the EPA made a decision back in 1973, and we provided an exclusion for discharges from the normal operation of ships, discharges incidental to the operation of ships. And we made that based upon at the time that the Clean Water Act had just been passed, major discharge problems were facing us -- and I was at EPA then -- in terms of raw sewage from municipal treatment plants being discharged, industrial waste without any treatment going into our rivers and harbors and oceans, and not thinking that cruise ships presented a very significant problem at the time. Cruise ships were also, at the time, somewhat smaller and fewer in number. So the Bluewater Network, Kira will speak to us I think after my presentation, and we'll hear more about their concerns.

Now, a couple of other things that are going on also at EPA and at my office, I guess, we also have received a petition to regulate ballast water. And that we received, I don't know how long ago. Maybe a year, two years. One year?

MR. CARLSON: A year and a half.

MR. VOGT: A year and a half. Okay. We are very late in the response to that petition. We have been assessing the

options and the information. We have promised many times to get that report out, but we are limited in our capacities in terms of numbers of people and resources that we can apply to any one of these activities. But I think it will also come out soon. It may come out at the same time as our report that assess the cruise line discharges.

Related to this activity is the Uniform National Discharge Standards for vessels of the Armed Forces. There was an amendment to the Clean Water Act, Section 312, that required the EPA and the Navy to develop discharge standards for discharges from vessels of the Armed Services that pose a potential threat to the environment, to the marine environment. And we are developing those on a schedule of the next two to three years to be complete. So there is some preliminary information that is available from that that maybe useful in this activity. The other, maybe not quite as related to this activity, is the Executive Order by the President that came out, I believe, in June on marine protected areas. My office is rapidly developing a set of regulations to revise the ocean discharge criteria for pipes going into the ocean, discharges through pipes, and in specifying special ocean sites in which more stringent requirements would be specified for discharges into those areas because of some ecological or cultural or historical preservation needs.

Briefly, EPA's current authorities are these and the relationship to cruise ships. I'm not going to go through each one. I will talk a little more in depth about the Clean Water Act. This is where I'm a little disadvantaged from being able to slap up an overhead and talk about it briefly instead of doing this transaction time here, instead of wearing my usual mic.

Under the Clean Water Act, Section 312, we regulate sewage discharges from vessels. Not just cruise ships but from vessels. Now, this is different than normal discharges to the ocean, they're to any navigable water to the United States. This sets up a different mechanism and different standards than for other types of discharges into our marine waters, and it splits the authority between EPA and the Coast Guard. And, EPA establishes performance standards for marine sanitation devices. And there are three -- essentially, two kinds of marine sanitation devices. One that is a holding tank, and the other that is a treatment system. So EPA sets the standards and Coast Guard essentially sets the design, the construction, installation, and the certification that these marine sanitation devices are actually working.

These are EPA standards for the different types of marine

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sanitation devices, and it's very simply put. Type one, two and three can be used on vessels less than 65 feet, I think it is. Not 66, it's 65. Okay? And type two and three are to be used on vessels longer than 65 feet. And you can see there are different standards for the different types. Type three is a holding tank. But type one and two, there are distinctions there between how many coliforms – essentially, it's a grinder and a chlorinator for type one. Type two has more stringent requirements in terms of the fecal coliforms that can be discharged, as well as the suspended solids.

The Clean Water Act allows the setting of no discharge zones for sewage. And in order to do that, the states petition the EPA to set an area for no discharge of sewage. And to do that they have to go through a number of criteria, one of which is, the area needs special protection for ecological reasons as well as practical considerations, which are, there are sufficient pump-out facilities available for vessels to discharge their sewage.

Key things here, Section 312 only applies for three miles in the territorial sea, and that the Coast Guard has the primary role here in enforcement.

All right. This Clean Water Act, Section 402, is the NPDES permit program authorities, and this is the exclusion for vessel discharges. And I'll let you read it. But that is why we do not regulate vessel discharges, cruise ship discharges, under the NPDES permit program.

I won't talk about these, but these are other authorities that certainly apply to cruise ships: The Resource Conservation Recovery Act for hazardous materials and solids waste; Marine Protection and Sanctuaries Act, which is essentially the Ocean Dumping Act; Shore Protection Act, which sets out a permit system for vessels that are transporting waste, and "APPS", which, as you can see, covers a lot of ground in terms of oil, noxious materials, garbage and plastic.

Now, EPA is generally known as a regulatory agency. But over the last, I'd say, 10 years we have developed a number of other non-regulatory type programs. And I think this administration has pushed even harder in terms of those kind of non-regulatory public/private partnership, voluntary arrangements that bring some common sense into how we do business.

Regulations achieve a certain objective, but we found that there are other approaches, as well, that can achieve some of our environmental protection approaches, because not every situation is the

same everywhere. And this is just a list of some of those programs:

Project XL I think has been with us for a number of years. And that is essentially looking at maybe a port authority -- I don't want to pick out a port authority, but since we're there, I'm looking at one -- that has a certain group of regulations that apply to it, such as from RCRA, or from storm water runoff or air pollution regulations. Looking at all of those together -- not the bubble concept, I'm not talking about that. But looking at how can you do this better. Maybe there are some tradeoffs in terms of how you can do business and achieve your overall objectives.

Performance Track, I understand, is a relatively new program that our office of wastewater management -- Tom Charlton is our representative from that group -- and is something fairly similar to our Project XL. Another aspect, green ports is a general term. But we like green ports.

EPA provided a grant to the American Association of Port Authorities, who collected a great deal of information and brought together in one handbook, essentially an environmental handbook for ports on terms of different kinds of practices on waste handling, discharges, of how to keep pollution from becoming -- contaminants from becoming pollution out into the harbors -- pollution prevention. So it was a very good effort, and I think it's received a very good audience within the port community.

Sustainable slopes is one I've still been trying to get on. That is certainly one of my vices in life, is skiing. And this is getting together with the ski industry as they build ski areas, or expand ski areas, do it in an environmentally friendly manner. And these are all non-regulatory approaches that EPA thinks are a good idea. So we have a balance within our own program.

One thing I didn't mention, we have done a White Paper, which is in the back. This is in response, our initial response to when we looked at the Bluewater Network petition, we kind of sat down and said, "Well, what do we know right now? Let's put it down on a piece of paper." And we put it down on a piece of paper. You're thinking three pages. Well, it grew to, I don't know, 15 or 20 pages. I think it's a pretty good assemblage of information that EPA had on hand. The Coast Guard was involved briefly. But it was not a comprehensive review, so then the Coast Guard has told me, he says, gee, you know, if you really wanted to do it right, you should have this thing and this thing and this thing. But by the time we would get that done it would

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be this thick. So we kind of went "All right, let's get out what we know now." So for the benefit of these hearings that we're doing right now, we've at least assembled that information.

And in that White Paper, the obvious options are under consideration: regulating under the NPDES permit program for cruise ships, that is certainly one option that we have. We have not made any decisions yet. We truly have not. This is not the time yet to make decisions, this is collect the information. As I said, we at EPA are getting smarter faster, I hope.

Revision of 312, those have been on the books for over 20 years, and this might be an appropriate time to be taking a look at those.

ISM, EMS, code words for industry moving forward on their own, public private partnerships, voluntary options. And I think there's an array of things that we might be able to do but I certainly don't know which ones are appropriate.

And Allen is reminding me, I think I pointed back there to the White Paper, there's copies of the White Paper on the back table.

Next steps, we're doing the public information hearings, we're going to prepare an assessment. And we think we'll finish that assessment in about October, which isn't very far away. That assessment will be, as we said earlier, an assessment of the characteristics and volumes of waste and wastewater from cruise ships; what our current regulatory and non-regulatory authorities are, and programs. Maybe, hopefully, we'll get into assessing how well they're working. Then we will go -- certainly we'll take that, send that out in draft form and get a public review of that. We will work with the Coast Guard in formulating any recommendations in that assessment, and with the public as to what that assessment says and where we go with that; public dialogue, issue recommendations and initiate actions.

This signals the end of my speaking. These are our customers, and we try to make sure that we all think about who our customers are and why these cruise ships are going places that they are. So with that, if you've got any questions I'll be happy to take them. If you don't, we'll go to our first speaker. And I do have a list over here at the table.

Can you go to the mic? Sorry.

QUESTION: Just one question. In your prepatory remarks here, you focus in on the cruise industry but you're citing codes -- the Clean Water Act, etcetera -- that have broader application. So if you would, there is -- we are a small sector of the

marine industry. And if we're going to be doing something here that is going to impact box boats, bulkers, tankers, tug boats in the harbors, day boats, one would think that you would want them represented as well.

MR. VOGT: All right. Thank you. We recognize that cruise ships are one small group of vessels, and any actions that we have for cruise ships could have spill-over effects on other types of vessels and activities, and certainly that point is known to us. And in our assessment we need to keep those kind of impacts -- I don't think impact is the right word, but those activities in mind.

Now, it was easy for me to talk to you this way, from a podium out, but now you're going to talk to us. I'm trying to think how to do that simply. We can use the podium or we can use the microphones. Either way would be fine. We have about six or seven folks that have said they'd like to make a presentation, I would ask that you try to keep those remarks to ten minutes, plus or minus. Be reasonable, we don't want to be here all night. Well, we will be here later this evening, as well.

The session this evening, by the way, says it's between 5:00 -- back here on the board it says 5:00 to 7:00. The federal registry notice, and all of our publicity, I believe, said 6:00 to 8:00. So tonight's session is 6:00 to 8:00, we will do the same thing again. If you're here today and you come tonight, you'll probably here the same -- I'll say the same thing again. It may be more educated this time, but you're certainly welcome to come. But I wanted to make sure that you all understand it's 6:00 o'clock this evening, not 5:00.

So, first on my list, "Sharlene Curtruvelle", excuse me, are you here?

All right. Second on my list, Diane "Mann" -- Diana.

Excuse me.

**QUESTION:** Yes.

MR. VOGT: You can speak from there, or you can come up here, if you like.

QUESTION: Actually, I just wanted to say that I have more questions that maybe later on I'd like to ask, but --

MR. VOGT: Is the mic on?

QUESTION: No. He said it was on but not

very loud. Can you hear me now?

Okay. Thank you. I'm sorry, I thought -- oh, my goodness.

Sorry. I just wanted to say I'll ask a question a little later, I'm going through something right now. Thank you.

MR. VOGT: All right. Thank you. I'm sorry, I didn't understand. Now that maybe the air's off we can just get kind of hot and sweaty but we can hear each other.

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All right. Next on the list was Kira Schmidt, who I think I just saw leave the building. So let us go to Tim Eichenberg, we'll come back to Kira a little bit later.

MR. EICHENBERG: Well, I guess I'm up by default.

My name is Tim Eichenberg, I'm with the Center for Marine Conservation in San Francisco. The center has had a history in working on cruise line issues. We worked for ratification of MARPOL, we worked on the enactment of the Marine Protection Research and Sanctuaries Act, also called the Ocean Dumping Act, the act to prevent pollution from ships, and the Marine Plastic Pollution Resource and Conservation Act of 1987.

In 1991, we initiated a cruise watch program to enlist passengers in assessing the impact of cruise vessels. We organized waste management seminars for the cruise industry between the 1990s, from 1992 to 1998.

We're a member of the Ad Hoc Committee for the Marine Board of the National Research Counsel that led to the 1994 report by the National Academy of Sciences "Clean Ships, Clean Ports, Clean Oceans - Controlling Garbage and Plastic Wastes at Sea."

We developed and conducted an education program, from '96 to '98, for the International Maritime Organization's Wider Caribbean Initiative on ship-generated wastes.

We've worked with the cruise industry from 1995 to the present time to promote our International Coastal Cleanup, and they've been very helpful in that regard, and established model community programs to address marine debris in the Caribbean.

We've reviewed and commented on the February, 2000 GAO report that addressed some of the issues that we're talking about today in reducing marine pollution by cruise ships. And we also have joined in the rule making petition that was filed by Bluewater in March of 2000, and we also are petitioners in the ballast water petition which was filed in January of 1999, which is now, as we noted, a year and a half late. And we look forward to getting those proposed rules out soon.

Our concern with the cruise line industry is, that it is a rapidly growing segment of the tourist/travel industry. As noted in your White Paper and in the GAO report, there are 225 ships that have carried

more than 9 million passengers in 1998, and that this capacity will grow by 35 percent by the year 2003, according to the General Accounting Office.

Current sewage and gray water policies were developed many years ago, in the early 1970s, when the number of vessels and passengers were significantly smaller, vessel impacts were much less, and the marine ecosystem was much healthier than it is now. And it is now believed that gray water, for example, may have greater impacts than sewage. These rules need to be revisited.

Illegal discharges over the past five years have undermined public confidence and created a need for better monitoring and enforcement mechanisms. In the cruise waste streams, physical and secondary impact may have very significant local and regional impacts on coral reefs, fisheries, air and water quality, and highly sensitive and unique marine systems that are frequented by the cruise line industry, kind of like an attractive nuisance. We need more information. But in the interim, we urge that a precautionary approach be adopted to protect critical marine resources in the absence of that information.

The industry has made technological and policy improvements in waste reduction, increased recycling and advanced treatment systems, we recognize that and we applaud the industry for those advances; however, as noted in the General Accounting Office report, much more progress needs to be done to improve government oversight, establish better standards and monitoring of sewage and gray water, improve monitoring and enforcement of existing laws, and follow up on foreign flag vessel violations, which have virtually stopped since 1995, according to the general accounting office.

So our recommendations to you, as you go forward in considering the rule making petition, is to quantify the waste streams that was requested of you in the petition, including oil, solid waste, sewage, gray water, hazardous waste and invasive species, and assess the impacts on water quality, marine environment and human health of these waste streams.

We urge you to rethink the sewage, gray water and ballast water exemptions in the regulations. The Clean Water Act does not exempt all discharges incidental to the normal operation of a vessel as noted in your regulations that were adopted in 1972, just the Armed Forces vessels, and those must comply with the Uniform National Discharge Standards. So we urge you to rethink that exemption.

We urge you to think about the sewages discharged beyond

three miles from shore that may have significant impacts.

We urge you to move quickly on the ballast water petition because some of the impacts from the discharges -- or ballast water and invasive species -- are as significant as any of the ones that we are discussing today.

And we also urge you to think about a general permitting system to eliminate some of the jurisdictional conflicts that you mentioned in your White Paper. That may be one approach to dealing with the problem of different jurisdictions having different regulations.

Another recommendation is, that voluntary self-monitoring through the MOUs and the EMSs that were mentioned is nice, but it's not an acceptable alternative to mandatory record keeping, reporting, and other verifiable compliance mechanisms that have worked successfully under the Clean Water Act. And those should be applied to the discharges from vessels as well. I know that command control is not in fashion right now, but it beats beg and plead any day.

We urge you to protect ecologically sensitive and special marine areas such as corral reefs, marine protected areas, essential fish habitat and (unintelligible) vegetation to which cruise ships are attracted through no discharge and restricted access zones. So we urge you to specifically look at these sensitive areas and maybe adopt more stringent regulations to prevent those sensitive resources from being damaged.

And finally, we urge that more government resources be provided to improve standards and monitoring of waste discharges, conduct water quality sampling programs, which are desperately needed, inspect sewage systems on large vessels, conduct surveillance and enforcement efforts, and refer and follow up on foreign flag ship violations. Thank you.

MR. VOGT: These guys are all taking notes really fast and hard. Have we any comments, questions?

I have one, which is a general one for anyone that is in the audience today. We have tasked ourselves, and been tasked, I guess, with collecting information on the characteristics of waste and wastewater discharges from cruise ships and environmental impacts on the marine environment, and those are the things we are specifically looking for.

So Tim, I guess I'd say, you know, we are looking for specific information on those, and we have found to date that it's been pretty limited. So if you can -- all of you, I guess, can go back -- if we don't collect too much information today, we still are searching for

impacts on the marine environment from specific cruise line discharges, as well as the characteristics of those discharges. So if you are aware of any -- I'll just ask a general question. If you are aware of any impacts on the marine environment from cruise ships, let us know. And that's a general statement to anyone.

Okay. All right. Thank you.

Kira, are you back in the audience? You missed your opportunity first up, so you're second.

MS. SCHMIDT: Good afternoon, my name is Kira Schmidt, and I'm a campaign director with the Bluewater Network. We are a national environmental organization based in San Francisco that fights pollution from motorized recreation, oil and shipping industry practices, and other types of marine pollution.

Bluewater launched its campaign on cruise ship pollution late last year in response to the media attention and the public concern generated by the Royal Caribbean case. Some of the major concerns that Bluewater has are the following:

The series of pollution incidents by cruise ships.

The severity and intentionality of some of these incidents.

Large volumes of waste that cruise ships generate on and discharge into the seas.

The rapid growth in the number and size of cruise ships, and inadequate oversight and regulation of cruise ship waste management, and therefore, inadequate enforcement and deterrence of pollution by cruise ships.

In an effort to respond to these concerns, Bluewater authored a petition to urge EPA to identify and take regulatory action on measures to address pollution by cruise ships. Bluewater and 53 other environmental organizations submitted this petition to EPA in March of this year. The petition highlights loopholes and gaps in federal regulations for various cruise ship waste streams, and recommends, as Craig described earlier, an in-depth assessment of the volumes and characteristics of cruise ship waste streams, analysis of their impacts on water quality, the marine environment and human health, an examination of existing federal regulations that apply or should apply to cruise ship wastes, and formulation of recommendations on how to better control and regulate cruise ship waste streams.

The waste streams that we address in our petition are sewage, gray water, hazardous waste, solid waste, oily bilge water and, per an addendum that we submitted to EPA in August, air emissions

from cruise ships. I'll focus only on a few of these due to time limitations.

As we highlight in our petition, sewage is defined as a pollutant under the Clean Water Act, yet sewage from vessels is exempt from this definition, and is also exempt from regulations requiring NPDES permits for discharges of pollutants into US navigable waters.

Section 312 of the Clean Water Act purportedly fills this gap by requiring certain vessels, including cruise ships, to have marine sanitation devices, which are required to treat the effluent to less than 200 colonies of fecal coliform per 100 milliliters.

The cruise industry and the Coast Guard have explained that they regularly inspect these marine sanitation devices; however, a report that Tim referred to by the General Accounting Office on marine pollution by cruise ships, cited Coast Guard inspectors who stated that they rarely have time to inspect MSDs to see if they're working properly and filtering out harmful contaminants.

Section 312 does not provide for regular monitoring and sampling of MSD effluent to ensure that it is treating the effluent to the standards, nor any means of enforcement or penalties if the effluent is found to exceed these standards. We have strong reason to believe that MSDs treat sewage to these standards for only a short time before they substantially degrade.

Samples that have been taken recently under the Alaska cruise ship monitoring initiative have shown high levels of coliform far in excess of the standards, some more than 9 million, and recall that the federal standard is 200, the state standard in Alaska is 14. We will be interested to see what officials in Alaska do about this. Clearly, we think action needs to be taken to address the problem.

These actions could include regular monitoring and sampling of treated black water to ensure compliance with the effluent standards, enforcement and penalties for violations of standards, development of standards for improved MSD technology, and/or establishment of more no discharge zones to protect sensitive marine ecosystems.

As we highlight in our petition, gray water is exempt from the NPDES permit requirement; however, Bluewater and numerous other environmental groups contend that this exemption has no statutory basis and violates the letter of the Clean Water Act.

Gray water can be legally discharged anywhere. We, and many other parties, are very concerned about the massive volumes of gray water being discharged into our waters without restriction. And

this concern is compounded by past instances where cruise ships were discharging hazardous waste into the water through their gray water systems, and the absence of scientific studies of the constituents or impacts of cruise ship gray water.

The one comprehensive and independent study that we can cite is the Uniform National Discharge Standards analysis, which found that gray water had BOD and nutrients at levels that would be expected to cause localized adverse environmental effects, and levels of conventional and non-conventional pollutants that exceeded state and federal water quality criteria.

We are again extremely concerned with the results of recent sampling of gray water discharges from cruise ships in Alaska, which show levels of fecal coliform upwards of 24 million. These results underscore our contention that gray water discharges must be regulated. And this can be done through a number instruments, including establishing effluent standards, bringing gray water discharges under NPDES permits, requiring and setting technology-based standards for gray water treatment systems, requiring on board wastewater monitors on all ships, and/or setting restrictions on where gray water can be discharged.

As we highlight in our petition, there is a lack of clarity on the part of the cruise industry, regulators, and concerned citizens, on regulations that govern hazardous waste generated on cruise ships.

Issues that remain unclear are questions regarding what status of hazardous waste generator a cruise ship or cruise company is, whether it be small quantity, large quantity or conditionally exempt, small quantity generators, as well as what is the point of generation of the hazardous waste, the ship itself or a storage facility at a port.

There are difficulties with tracking hazardous waste generated on cruise ships due to this lack of clarity, as well as to the ship's mobility. And perhaps most telling, violations of hazardous waste management regulations continue today in Florida despite the signing of a Memorandum of Understanding between the cruise ship industry and the state environmental agency to resolve the misunderstandings behind these violations.

We recommend the clarification of status and point of generation issues and what regulations apply and where, an implementation of improved cradle-to-grave tracking of hazardous waste generated on cruise ships.

EPA has responded to our petition by initiating an

assessment of cruise ship waste streams and management practices, which was described to us earlier. It includes the recent publication of the White Paper, information collection, this series of public hearings, and an inter-agency assessment and recommendations.

And options for recommendations to emerge from this initiative include changes to federal regulations and/or how they're implemented, government-private sector partnerships, or some combination of the two.

I would like to provide some information and then some comments regarding the government-cruise industry partnerships that are currently underway. A Memorandum of Understanding, which I referred to earlier, was signed between the Florida Department of Environmental Protection and the cruise industry in March of this year, which was the result of dialogue over how to address the pattern of violations of hazardous waste management regulations by cruise ships. And, in Alaska, an Alaska Cruise Ship Initiative was launched by the Alaskan Department of Environmental Conservation due to concerns regarding illegal discharges from cruise ships and their growing presence in Alaskan waters.

Regarding the Florida MOU, I will simply note that there was zero public involvement or input into its negotiation, and it has no means of enforcement. And, since it's signature, as I mentioned, violations of the same hazardous waste management regulations have persisted.

Regarding the Alaska Cruise Ship Initiative, the cruise industry sought an enforcement shield for any findings of violations under the initiative, which, thankfully, the Department of Environmental Conservation refused to grant.

The sampling protocol which the cruise industry finally agreed to will not provide sufficient information regarding the waste streams' composition, as it requires only two sampling events per ship for the entire season, does not provide toxicity testing of the whole effluent, and does not adequately test for priority pollutants.

The results of wastewater sampling this summer have shown outrageously high levels of bacteria, as I mentioned earlier; violations of air emission standards are ongoing; recent monitoring has resulted in the issuance of 15 notices of violations for air emission standards in the past two months alone. And there are several other problems with the Alaska initiative, which I will not go into in detail, but I'm going to circulate a comment from a colleague in the environmental community who has been

actively involved in this process.

There's also a bill that has just passed by the California Legislature, AB 2746, which was sponsored by Bluewater Network and authored by California Assembly member George Nakano, whose staff person I thought was going to be here and tell you about that. Maybe she'll turn up later.

The bill creates an inter-agency cruise ship environmental task force, which will gather and assess reports submitted by cruise ship operators of all waste discharged in state waters and off-loaded at California ports. And the task force will monitor emissions from cruise ship smoke stacks, as well, for a period of two years.

The task force will analyze the potential impacts of these waste discharges on California's environment and public health, review current regulations and reporting requirements to which cruise ships are subject, and submit a report to the California Legislature in June of 2003, which makes recommendations on when and how to improve regulations that apply to cruise ship waste management practices in California.

I have some information available on why this legislation is needed, which I can also give you, but suffice it to say that the cruise industry is growing by leaps and bounds. It grew by 67 percent here in California from 1990 to '98, and several cruise ships have been caught illegally polluting California waters, including an incident of dumping pollutants into San Francisco Bay less than a year ago, for which Bluewater is filing suite against Royal Caribbean, and which is also currently under criminal investigation by the Department of Justice and EPA.

We will also probably hear about some other voluntary programs that cruise companies employ to certify their compliance with environmental laws, including classification society certification and internal audits and ISM code certification.

There are also existing regulatory frameworks overseen by relevant agencies in flag states such as Liberia, and the Coast Guard's Control Verification Examination Program.

I will simply mention that the Royal Caribbean ships that were found guilty of routinely and knowingly discharging oil and hazardous waste had ISO certification and had been certified by their class societies in flag states, but none of these mechanisms detected the violations in advance, nor took actions after federal and criminal investigations brought them to light. And in regard to the Coast Guard

inspection program, I refer you to the GAO report mentioned earlier, which highlights a number of shortcomings constraining the Coast Guard's ability to detect or resolve marine pollution violations.

Voluntary efforts by the cruise industry to improve its environmental performance and to engage in dialogue are commendable, and we believe they are definitely steps in the right direction; however, as the voluntary initiatives in Florida and Alaska unfold, they are proving unsatisfactory, as problems and violations of various regulations by cruise ships continue in their wake, they lack mechanisms for oversight or enforcement, and thus deterrence, and, in the case of Florida, for any manner of public involvement by concerned citizens and organizations.

Neither the existing Coast Guard/flag state regulatory regime, nor voluntary programs such as those I just described, are adequate to abate pollution from cruise ships. The supporting evidence is mounting, in the GAO, in the ongoing violations, in the results of the monitoring and sampling in Alaska. These programs must be complemented by new and improved regulatory measures that empower environmental agencies to monitor and enforce standards and provide industry with disincentives to pollute.

The Environmental Protection Agency, because it's sole mission is to protect human health and to safeguard our environment, has a very important role to play, along with concerned citizens, in helping to ensure that the cruise industry's activities do not negatively impact the environment and human health. We are at a critical juncture, the cruise industry is growing rapidly and we have a window of opportunity before us now, with this petition before EPA and with the momentum built up among regulators, legislators, the cruise industry, environmental groups, and the public, to address these issues. And I hope all these stakeholders can work together to find the best solutions for the environment. Thank you.

MR. VOGT: Thank you. Panel, you're taking notes again, any comments, thoughts?

QUESTION: Craig, are you going to open it up to the rest of us for questions, as well?

MR. VOGT: Yes, I think we can do that. First, though, my panel gets an opportunity. I did have a question on the California bill, which I'm not that familiar with.

Did you say essentially it was monitoring and reporting? It's not going in and requiring treatment or any permitting at

| 1          | this point?  |
|------------|--|
| 2          | MS. SCHMIDT: There's actually no new                                       |
| 3          | monitoring or reporting requirements either, it's simply the task force    |
| 4          | will gather the reports and records that are currently compiled and        |
| 5          | submitted by cruise companies and cruise ships. So it's just kind of an    |
| 6          | information gathering and then an assessment.                              |
| 7          | MR. VOGT: Okay. Thank you.   |
| 8          | MR. CARLSON: I have a question, Kira, and                                  |
| 9          | I'll ask this also of the other representative who talks about the bill. A |
| L O        | lot of the information gathering parts of what you just described in the   |
| L1         | California bill sounds similar to the information gathering that we're     |
| L2         | doing, and I just wanted to get your thoughts on the appropriate role of   |
| L3         | the relationship between what's going on at the state and what's going on  |
| L <b>4</b> | at the federal level.  |
| L 5        | MS. SCHMIDT: I certainly think that the                                    |
| L6         | information that's gathered and the assessment that's done under the       |
| L7         | California bill will certainly complement and contribute to this process.  |
| 18         | I'm not exactly sure what the exact role and inter-relation between the    |
| L9         | two will be, but I imagine there will be some crossover.                   |
| 20         | MR. VOGT: Yeah, we can entertain questions                                 |
| 21         | from the audience, provided that we follow ground rules, which are not     |
| 22         | to get into any debates over policies, regulations.                        |
| 23         | This is a factual-type- information-                                       |
| 24         | collection-kind-of-hearing, clarification questions are certainly okay.    |
| 25         | Any questions? And you have to go to the microphone.                       |
| 26         | MR. WALSH: Thank you. Not that I think I                                   |
| 27         | need this microphone.  |
| 28         | MR. VOGT: And you need to identify yourself.                               |
| 29         | MR. WALSH: Jim Walsh. I do have a couple                                   |
| 30         | of questions. I'm not with Royal Caribbean, so I'm fairly unfamiliar       |
| 31         | with their record. But Kira, or anybody else here, I believe the           |
| 32         | violations were from '93 to '95.   |
| 33         | MS. SCHMIDT: (Unintelligible.)   |
| 34         | MR. WALSH: And the ISM code went into effect when?                         |
| 35         | MS. SCHMIDT: I'm sorry, I meant ISO.                                       |
| 36         | MR. VOGT: We have to obey our reporter, and                                |
| 37         | she's asking you to can you respond in the microphone, Kira? Thank         |
| 88         | you.   |
| 39         | MS. SCHMIDT: The first question was  |
| 10         | regarding the Royal Caribbean case, and on one of the ships the            |

violations continued into 1998.

MR. WALSH: And my question was pertaining to the ISM code. The statement was made that the ships were already certified under the ISM code, and it was my understanding that the code didn't come into effect for cruise ships until July of '98.

MS. SCHMIDT: Right. Correct. And I corrected myself. I meant to say ISO certified.

MR. WALSH: The other characterization, having been part of the Memorandum of Understanding in Florida, as a matter of fact, being one of the initiators of it, not being under any penalty -- having initiated it with the West Palm Beach office of the Department of Environmental Protection, the characterization that we were doing anything other than being proactive, is there some information you have concerning Carnival that we would have taken those proactive steps based on some pending litigation or crime?

MS. SCHMIDT: There were a number of cruise companies which had violated certain hazardous waste management regulations, and that's why the Florida Department of Environmental Protection had initiated dialogue with several of those companies. I have a stack of internal DEP documents about that thick, which I'd be happy to share with you, and I believe Carnival was on that list.

MR. WALSH: For the record, Carnival initiated the dialogue with the West Palm Beach office. The West Palm Beach office, as well as the local Coast Guard captain in the port, was brought into the process. It wasn't done under any guise of trying to get a shield from any penalty that had been proposed, and there was no discussion of penalties during the whole process.

MR. VOGT: All right. Thank you very much.

Next is -- oh, do you have a question?

MR. THOMPSON: I'd like to either ask a question or make a couple of comments. I'm Ted Thompson, International Council of Cruise Lines.

Kira, you imply that, at least that the ISM code -- or you said it had internal audits. For the record, I'd like to clarify that the International Safety Management Code requires a series of external independent audits, also. And, that the United States Coast Guard and their port state control oversight can get into those audits when they find -- if they find some problem on board a ship, they can up that ISM code and bring in the flag state and the class society and get into whether or not that ISM code is actually working.

And secondly, there was mention, or reference to a number of violations, 15 violations of air pollution, the cruise line illegally polluting San Francisco Bay, those are all alleged violations at this point, they are under investigation, and I don't think the cruise industry should be tried and pilloried in a public forum for something that's still under investigation. Thank you.

MR. VOGT: Okay. Thank you. And next up we have Ted Thompson, he has requested to speak.

MR. THOMPSON: Let me come up here so I can talk to your face instead of to your back, or having you look at my back.

On behalf of the members of the International Council of Cruise Lines, I'd like to thank the Environmental Protection Agency for the opportunity to make a statement at this public meeting regarding waste management procedures of large cruise ships.

My name is Ted Thompson, I'm the executive vice president of the International Council of Cruise Lines. We are a trade association based in Arlington, Virginia, comprised of 16 member lines that carry approximately 85 percent of the North American cruise passengers on overnight international pleasure voyages. Several of our members are dominant members of the Alaskan market, several operate ships in California, and almost all operate vessels in the Caribbean market, originating from ports in the southeastern United States. Additionally, vessels operated by ICCL call on over 300 ports around the globe. Ours is truly an international industry, and we seek international solutions to issues. If we can't have international solutions, we certainly seek United States wide -- country-wide solutions that are identified in this country, and we appreciate the Environmental Protection Agency's efforts in this regard.

ISO member vessels are not U.S. flagged; however, while operating in U.S. waters, all United States laws must be complied with. Additionally, all of our members must meet international regulations for both environmental protection and safety of life at sea at all times. And these international protocols set the benchmark for environmental and safety standards throughout the world. In fact, these environmental conventions to which the United States is signatory have been adopted into the fabric of the U.S. maritime regulatory system.

As a business that's dependent upon carrying passengers to beautiful locations where our passengers can experience nature's bounty, our membership recognizes that even a perception that the industry is not

meeting U.S. or international standards is damaging to our image, and therefore our prospects. With this reality in mind, the cruise industry has proactively established guidelines regarding environmental practices, safety, medical treatment, and other issues involving cruise ships. These voluntary industry guidelines meet or exceed all requirements in the law of the United States.

In the case of industry environmental management guidelines, our policy goals are based upon the following fundamental principles: to fully comply with all applicable laws and regulations; to maintain cooperative relationships with the regulatory community; to design ships to be environmentally friendly; to embrace new technology; to conserve resources through purchasing strategies and product management; to minimize waste generated and maximize reuse and recycling; to optimize energy efficiency through conservation and management; to manage water discharges, and to educate staff, guests and the community.

In keeping with our commitment to seek out and incorporate new technologies, several ICCL members have committed approximately a million dollars apiece to field testing gray water treatment systems. These test systems, when fully developed and proven, are expected to remove sediments and impurities from gray water streams to the point that the output is essentially clean water.

A copy of this statement, by the way, which I am summarizing here, is in the back right under where it says "Cruise Ship Waste." I put several copies back there, don't know if any are left. We will also post it on our web site, which is W-W-W dot I-C-C-L dot O-R-G. You can find all of our policy statements there, and we will have this statement there also, probably within the next day or so.

In responding to the question of what impact gray water and treated black water -- and I emphasize that it is treated black water -- that this discharge has on the environment, and in an attempt to be proactive in addressing the issue, ICCL contracted a study by M. Rosenblatt & Sons to evaluate the dispersion of wastewater and any suspended solids and entrained substances into the sea as it is discharged. When completed, the analysis report may be viewed on the internet website. Many of you have already seen this, as we had distributed draft copies for comment. We did receive comments on this, and we have made some alterations to it with regard to the conclusion, which has been removed, because that was a stretch for a conclusion, and we have also incorporated some technical comments. We expect the

revised version to be up on our website by this Friday.

These calculations demonstrate that wastewater -- excuse me, I'll start over.

These calculations demonstrate that wastewater discharge constituents are diluted by a factor of approximately 44,000 when a ship is moving at four knots, and this dilution increases to approximately 111,000 when the ship is moving at 10 knots. These dilution factors are based strictly on the internal mixing -- initial mixing concepts associated with mixing zone, and do not take into consideration additional dispersion effects afforded by the vessel wake, tidal or current actions. We believe that this further dilution would be several orders of magnitude.

So within the confines of the available data and the assumptions made, ICCL believes that the analysis demonstrates that gray water dispersed constituent concentrations generated by a typical cruise ship are very low. The study provides a strong indication that the concentration of diluted constituents will be well below specified water criteria.

We're also discussing actual water sampling programs with the EPA and U.S. Coast Guard. Such an undertaking would take water samples and laboratory test them from identified water locations both before and after a cruise ship has passed through while discharging gray water and treated black water. It is expected that this water-sampling program will yield definitive results that may be used in evaluating actual effect of cruise ship wastewater discharge. The Coast Guard in Alaska, I understand, is undertaking this program next week. They have to do it, if they're going to do it this season, before the ships leave up there, and they start leaving around the end of September. The Environmental Protection Agency has indicated that they will work with us to undertake a similar program in the Caribbean during this season down there.

ICCL members -- and I speak for ICCL members, not for 225 cruise ships that operate. A lot of those are smaller U.S. flag vessels. A number of them are non-U.S. flag, but non-ICCL members. Anyway, ICCL members have agreed to and support legislation that was introduced this past December that will establish mechanisms whereby the American public could be assured the cruise industry is indeed operating its vessels in a manner that we have specified. We have taken this support even though this legislation singles out cruise ships in particular. In fact, it singles out cruise ships over 10,000 tons, which is

ICCL member operators. We support this legislation because it codifies our current voluntary operating practices in Alaska. And I need to point out that when we enter into voluntary operating practices such as we have in Alaska and such as we have here in California not to discharge unless we are under way at six knots, and in the case of California not within California state waters, that we take those operating commitments around the world with us. We're not interested in doing something different in the south China Sea than we are here. We adopt policies that we apply globally.

We know about the EPA meetings here, we appreciate them. ICCL and the Coast Guard hosted a forum a couple of weeks ago to discuss management practices on board cruise ships, and that was solely what the forum was intended to do. It was expressed to me later that we failed in our attempt to communicate specific discharge criteria and specific discharge effluent constituents at that meeting, but that meeting was not intended to do that.

You all are probably aware of the Alaska Cruise Ship Initiative that is intended to thoroughly review cruise industry waste management and disposal practices and publicly discuss what is currently being done and what should be done to improve the situation. We are participating in this, and in all these initiatives, in a very proactive manner.

One of the things, as Kira Schmidt indicated has come out of the Alaska initiative is, that the test results indicated significant concentrations of bacteria in the wastewater, not only of cruise ships of the ICCL operators, but also smaller cruise ship operators. This was a surprise to all of us, and we are proactively looking at why that is the case. What is it with the MSDs, the marine sanitation devices, that need to be improved or are not operating within specification, if that is the case.

Part of the problem, or issue, may be that we have agreed to not discharge the gray water and black water in port, and because after this black water is processed, and because the gray water and black water are then held in holding tanks, it may act as an incubation area for the bacteria.

But in conclusion, the cruise lines, together with our sister associations, Northwest Cruise Ship Association and the Florida Caribbean Cruise Association, and the cruise vessel operators of each of these associations, we are dedicated to responsible environmental management and the protection of our natural resources. We are

- 1 committed to working in partnership with the Environmental Protection
- 2 Agency, United States Coast Guard, other federal, state and

advertised, and we're finding out why.

- 3 environmental protection agencies, and public environmental advocacy
- 4 groups such as the Centers for Marine Conservation, Ocean Advocates,
- 5 and Bluewater Network, to not only find productive solutions to the very
- 6 real issues that confront us on a daily basis, but also to reassure all
- 7 involved parties by putting to rest unfounded rumor and speculation. We need to know the answers.

At one point, Mr. Vogt said, he indicated that Bluewater Network had brought forth a problem to EPA that was being addressed. Bluewater Network identified a problem. I was pleased when Kira Schmidt stated that they brought forth their concerns. And quite frankly, I think that the actions that they requested of the EPA are right on target with regards to those concerns, and that's what we're in the process of doing in Alaska, in Florida, and here with the Coast Guard and with the EPA, is addressing those concerns to see whether or not there really is a problem. There has been no problem actually identified, other than the fact that the MSDs may not be working quite as

I think that when we get the gray water treatment systems in place, that some of these issues will actually go away, because we'll be essentially dealing with clean water.

There's another issue that I -- I don't want to blindside EPA, but we haven't provided you comments on your paper yet, your White Paper. But there are a couple of things I would like to point out, because I know that it was distributed in the back and there are some things in there that we don't necessarily agree with that we would like you all to not go away with a misperception. First and for most, we're concerned that in the White Paper it reiterated a number of comments from Bluewater, the Bluewater petition, that are not quite accurate. In particular, as an example, it was quoted that cruise ships produce and discharge approximately 11 million gallons of gray water per day, and that's totally inaccurate. Cruise ships produce and discharge around 180,000 to 230,000 of gray water and treated black water a day. So there are things like that in the paper that we believe should not be put out, and corrected at some point by the proper facts by the EPA.

Another thing that we noted, that I would not like people to go away with the wrong impression, is the paper specifically states that cruise ships have -- it says most cruise ships employ holding tanks for MSDs, even though the discussion of the MSDs, the type one, two and

- three, is accurate in the regards to type two is required over 65 feet, it
- 2 then goes on to say most cruise ships employ holding tanks. To let you
- 3 know, all of the ICCL members have type two marine sanitation devices.
- 4 And the holding tanks we have are for holding the discharge from the
- 5 MSDs, after it passes through the MSD, so that we do not have to
- 6 discharge in port. But in terms of the MSD itself, we have type two
- 7 MSDs, not holding tanks. And there were some other minor comments,
- 8 but those are two that I didn't want this public meeting to go away with
- 9 misperceptions about the cruise industry that were in that White Paper.

10 Thank you very much.

MR. VOGT: We'll reverse roles a little bit. Since you're at the podium, I'll take the outside mic.

You represent a number of companies certainly that are all foreign flagged, and I guess you have experience in 300 ports, what other countries are you dealing in that have similar concerns? Not problem, I caught that. But the concerns that have been raised through the Bluewater Network petition and the ones that we're addressing, are there other countries that have raised these, and other ports that have raised these kind of issues?

And, are there other conflicting type of rule making and regulations in those other countries?

Are we all moving toward the same kind of thing?

And following on to that is sort of my recognition that there is a very limited amount of information and data for treated black water, raw black water, gray water. What's coming out of Alaska, it seems to be original research, and it seems like there's a whole lot of other countries that would be doing the same kind of thing. So that's my question to you, are you aware of any other information from any other efforts in any other countries?

MR. THOMPSON: I know there's a number of countries that have established no discharge policies within their territorial waters. Turkey, I believe, is one; some of the Caribbean countries, at least one Caribbean country. I'm not sure of others.

The international Maritime Organization is looking at revising what they call Annex 4, which is the sewage annex, the gray water, black water annex. I don't know what kind of research is being done in other countries, the Coast Guard may be able to address that. Because the other ones that are dealing with the Annex 4 adoption issue, from my knowledge -- I agree with you that the research that's being done in Alaska seems to be original research. I am not aware of any

other research, other than the Uniform National Discharge Standards program, that is being done with regards to gray water and black water.

MR. VOGT: All right. I have one more question and then my panel is going to do the same. Ted, you can have the podium.

My question first, however.

The gray water systems which you say are being tested by a number of your members-

MR. THOMPSON: That's correct.

MR. VOGT: -- what kind of timing are you

11 looking to?

I mean, you talked to once successful they will be installed and we'll have good, clean water coming out of those discharges, what's the timing of that?

MR. THOMPSON: We have four different companies that are using essentially four different technologies in test platforms aboard their ships. My understanding is, that we're looking for some answers within the next six months or so. These systems have been on the ships for -- well, some of them as few as just a couple of months, others for as much as a year. The initial system on one of our companies did not work as advertised in the laboratory, so they had to take it off, make some modifications and put it back on.

This is cutting-edge-technology-type- stuff that we're trying to install aboard their ships to deal with large amounts of gray water/black water. This is not something where we're talking about two or three gallons in a laboratory, we're talking about 180,000 to 230,000 gallons a day.

I don't have any definite time frame, but from talking to our members, my impression is that we would rather have it done sooner than later. And if we can get it done and installed within the next year or so, we will be very pleased. But I don't know that that's going to happen, it depends on how this technology is going to work out in the field. And that's an important point, it's got to work. The thing we don't want to do is put ourselves in a further position of credibility by saying we're putting these systems aboard our ships and then they don't work, and then we're held up to ridicule, or because we've done something voluntarily and it's cost a lot of money, but we didn't do it quite right. But we want to do it as quickly as possible, but we want to do it right.

MR. VOGT: Okay, I'll just say that I'm

certainly very interested in the technology side here in terms of the technologies, the techniques that are being examined and put on board. And, you know, as you can keep us in the loop on that, I very much

appreciate the knowledge that we can get on that.

Dorn, did you have something to say?

MR. CARLSON: Yes, I had a couple of questions. You actually stole one of mine, Craig.

I just want to second what Craig said about how useful it would be for us to stay plugged in to what you're doing with the technologies, the gray water treatment technologies. So, I realize that you probably can't answer that off the top of your head.

MR. THOMPSON: My answer to that would be, we've got four different companies involved, we can certainly provide you the names of those companies and get you in touch with the people that are working on those technologies.

MR. CARLSON: Thanks. Also, I just want to thank you for taking a look at that White Paper. And the information that you just provided here about the amounts of gray water, keep it coming. And any other information in reference to the White Paper in general on discharges would be very welcomed. And I actually had one real question, which was, could I just get a reference to the legislation that you referred to that you're supporting?

MR. THOMPSON: That legislation was initiated by Senator "McKowski", and it's tacked on to the Coast Guard Authorization Bill. I don't know the exact number of it. And in terms of the number I gave you on the gray water, that comes out of the Alaska report. Again, that seems to be becoming the defining and definitive research in this whole thing.

**CAPTAIN BASEL:** I'd just like to get one point of clarification. I think, or I'll ask you, did you say that all of the ICCL members discharge all of their sewage through MSDs no matter where they are?

**MR. THOMPSON:** No, I didn't say that. I said we all have type two MSDs.

**CAPTAIN BASEL:** Okay.

MR. THOMPSON: Okay. There is one type of a type two MSD, that is essentially "amasseration" and chlorination and dilution. And the company involved in that does have valves that when at sea, and their policy is 12 miles at sea, they can bypass that system. However, the MSDs that use the aerobic process with the little bugs that

process the sewage, you pretty much have to use those all the time, otherwise those bugs die.

CAPTAIN BASEL: All right. Thank you.

MS. SCHMIDT: Ted, the 11 million gallons

was actually wastewater, not gray water, and that came from an EPA official in Alaska.

MR. THOMPSON: Wastewater or gray water, 11 million gallons, none of our ships process 11 million gallons of anything.

MS. SCHMIDT: I was just clarifying that. The federal legislation which you referred -- which you said you support is HR 820. And it's, as Ted said, the Coast Guard Authorization Act. That was introduced by Senator "McKowski" in May, and somehow has changed drastically in the interim, and just passed the senate a few weeks ago. We're very, very concerned about the way that it looks now. And I can -- I'd be happy to share with you the four page letter which we sent to all the senators on the conference committee.

Our main concern is that the outcome of this process that the EPA is undertaking in response to our petition, as well as any other agency that does any study, has to go through review prior to publication by the cruise industry. And I don't think that's appropriate. And if there is any rule making that comes out of any study, including the EPA assessment, it has to undergo scientific purview, which we also think would drastically delay the process that I think needs to happen quickly.

We have some other concerns, which I'd be happy to share with any of you at a later date. And I just had one question on the gray water analysis which you described. Is that based on actual samples of gray water from cruise ships?

MR. THOMPSON: I'm sorry, which gray water

analysis?

MS. SCHMIDT: The one that you described to us at the beginning of the –

MR. THOMPSON: The dilution study?
MS. SCHMIDT: Yeah.

MR. THOMPSON: We took the information from gray water sampling and what we thought it was going to be, some information from the "UN" study, some limited information of sampling we had done internally, previously our members had done, and preliminary returns from the Alaska study to identify that gray water stream. In fact, when that first wave came back with the one fecal

coliform at 24 million in the discharge -- we had assumed five million based on what we had learned previously. But we just recently -- part of the comments that we received back was, gee, 24 million versus five, so we went and redid those calculations for 24 million.

MS. SCHMIDT: Thank you.

MR. THOMPSON: And you're right, the "McKowski" bill does look for scientific purview of any studies or any conclusions. I don't understand why anybody would object to having some sort of scientific basis for a regulatory process.

MS. SCHMIDT: There are plenty of existing processes for which regulations must undergo, public and industry comment, and we think those are adequate.

MR. THOMPSON: I think this gentleman had a question. Maybe not.

MR. EICHENBERG: I just had a comment on the discharge of gray water. I looked through the petition and the White Paper, and it mentioned one thousand gallons of gray water per week, not per day -- one million, excuse me. So that figure was per week, not per day, one million gallons. That was in the petition, the rule making petition, and also in the White Paper. And the citation for that was the Royal Caribbean annual report, 1998.

MR. THOMPSON: Okay. I'll have to look at it again. What I read said 11 million essentially per day. But that might have been changed at some point.

MS. MCGEE: I'm Kelly Mc Gee with American Oceans Campaign. Just a point of clarification. You were mentioning the Coast Guard studies of wastewater sampling, which you were discussing, and you were talking about the fact that EPA was going to have a similar program in the Caribbean, can you elaborate on those programs?

MR. THOMPSON: Not to any great extent. After our meeting in York Town a couple of weeks ago, Mr. Vogt actually said that he thought he would have access to a research vessel, and would we, the industry, be willing to work -- enter into a research program with them to do water sampling whereby baseline samples would be taken, the ship would then pass through, and water samples would be taken after the ship passes through at certain locations and certain times, I assume. At the same time, we, of course, would have to have samplers on board the ship to sample what's being discharged and at what rate it's being discharged and where it's being discharged from the ship, and

1 things like that.

Actually, Commander Paige up in Alaska, like I said, is doing a similar thing starting next week. And we are planning, I hope, Mr. Vogt, EPA representatives, ourselves, Coast Guard, to get together on Friday actually to try to identify some overarching protocols so that those sampling results will be comparable. We don't want to do one thing in one location and something in a different location and not be able to compare the results. So that's kind of a work in process.

MS. MCGEE: So in general, your industry is amenable to sampling from your ships from different waste streams, so you're working with EPA and the Coast Guard on that?

**MR. THOMPSON:** We're already involved in a program of sampling the waste streams.

MS. MCGEE: Well, external sampling?
MR. THOMPSON: The sampling right now, if
I'm not mistaken, is sampling of the treated black water as it comes out
of the MSD, and then the gray water and treated black water as it goes
overboard. And they had to put -- the ships had to put in special
sampling "pepcock" type things to take those samples, and they did that
as close to the overboard charge as possible.

MS. MCGEE: Okay. Thank you. MR. VOGT: Thank you.

In regards to what we just mentioned as the study of -- that EPA and the Coast Guard is actually going to do something up in Alaska starting next week in terms of dispersion and measurements, actual taking measurements in the water before and after a ship passes, yes, that is something that -- it's sort of a figment of my imagination at this point.

I do have a research vessel, a monitoring platform, which we plan on taking down to the Caribbean this winter and designing. Have to design the protocols, as Ted mentioned. And I'd like to say that, I understand in Alaska, the Alaska working group has members in that working group from stakeholder representatives so that everybody can get their comments and thoughts in that, and the thing we do in the Caribbean will be similar. We want the same kind of protocol so that we have, you know, you've got cold Alaska waters versus the warm Caribbean waters. These ships in Alaska go to the Caribbean in the winter, so it's the same vessels going down, so we would like to have the sampling protocols and that kind of thing done correctly and consistently, but in doing so we need to have everybody's input in design

of the survey and that kind of thing. It's not a simple matter and it's not cheap. We will not be able to do, I'm sure, everything, but we will try to make it certainly worthwhile. And I think it's real interesting work and original work. And if we are the only country that is moving forward on this, it ought to be pretty valuable to the rest of the world, as well.

We have Pam Church, are you here? No. Okay. Then Don May, I think you're here, if you'd like to make a statement. Thank you.

MR. MAY: Maybe if Ted Thompson finds it better to come up here, I should try that too. I wanted to make a couple of comments. We really were here to find some information, but perhaps our comments can help. California Earth Corps, like Bluewater Network, really was incubated out of Earth Island, so it's no surprise that we're fully supportive and hurriedly endorse, and really want to thank Bluewater Network very, very much for bringing this petition forward and raising these issues. So, we're all indebted to you. Thank you.

We differ in that our focus has been on shore and in the near ocean waters. Although, also we have been pretty preoccupied with water issues and the Clean Water Act. And perhaps some comparison of our local inter-trenches experience under that would help you as you go forward. One is monitoring and modeling. Earth Corps does a lot of Prop 65 work in which we go out and model, prepare discharge around plants, fence, and put those data back into the model, essentially to run the model backward to see how much would have had to be generated from a point source in order to do this. And in fact, looking at diesel emissions from trucks, a moving point source, if you would, it has modeling that's very, very similar to what you might look at with a cruise ship or other vessel. So I would urge you to look at some of our models and how that works.

As a long time person who is involved over the past 50 years with discharges from publicly owned treatment works, you might look at, first of all, the similarity with MSDs, and second of all, what happened to us over all those years. It wasn't until we started learning exactly what was in an effluent that you could come up with an effective strategy for control.

So I would first of all point out to you that you can in fact put traveling monitors and instrumentation on every ship, that makes it not guesswork but gives you a good record of exactly what's been discharged. In particularly, looking at sewage, looking at the control methods that POTWs have had over ocean discharge, what has been

effective, and, first of all, of course, the Clean Water Act. When that came in it changed the idea away from parts per million and dilution into treatment, and secondary treatment in particular. So if you look at any ship as a traveling part of the U.S., so as to regulate it as you would on shore, it has an analogy with NPDES permits and that sort of thing, then certainly that holds true for a cruise ship, which carries not just cargo but, of course, people, citizens, residents and so forth.

So while Earth Corps would look at the discharges from ships in harbor, particularly hoteling discharge, as a Prop 65 issue, because it effects the residents and citizens of California directly, so you could adopt the same sort of thing with a cruise line in particular. And I would look for the same sort of treatment strategies as you found under the NPDES program, except, as I commented before, please do retain the authority within EPA and not pass it onto our regional water boards that seem to have difficulty in handling this sort of thing. So this should be an EPA controlled regulatory strategy.

In looking at gray water, likewise, we'd look at that as very similar to the current things going on on shore with storm water runoff. In fact, it is the same kind of constituents and what we call SUSMPs, standard urban storm water mitigation plans. The strategy behind SUSMPs and control of emissions -- gray water in particular -- from ships is very important. That involves retention and filtration, and slowing things down and preventing the release.

You certainly again better need to define exactly what's in gray water, because you may have a prevention -- once you know what's there you can prevent it from ever getting into the waste stream. And until you know what's there you can't really come up with a strategy to control it.

We're delighted that you've added ballast. And I would, with that -- exotics, for instance. One of the things we're heavily involved in is wetlands restoration. And after you get the land form restored in the wetland, then it's a big weeding project because what you have is an influx of exotics that come in. Almost more animal aquatic species than plants, but both. And clearly, a lot of those arrived here in the ballast of ships. Exotic species are going to be more and more a preoccupation nationally and locally. It certainly is a big one that we found, and we need to control those at the source, which we believe is a lot in the ballast. Likewise, as a part of ballast is another issue we've been involved in locally, and that has to do with the hot tank cleaners. Tank cleaners for cargo, but also cleaners that are put into ballast water.

A lot of those toxicants, that if you discharged in that kind of levels in an enclosed bay or estuary, willfully and knowledgeably, and refused to do anything about it, you can be put in jail. I don't mean to accuse anybody, Ted, but you have criminal provisions for those things. That certainly is enough to change people's attitude when it comes to compliance.

Likewise, with air emissions we refer to our concerns, particularly the hoteling emissions of ships. And while cruise line operators particularly -- and on a local level, our concern is with Carnival Cruises and its location or relocation. That's currently a big issue in front of us locally, whether it goes in front of Pier J in Long Beach or stays in Los Angeles, and the impacts of what can be done to mitigate those right now locally.

I understand that cruise ships don't use diesel or two-cycle-type emissions. If that's true categorically as well as to just Carnival, we don't know. Certainly, any information we'd appreciate. And certainly, from a regulation viewpoint, a ship that doesn't discharge "particulate" diesel like emissions should have some very different rules.

Dispersion plumes, again something we've had a lot of experience with. We're part of an 84 million dollar study down at San Onofre, and a good part of which was modeling the plume. That provides a whole lot of information that you could use in modeling what comes from a ship. And one of the things that, of course, happens -- and we talked about things that are not legal into an enclosed bay or estuary, and the answer is, well, yeah, but look at the dilution factor out in the middle of the ocean. In fact, it's not all that much different. Our modeling of dispersion plumes show that they really hang together and operate more like a drift net that wipes out life as it drifts down through the seas. We'd love to share that kind of modeling information with you.

Yes, and solid waste. There's another thing that we'd like to -- one of our associated groups down in Long Beach, "Aldaleda" Marine Research, just did a study of the Pacific "gyer", which was a fairly controlled -- quite a good supported scientific study of debris and what has been called "murdles". In fact, the very small pieces of plastic that particularly Pacific gyer makes is an incredible amount of waste. In fact, if you do the ratio of those solid wastes to plankton, which is over half, and look at the impact on filter feeding creatures, and, of course, they tend to be the biggest, the whales and the whale sharks and the mantarays, and that sort of thing. And when any filter feeder starts to

get half of its, or more of its intake in inert material, that's an enormous problem. You ought to look at "Aldaleda's" data, particularly because it has an opportunity to show a direct statistical relationship with cruise ship derived material. You can look at where those particles come from and statistically determine what their origin is; and as it particularly refers to cruise ships and all other carriers out there, gives you a way to fractionate out who's responsible for what.

Talked about fuel oil and bilge water, and particularly that has some Prop 65 implications within the mile limit. But off-shore you might look at Prop 65's type of requirements and enforcement strategies as being applicable in this case. In fact, let me conclude with that. There is on shore what's called the Community Right to Know Act and Toxic Release Inventory, so that any citizen, group of citizens or city, can pull up to see exactly what it is that's being carried and what it is that's being discharged and who's carrying it and the complete status of it. That's a very important thing not only for regulation, but for the communities to know. And I would certainly like to see that, and I think that sort of thing falls squarely within the regulations in your regulatory authority. With that, thank you very much for your comments. 

MR. VOGT: All right. Dorn.

MR. CARLSON: Dorn Carlson. I have just one question that again really isn't a question. But I would like to take you up on your offer to share the details of that plume study that you did.

MR. MAY: Absolutely.

MR. CARLSON: If you'd just pull up one of those things in the back that has the hard copies of the posters on it, it's got our address and E-mail and phone number and everything in there, and then we can start a dialogue going. Thanks a lot.

MR. THOMPSON: I'd like to ask one question -- Ted Thompson. I'd like to ask one question and make one point. First of all, you mention this study of the little plastic whatever it is and implied that you have evidence that the majority of that comes from cruise ships. That's what I got from what you said; is that true or not?

MR. MAY: No. Let me correct that then. What I said was, it's readily identifiable just grossly looking at it. What it is, it's cruise ship contribution. Some of it is very ambiguous, some of it is not. It might be worthwhile to take that data and go through it and see what the statistical relationship is, not only with cruise ship

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flotsam, polyethylene, polypropylene, stuff that's been tossed overboard, released somehow, but also from a lot of other ships, and even the source of manufacturer because you can fingerprint it.

MR. THOMPSON: If you would provide at least me with that information. Our members have adopted a new discharge policy for that type of thing, and if we have anybody that's getting our stuff overboard, they'd want to know about it. So if you'd share that with me, I'd appreciate it.

The second thing I'd like to point out is, a couple times it's been mentioned that we could or should discharge black water, gray water to municipal sewer systems. There are very, very, very few locations within the United States where any ship can do that.

MR. MAY: I'd like to respond to that. That's exactly the reason that gray water, and even the secondary treated black water, should be discharged through your treatment system. It wasn't until we had a clean water act and until the secondary treatment requirement was imposed on POPWs, that if you're going to have bugs in their working on it you have to have source control and you have to be sure that the things that are discharged through your MSD is in fact non-toxic, and that requires you to neutralize, to otherwise treat or handle material before it goes into your MSD. So I would certainly emulate the appropriate sections of the Clean Water Act requiring secondary treatment, and looking for that to be incorporated into ship board systems.

MR. THOMPSON: And if I could just make one response to that. In fact, part of our waste treatment management calls for source segregation, and all of our members have adopted that. So we are controlling what goes into the gray water, what goes into the black water. Albeit, yes, there were some hazardous chemicals a number of years ago apparently in one gray water, all of our members have gone through their systems and segregated those things out. And we are working with the Coast Guard, by the way, to come up with an oversight inspection plan for assuring that. I mean we're saying that, but you need to be assured that we're doing that. And we are working with the Coast Guard, per their inspection officers, to be able to do that.

MR. VOGT: Okay. Thank you. That runs through my list of people who said they wanted to make a statement. Is there anyone we have missed?

MR. ZWICKER: I didn't sign up because I didn't plan on making a statement today, but I'd like to after hearing

some of the testimony. 1

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My name is Stan Zwicker, I'm an environmental consultant with over 30 years in environmental control. I've served in the past as an advisor to congress on the Clean Air Act, and that's just a way of qualification. I am not employed by anybody in the cruise ship industry. I have been, over the last five years, intimately involved in the ISO 14,000 environmental management systems, which, as you know, is a voluntary program, and one that I find has been extremely successful in positive, proactive industries developing programs that work.

I heard a few comments today about the voluntary programs not working in terms of the certified programs that they have; that's not my experience. I've worked in both major industries, manufacturing, construction; I'm also working currently with a hotel chain developing an environmental management system for them, and it really works. By establishing the aspects and impacts, and understanding what your interactions with the environment are, and then developing programs and goals and objectives to improve performance, I think industry involved alone in a voluntary basis can develop programs positively and do a good job. There are checks and balances in there that allow for and require public input into the process. It requires audits, it requires management review and a plan due check/act cycle for review in a closed book system that really works. And I don't want this group to go away thinking that regulation is the only way to go. Command and control has gotten us a long way, but I think the wave of the future is in the environmental management system. I would urge you while you do your deliberations, to seriously consider using a system there. It doesn't have to be ISO 14,000, but an environmental management system, I believe, truly is the way to go for the future. And that's my comment. Thank you.

> **MR. VOGT:** Is there questions or commentors? First the panel gets a shot at it. Any comments? I guess your name first.

MR. ZWICKER: Stan Zwicker, Z-w-i-c-k-e-r. I'm serving on the Region 9's Merit Partnership Steering Committee, so those of you in Region 9 might have some knowledge of that program. MR. MAY: This is Don May. My comment is, the apparent reason ISO 14,000 and the rest of the (unintelligible)

regulations work is because you're enforced by the marketplace. You can't market your goods in many places, especially many countries,

unless you have some ISO recognition. That same philosophy could

drive some of this cooperative work particularly through your environmental task force, and if that's the case we'd like to be included.

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MR. ZWICKER: That's a good point. But what I've also found in my experience is, that when companies get involved in the process, there's a tremendous learning curve and a tremendous teamwork and spirit that builds up, and companies do the right thing. I know the cruise industry tends to do the right thing. They've got a lot of good studies going on now, I think they've got some policies in place, and all of that can be brought within the context of an environmental management system program, which will give the results that everybody's looking for.

QUESTION: I'd kind of like to respond to that by saying that the "gyer" study that was done in the middle of the Pacific by the "Aldaleda" Marine Institute, it's quite astounding. That "gyer" is about the size of (unintelligible), and the floating trash on the top is very visible. It's floating plastic. And as it has broken down through the top of the ocean down to the bottom, it breaks up to little pieces.

If you were a diver and you were to look through that water, it would be very similar to a Christmas tree ornament that you would shake up and you would see plastic floating around. The bottom of the ocean is -- I believe it's seven to one plastic to plankton. And a few of the examples were shown that when they pulled up jellies, the jellies who absorb critters to survive, how are full of plastic. So some of these things that you are talking about, these regulations that are in place and are working, I don't think they seem to be working very well. And that plastic, that trash, is already there. And most of it, I'd say 99.9 percent of it, I understand, is nautical in nature.

So the comment that Mr. Walsh from Carnival Cruise brought up earlier about the trash in the ocean, that Carnival is just a small contribution, yeah, that's probably true, but it's a big problem. And all of the other industries that are represented in this room have to take a look at the consequences of what we're doing on a continuing basis. And the public, we all own the oceans, and it's pretty trashed. And when this gentleman, I can't recall your name, who talked about the six months to a year before your processes may be working, there's a possibility that, what happens if it doesn't? Are we stuck with a continuing -- the pollution that's ongoing? And, at what point do we say you don't get to be in business anymore because your pollution is over the top? And there's not much room left for the continuing pollution

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And I'd like you to take a look at that three mile limit, and possibly you should double that. If you can't stop it, double it, okay? Or maybe even triple it. Thank you.

MR. VOGT: Okay. On the three mile limit, that certainly takes the act of congress. But, of course.

QUESTION: We've got time.

MR. VOGT: That's right. I'm not saying it's not a simple matter for this group to do that, but that is certainly one of the things that we have heard before.

Ted, did you have something to say?

MR. THOMPSON: I would like to just briefly respond.

Dumping plastics into the ocean is strictly forbidden. I won't say it doesn't still happen, it should not, and I don't believe it still happens from cruise ships. There was an awful lot of plastics that were discharged into the ocean before MARPOL Annex 5 went into effect, it did not apply to government ships. You know, there's an awful lot of ships in the world. Cruise ships, the type that our members operate, make up maybe one and a quarter to one and a half percent of the total shipping in the world, and we have some very strict controls.

As far as your comment on gray water is concerned, what if it doesn't happen? We think it's going to happen. These are technologies that are cutting edge. We're working to make it happen. But I will tell you that again, nobody here, neither you nor anybody else here has shown anybody a scientific study that shows that the gray water has been detrimental at this point. I'm not saying that it doesn't, I'm saying that there isn't any study that we're responding to. We're working very proactively with the EPA and the Coast Guard and the states, and you all, but we're shooting at a moving target. You're telling us that you may want us to go out of business, and yet we're one-and-a-half percent of the shipping industry. This is not a cruise industry issue that you're talking about. Every one of these ships plying the oceans of the world have people on them that produce the human waste. We carry a few more people, a lot more people, but we also have secondary treatment systems on board, and we're a very small percentage of the maritime industry.

Now, if MSDs are not working properly on cruise ships -- and I've been told they weren't operating properly on the smaller U.S. flag ships either. You've got a whole bunch of other maritime industry

ships out there that have these MSDs also, and some of them don't -- quite frankly, some of them have holding tanks, some of them don't. If you're going to change the regulations, let's look at the whole industry, because the cruise industry is a very small portion of it.

MR. VOGT: Okay. Can we go to Kira first?

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MS. SCHMIDT: I just wanted to reiterate that the reason we're focusing on cruise ships is because they are different than other ships. As you said, Ted, they carry several thousand more people than any other kind of ships. So I'll just say that again.

The other thing is, the UNDS study is the one study that we can site which does say that gray water has the potential to cause adverse and environmental effects. So I'll just reiterate that.

MR. VOGT: Which study was that?
MS. SCHMIDT: The Uniform National

Discharge Standards study.

And you mentioned that there were mechanisms whereby there can be public input into ISO certification processes, and I was just wondering if you could explain that a little more.

MR. ZWICKER: The ISO 14,000 EMS requirements include 17 elements, 51 requirements. Among them are requirements for consideration of state covered opinion interests, ways to communicate with the external community. That's all got to be part of a plan. If it's going to be certified, you have to meet each one of those requirements.

Every time I've worked on one we've worked very closely to make sure that we do get the public input, we do create a mechanism whereby concerned parties are notified, stakeholders are advised, and develop the aspects and impacts, and then programs based on the input from those people. So it does work. It's right in that system to make it work.

MR. MAY: Don May. My comment as well is, there's a big difference in ratios. And the ratio of passengers, 1200 or so on a cruise ship to eight to ten on a VLCC super tanker is a big difference. Likewise, the difference in terms of gallons of discharge that -- as 60 times difference in two folks, maybe two orders of magnitude along the way. All of this points out the need for monitoring to see exactly what it is you're dealing with. You have to know that before you know how you're going to control it. And we do indeed know exactly what the toxicity of different discharges are, that's well

established from on-shore things. It's a simple extrapolation of that to what kinds of densities of that particular toxicant you're going to see at a particular place in the ocean, and that you can find out directly from monitoring. Thank you.

MR. VOGT: Okay. One more comment, but you have to use the microphone.

MR. WALSH: I do have a question. Again I can understand the ratio aspect that you see, I think, on this coast. Typically, for California there might be three cruise ships that operate out of here on a regular basis. Three large cruise ships. My question would be on fishing boats, on recreational boats. I know in the state of Florida that we have close to 800,000 recreational craft registered, and those boats don't have type two MSDs. Now, just on your typical nice long weekend, a Saturday or Sunday, 800,000 boats, give it three or four people per boat, and they go out for eight to ten hours, I don't think they're holding it. I don't know what they're doing with it, but I'm sure it's not being treated. So if you talk about ratios and size, you're going again after the wrong people. You're going after a very small percentage of something that is being treated and is being monitored. If you want to go after the larger constituent you've got to take a look at the entire population. And that population, unfortunately, is very large in the recreational boating, fishing, day boats.

MR. VOGT: Okay. Thank you. I think we're winding down in this conversation. As you note, our role here in the panel is to ask questions and to get clarification. And you have not heard us, I hope not, issue too many opinions because we are formulating those as we go through here and trying to collect the information too.

Number one, do the assessment. And that's looking at characteristics of water and wastewater and waste that's coming from cruise ships. What are we doing now on policies and regulations? What are those options? How well we're doing and what should we do. So that's where we're going.

I think this conversation and information has, I think, been really useful. We're a little low key here today, there's nobody yelling and screaming at each other, so that's good. Not necessarily as much fun as it could be, but we're pretty mature at this point. And I've been through a number of these type of hearings where there's been very, very difficult issues. Not to say this one is not. But I think this one -- I'll give you an opinion here that there seems to be a willingness to at least

search out to find some of the assessment questions of what it is we're dealing with and what are the options that we have before us and what is the right way for it. And I do hope we can work together in doing that. And if you saw the process that we're going through: public information hearings, do a draft assessment, put it out for stakeholder review, develop recommendations, discuss that, have a dialogue with stakeholders -- that we all can come to the same conclusions, that's the right way forward.

So with that, I remind you that we're going to do this again tonight at 6:00 o'clock. I do not want to have the same statements again this evening. I would like to take new statements, but not the same ones. So I don't know if we have -- do we have anyone who signed up for this evening to speak? No? Okay. It may be a very quiet evening. But it is meant to be for the people that have other jobs that are not involved in the industry, they can come and speak in the evenings after their day jobs have been taken care of. So with that, any comments from the panel? Yes.

MR. CARLSON: I just wanted to say that when you get home, if you remember something that you forgot to say here, or you heard something that you need to go back and look up before you respond to, keep the information that told you where you could send information to us, if you would. If you've thrown that away already, the comment cards on the back table also have a mailing address as well as an E-mail address. And please send us other information if you have it. We have a website, too, that's in the federal register notice, I think. What is it? I don't remember. Isn't it cruise-ships-at-EPA-dot-gov.

MR. VOGT: Cruise-dot-ships-at- EPA-dot-gov. If nothing else, that's the way you can get to us with those comments, thoughts, recommendations, data, please. And thanks for your kind attention, and I appreciate you all being here. We're done.

(WHEREUPON, the Meeting was adjourned and then reconvened.)

MR. VOGT: Excuse me. Hello. How about having a seat and we'll reconvene. I know you're interested. We'll get the drum roll going in a moment. Pam Chueh will be speaking to us, leading us in a little more entertainment for the afternoon. Introduce yourself, please. Thank you.

MS. CHUEH: Thank you, Craig. I don't have an opening joke. Sorry to interrupt your break this afternoon, but I truly do appreciate you letting me reconvene because this means the difference between me getting back to Sacramento tonight at 2:00 in the morning or

10:00 o'clock at night. So, I do truly appreciate it.

My name is Pam Chueh, and I'm here representing California assembly member George Nakano of the 53rd Assembly District. The 53rd Assembly District represents a significant portion of the coastline of Los Angeles County, stretching from the northern end of the Palos Verdes Peninsula, just a little bit north of here, through the coastal cities of Torrance, Redondo Beach, Manhattan Beach, Hermosa Beach, El Segundo, and portions of Los Angeles.

I would first like to thank the U.S. EPA for hosting this public hearing today in Los Angeles, as well as the responsiveness they've shown to the issue of cruise ship discharge. This is most certainly an important issue of importance to the state of California, and I'm here to convey that.

Earlier this year we introduced legislation to more closely examine the existing environmental practices in waste streams of cruise ships out of concern of the following: the series of pollution incidents that have taken place, the large volumes of waste generated by cruise ships and discharged into the ocean, and the inadequate oversight and regulation of cruise ship waste management. This, coupled with explosive growth of the cruise industry in California, made it timely for the California legislature to take up this issue.

Under Assembly Bill 2746, CAL EPA would convene the cruise ship environmental task force, consisting of relevant state agencies which currently oversee cruise ship waste streams, including the State Water Resources Board, the Department of Fish and game, Department of Toxic Substances Control, Integrated Waste Management Board, the State Lands Commission, and the Air Resources Board. The U.S. Coast Guard shall also be invited to participate as a member of the task force.

The task force will gather information necessary to evaluate the environmental practices and waste streams of the cruise ship, allowing for both public and industry input in the process. CAL EPA, with information gathered by the task force, will prepare and submit a report to the legislature in 2003. The report will include a review of existing environmental practices, review and analysis of waste release off-loaded from vessels in California, identification of inadequacies in current reporting requirements, an evaluation of the potential impacts of waste, our water quality, marine environment, air quality, human health, and recommendations for appropriate actions to be taken by the Coast Guard and state agencies.

AB 2746 has passed out of both houses of the legislature,

with broad support from both environmental community and the cruise industry, and is now before the governor for consideration.

With the cruise industry growing at a rate of 67 percent in California, in light of the most recent case of illegal dumping into the port of San Francisco by Royal Caribbean Cruise lines, the California legislature welcomes and applauds the EPA's efforts in examining the various issues raised here today, and looks forward to working with the various stakeholders in these efforts. Thank you. Told you it wouldn't take long.

MR. VOGT: Any questions from the panel? You have to come up and use the mic.

MR. CARLSON: Two questions. Dorn Carlson, two questions. The time frame for the study and the report, and does the report or the task force make any recommendations, or will they make any recommendations for EPA action?

MS. CHUEH: If the bill is signed into law by the governor, it would be enacted January 1st of 2001, at which time CAL EPA would convene the various members of the task force. They will take probably 2001 and 2002 to gather the information necessary, that includes requesting the information they consider to be pertinent from the cruise ships. And the cruise ships have agreed to submit such documents. Probably, I would think, in 2003 is when they would start preparing the report, and in June 2003 is when it's due out.

As the bill is currently written, the report is supposed to include recommendations for actions as I outlined. It's not specifically referencing actions for U.S. EPA, but it does say actions for a Coast Guard and other agencies. So, certainly.

Any other questions?

MR. WALSH: Ma'am, the allegation you made about Royal Caribbean dumping in San Francisco, was there any testing done of the substance that supposedly or allegedly was dumped?

MS. CHUEH: I'm not aware of that. I think probably someone else in the audience, maybe Kira from the Bluewater Network, might be able to respond to that.

MS. SCHMIDT: Unfortunately, the passengers who witnessed the dumping weren't aware of how to go about reporting it. I guess that wasn't adequately publicized on the ship. That's definitely one of the things we're looking at in figuring out what to do about it. So they didn't report it, and therefore didn't get any samples at the time.

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                             MR. WALSH: So the allegation at this time is
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     strictly speculation on two passengers having seen something leave the
     ship? That's what this allegation that you're making as a member of
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     George Nakano's staff in this public hearing, that Royal Caribbean did
     this based on two witnesses of technical ability from 70 feet away from
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     where this discharge took place?
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                             MS. CHUEH: Well, my understanding is that
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     the U.S. EPA and the Department of Justice have launched a Criminal
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     investigation into this. And if that was good enough for them, that was
     good enough for us to site the case.
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                             MR. WALSH: So we have an investigation
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     ongoing?
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                             MS. CHUEH: That's my understanding.
                             MR. WHIPPLE: This is Frank Whipple with
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     the Coast Guard. The investigation is being led by the Coast Guard with
     the Department of Justice assistance. It was determined, since it was a
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     water discharge from a ship, that it was best the Coast Guard lead the
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     investigation. So it is currently under investigation in San Francisco.
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                             MS. CHUEH: Thank you. Any other
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     questions?
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                             QUESTION: I have a question for Captain
     Whipple. When do you expect the results of that investigation?
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                             MR. WHIPPLE: I'll apologize in the beginning
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     because I don't have a date for that. It will depend on when the final
     witness statements are taken. They have interviewed witnesses, other
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     passengers off the ship, so it is ongoing. It's anyone's guess right now
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     as to how long that will take. But they typically take a month or two
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28
     anyway. And this just started. It came to light here, I don't know, it
     may be a month ago when this actually -- three months ago? Three
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     weeks ago. So again it's very new information. The investigation was
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     -- there's been a number of meetings between the EPA, Coast Guard,
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     DOJ, FBI investigators. I know they've had a number of meetings,
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     they've already interviewed some witnesses, and -- again probably in a
     month or two.
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                             MS. CHUEH: Thank you very much.
                             MR. VOGT: I have one question, like, very
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     simple. Do you think the governor is going to sign it?
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                             MS. CHUEH: We're very hopeful. I'm not
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     going to try to second-guess the governor.
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                             MR. VOGT: Okay. Thank you very much. We
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EPA Public Meeting #12227 9/6/00 conclude once more. (WHEREUPON, the Meeting was concluded at 3:20 p.m.) **CAPTION** The Meeting in the matter, on the date, and at the time and place set out on the title page hereof. It was requested that the Meeting be taken by the reporter and that same be reduced to typewritten form. 

| 1          | EPA PUBLIC MEETING   |
|------------|--|
| 2          | OCEAN DISCHARGE CRITERIA   |
| 3          | September 6, 2000  |
| 4          | <u>6:10 p.m.</u>   |
| 5          |  |
| 6          | MR. MCCARBERY: Good evening. My name   |
| 7          | is Dennis McCarbery. I'm a legislative representative for the Port of        |
| 8          | Los Angeles, and I'd like to say welcome to                                  |
| 9          | this EPA hearing. The Port of Los Angeles, as you know, is home to           |
| L O        | the humbly named World Cruise Center over here, and we are the largest       |
| 1          | cruise operator center on the West Coast, so obviously this is the right     |
| L2         | place to have this hearing for this area. I'd like to welcome all of you     |
| L 3        | to the port of Los Angeles. If you get a chance, take a look at our          |
| L <b>4</b> | facilities, they're some of the best in the world for a port. We'd like to   |
| L5         | welcome the EPA and thank you for your interest in this subject, we all      |
| L6         | want to have a cleaner environment. So welcome to the Port of Los            |
| L7         | Angeles. Thank you.  |
| 18         | MR. VOGT: And thank you, Dennis, for   |
| L9         | providing these facilities for us.   |
| 20         | Hi, my name is Craig Vogt. A number of you were in the                       |
| 21         | meeting this afternoon, several of you were not. I think we had a very       |
| 22         | good discussion this afternoon and received a number of good                 |
| 23         | presentations and suggestions, and even a little, I wouldn't call it debate, |
| 24         | but discussion, anyway. This evening we have no one signed up to make        |
| 25         | a statement; however, you're welcome to add or clarify earlier               |
| 26         | statements. I will give my overhead presentation briefly, I will ask that    |
| 27         | Ted Thompson from ICCL, the International Council of Cruise Lines, I'll      |
| 28         | ask him to summarize his statement from earlier today, just for your         |
| 29         | information, as well as Kira Schmidt from the Bluewater Network, to          |
| 30         | summarize her statement so that you can understand some of the               |
| 31         | positions that were expressed earlier today.                                 |
| 32         | My name is Craig Vogt. I am with EPA, Washington DC                          |
| 33         | headquarters. I am the deputy director of the oceans and coastal             |
| 34         | protection division. I've been with EPA for a long time, since 1971, so      |
| 35         | I've experienced a number of different operations and hearings and           |
| 36         | regulatory actions, and non-regulatory actions as well. I would like to      |
| 37         | have the panel introduce themselves, and then I would like the audience      |
| 88         | to tell us who you are, as well.   |
| 39         | MR. OTA: I'm Allen Ota with the Ocean  |

Dumping Program in the Region 9 office located in San Francisco, with

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1 the Environment Protection Agency.

MR. CARLSON: I'm Dorn Carlson, also with the Environmental Protection Agency. I'm out of headquarters in Washington DC. I work for Craig Vogt. I work on cruise ships as well as uniform national discharge standards for Armed Forces vessels.

MR. CHARLTON: I'm Tom Charlton. I'm with EPA. I'm in the office of wastewater management, which works with the NPDES program.

CAPTAIN BASEL: Captain Brian Basel, chief of the Office of Compliance for Marine Safety and Environmental Protection, Coast Guard headquarters in Washington DC.

(WHEREUPON, the audience introduces themselves.)

MR. VOGT: Well, we will be informal. If you have questions, comments, thoughts, you may interrupt me. But I do request that you go to the microphone and say who you are and who you're with for our hearing reporter. Since we are recording this, definitely it is helpful for us.

This is the first in a series of meetings, this is part two of today. We're going to Juneau and Miami this week and next week to try to collect information. We are in the information collection stage on cruise ship wastewater discharge, waste management policies and procedures, what they are, how they've worked.

We are facing a number of threats. Our oceans are under some stress from a number of threats. This is a list of some of those threats, it's certainly not meant to be comprehensive in its nature. There are point sources, non-point source discharges, we're aware of these. Marine debris, we heard about that from one of the speakers today, such things as storm water runoff, coastal development, increasing numbers and introductions of non-native species. This is, I think, a real serious problem that we need to address, and we are addressing. There is no simple answer there. It's a very tough one to get our hands around. Damage caused by commercial and recreational use, some think that the cruise ships would contribute to that potential concern.

In terms of what's happening to our coastal waters today, here's a partial list of some trends that we've seen. Harmful algal blooms are on the rise -- red tides, green tides, brown tides -- some of these have human health implications, beach closures as a result.

Hypoxia, that means a lack of oxygen in the water. Dead zone in the gulf of Mexico, some sunks. Every summer about 7,000 square miles, coming from as a result of a number of factors, primarily

the discharges into the Mississippi River coming into the Gulf of Mexico. Too much fertilizer, too many organics, the right conditions cause algal blooms, they die, takes oxygen from the water, takes life from the water. No simple, easily solved solutions are apparent.

Beaches. We have a trend in beaches. Many more beaches have been closed as of late. Now, is that because the water quality is going down or the reporting and monitoring is better? We're not sure, but we do see a many number of beaches are closed.

Coral reefs, of course. We have a separate coral reef task force within the U.S. government, set up by Executive Order, to study coral reefs, impacts on coral reefs, and there are serious problems there. And fish advisories are in many locations along our coast.

Now, the question that would be in my mind if I was in the audience is, what's that got to do with cruise ships? Maybe nothing. But cruise vessels are floating cities and they have a number of discharges, and they're something -- you can have up to 4 or 5,000 people on a cruise ship. These discharges are well known as discharges, the characteristics are not so well known.

The bilge water I think we know more about then some would say the gray water. And sewage sounds like something we ought to know about, but actually we're finding very little is available. Incinerator ash, solid wastes and hazardous materials, as well as air emissions.

Now, this is a public information hearing. We are collecting information to develop a response to a petition that EPA has received from the Bluewater Network. And the petition asks us to assess cruise ship waste streams and the potential for the volume of all the waste -- not only volume but the characteristics, quality, quantity, what's coming off of the cruise ships, what do we have in the way of existing regulations, policies, procedures; how are we doing in terms of managing those wastes and protecting the environment.

The petition also asks us to review the potential environmental impacts and assess environmental impacts of cruise ship discharges. The petition asks for looking at certain options for monitoring and record keeping and reporting. I mentioned this afternoon that this is, I think, one petition that the agency has received that took a measured approach to requesting the agency to take action. And essentially it asks us to collect information, evaluate that information, make recommendation with a view toward regulating cruise ship discharges. And one of the considerations is repealing the existing

NPDES permit system exclusion from the permit system. It also asks us to consider regulating gray water, as well as the concerns about hazardous materials: what hazardous materials are generated on board ships? How are they handled? How are they monitored? Cradle to grave consideration.

Other actions that EPA has ongoing that are related to this activity, we did receive a petition to regulate ballast water under the NPDES permit program. We received that in January of '99, we are very late in our response. The response was originally targeted for a year ago, and we hopefully will have that out this fall, possibly at the same time our draft assessment comes out on the Bluewater petition.

In addition to that, we are working on, with the Navy -there was an amendment to Section 312 of the Clean Water Act requiring
EPA and the Navy to assess discharge standards for vessels of the Armed
Forces. And the first was to identify what discharges are potentially
harmful to the environment, and then to assess the treatment technologies
and available technologies that could reduce the pollutants and then set
standards. And we've identified which discharges need to be looked at.
We are, I said, three or four years away, or is it two or three years away
from completion? Two or three at this point. Trust me.

Then, another area that we're involved in, the Executive Order came out in June of this year on marine protected areas, and EPA is charged with revising our ocean discharge criteria for wastewater discharges through pipes into marine waters. That also requires us to take a look to setting -- take a look, but set specific sites in the ocean that would require special protection. We call it special ocean sites. And it would be for any discharges to the ocean in those areas, additional requirements would be required. And that is not for cruise vessels. That is for discharges from, say, floating fish factories or from municipal sewage treatment plants or industries that are discharging into ocean waters.

Now, a few words about our existing regulations, and this is EPA's standards primarily that I'll talk about. Under Section 312 of the Clean Water Act, EPA has set regulations. We have set standards for marine sanitation devices that are required to be on vessels. If they have an installed potty, you're required to have a marine sanitation device. And it's a treatment device or it's a holding tank. There's three types, types one, two and three. And I'll mention that types one and two are essentially grinders and chlorinators and discharge. Well, actually type two is a little bit more than that, I think. But they're tougher

standards for type two. And type three is a holding tank. Now, EPA sets the standards for MSDs, we did this about 20 years ago. And one of the options we'll talk about briefly is, do those need to be taken another look at and revised?

The Coast Guard has major responsibilities for marine sanitation devices in terms of setting the rules for design and construction/installation and operation, certification and inspection. So they are really the major players here in terms of marine sanitation devices, in terms of if they are installed and working.

EPA Standards for marine sanitation devices, type one is a thousand colonies per fecal coliform for 100 MLs, and then no floating solids, no floating visible solids. Type two is a little tougher standard, it's 200 fecal colonies per 100 MLs, and then a standard of 150 milligrams per liter. And type three is the holding tank.

Now, one of the options that is available to states are to set no discharge zones for sewage. But there are some, I guess -- I don't know if you'd call it stringent criteria. I'm not sure how well it works for cruise ships, but it's just something we need to keep in mind. States can apply to EPA to set a no discharge zone, and the criteria include a couple that are pretty important. One is some ecologically important reason to protect that waterway, and the other is that there has to be adequate pump-out facilities for the sewage from the vessels. The key points here on this slide are that Section 312 applies only out to three miles and enforcement is primarily by the Coast Guard.

In terms of discharges from vessels, I mentioned the sewage is controlled through Section 312. Gray water and other discharges incidental to the operation of a vessel are excluded from the normal NPDES permit program. And that was done back in 1973 when we were faced with difficult choices in setting regulations for primarily point sources such as municipal plants, as well as industrial facilities. It was thought at the time that cruise ships did not present a serious matter, and we needed to focus our resources upon point sources, as well as non-point sources.

Other key statutes, and I won't go through these, that deal with some aspect of cruise ship discharges, wastewater. The RCRA, Resource Conservation and Recovery Act, deals with solid waste and hazardous materials. The Marine Protection, Research and Sanctuaries Act is the Ocean Dumping Act. So if you transport anything out to see and dump it, or transport it for the purpose of dumping, it's controlled under that act. The Shore Protection Act sets up a permit program,

works with the Coast Guard for vessels that are transporting waste. Waste haulers. And then, the act to prevent pollution from ships has a number of different aspects to it, including oil and noxious substances, garbage and plastics. And that is the Coast Guard's primary authorization.

Now, EPA is well known as a regulatory agency, and we have done -- the words used this afternoon were many command and control type programs, and they have served us well over many years. I'd say over the last 10 years, however, we have moved more into some non-regulatory programs, which have shown some very good progress. This is a list of a number of those, and I won't go through each one. But essentially, trying to look at a facility, a type of facility and the regulations that are required. And each one of these facilities, be it a port authority or be it a municipality, is an individual case. When we write national regulations and states adopt those, some of those characteristics are not well dealt with.

Some of these non-regulatory programs look to see what the common sense approach would be to solve some of those environmental threats. For example, green ports is an activity that we have working with the American Association of Port Authorities. We've provided a grant to AAPA, and they developed an environmental handbook which documents the environmental concerns within a port and identifies the types of actions that has successfully dealt with those environmental problems, such as storm waters, such as bulk cargo storage outside instead of on the roof, and the like.

Golf and the environment is one that my wetlands office has dealt with. And that is, if you develop golf courses, do it in an environmental friendly manner. And it's a voluntary partnership between the federal government and the golf industry.

I guess this may be obvious, but here's some options that we're considering in looking to the cruise ship industry. And we are non-committal on any of these. We do not have our minds made up. We are gathering the information. We certainly have regulatory options in front of us in terms of looking at the NPDES permit program, and that would mean repealing the exclusion, exemption of incidental discharges somehow. That, of course, might impact other vessels as well as cruise ships. Revision of the Clean Water Act 312 regulations, that's a good possibility, I'd say, because they're 20 years old. Maybe we've learned something since then, and maybe we'll hear something more during these meetings.

ISM, International Safety Management code, environmental management systems, would look towards more partnerships, voluntary. And they're not necessarily all voluntary, as I think Ted will try to explain to us in your statement.

Next steps, we are, as I said, gathering the information, and we will do an assessment. We've said to the Bluewater Network we would provide a report back to them maybe by the end of the month. I think we're going to be late. I'm not exactly sure what deadline I set for ourselves, but we're going to miss it, whatever it is. Sorry. But we definitely plan on getting something out in October, and it will be an assessment of what information we have at that point in time. We will provide that to stakeholders, review that, and then work with Coast Guard in formulating recommendations, where should we be going, go public with a public dialogue -- and you can read the rest.

So that is all I will say at this point. If you have any questions, I'm open to questions. And if not, I'll ask -- Ted, could you summarize your remarks of this afternoon?

MR. THOMPSON: Sure. Go back up there? MR. VOGT: Yes, you certainly may.

MR. THOMPSON: Once again I'd like to, on behalf of all the members of the International Council of Cruise Lines, thank the EPA for holding this hearing and other hearings. At least I think we're thanking you for it. It's going to be a whirlwind trip of the country.

My name is Ted Thompson. I'm the executive vice president of the International Council of Cruise Lines; it's an Arlington based industry trade association. We represent 16 cruise operators that carry approximately 85 percent of the passengers in the North American market. Several of our members are dominant companies in the Alaskan trade, three of them have ships operating out of California, several more ships from other companies call at California ports when they're repositioning from Alaska to the Caribbean, and vice versa, or traveling around the world. Our members operate vessels that call at over 300 ports around the globe, which makes us truly an international industry.

Our ICCL vessels are not U.S. flagged, they are not necessarily foreign flagged. If you go to a different country, the United States flag is a foreign flag. We are non-U.S. flag. We flag with major countries such as the United Kingdom, Norway, Italy, the Netherlands, and we also flag with some off-shore registries.

Even though we do not fly the U.S. flag, our vessels, while

operating in U.S. waters, must comply with all U.S. environmental laws, just as we must comply with the environmental laws of whatever country in whose waters we're operating.

Additionally, all of our members must meet the international regulations for both environmental protection and for safety of life at sea at all times. These protocol set the benchmark for environmental safety standards and safety standards throughout the world. In fact, these international conventions, such as SOLAS, MARPOL and STCW, the United States has adopted into the fabric of the U.S. maritime regulatory system.

Because we are a company that is dependent on carrying passengers to beautiful locations where we want them to experience nature's bounty, we have been active in issuing industry guidelines that our members have all agreed to. The framework for these guidelines is to fully comply with applicable laws and regulations, maintain cooperative relationships with the regulatory community, such as we're doing now, design chips to be environmental friendly -- and I will go into that a little more later -- to embrace new technology, conserve resources through purchasing strategies and product management; minimize waste generated and maximize reuse and recycling; optimize energy efficiency through conservation and management; manage wastewater discharges; educate staff, guest and community.

In keeping with designing ships to be environmental friendly and embracing new technology, and along the lines of what we're talking about here this evening, you should know that four of our ICCL members have committed approximately a million dollars apiece to field testing gray water treatment systems. And when these test systems are fully developed and proven, they're expected to remove sediment and impurities from gray water streams to the point that the output is essentially clean water that can be reused on board for technical reasons, or discharged overboard.

Other things that our companies are looking into to make the ships more environmentally friendly and embrace new technologies is, plasma incineration that would be more efficient and effective; printing, copying and photo systems that do not use hazardous materials or have a hazardous waste as their byproduct.

In response to a question of what impact gray water and treated black water discharges have on the environment, ICCL contracted a study with M. Rosenblatt and Son to evaluate the dispersion of wastewater and any suspended solids and entrained substances into the

sea that are being discharged from cruise ships. We found from these calculations that the dilution factors, depending on the speed of the ship and the assumptions made, will run anywhere from 44,000 to 111,000, just based on a simple dispersion analysis. If you take into account wake effect, tidal and current actions, we believe that these components will be diluted by another factor of 1,000 to possibly even 100,000. So within the confines of the available data and assumptions made, we believe that it provides a strong indication that the concentrations of diluted constituents will be well below specified water quality criteria.

Last December Senator "Mc Kowski" introduced some legislation that would assure the American public that the cruise industry is indeed operating its vessels in the manner in which the industry has stated. We support this legislation, and, in fact, that legislation essentially would require us to do what we're already doing on a voluntary basis. And in line with assuring the American public that we're doing what we say we're doing, these guidelines that we have adopted are incorporated into our mandatory ship safety management system, SMS, that's required by the International Safety Management code. By so incorporating it, our guidelines in these systems, that means that they're subject to internal audit, they're subject to external audit, and they're subject to oversight inspections by any port state entity of the ports that we go to. And particularly, the United States Coast Guard here in the United States has the authority to oversight the ISM code, the safety management system on board our ships. And Captain Basel may want to address that or answer any questions if you have any.

So we appreciate and welcome the opportunity to publicly demonstrate that we're adhering to these practices, and the industry is responsible and cares about the environment. In fact, we don't know of any other segment of the maritime industry that is willing and able to meet these types of standards, quite frankly.

Alaska has a cruise ship initiative that many of you know about. The goal is to thoroughly review the cruise industry's waste management disposal practices, and to publicly discuss what is currently being done and what should be done to improve the situation. The cruise industry, through our sister association, the North West Cruise Ship Association, with our support, has embraced the opportunity to participate in this forum.

Let me digress here for a minute. And not only from Alaska, but with the federal government, what we're looking at is, having

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done this waste dispersion analysis, the ICCL membership is going to be and will be participating with the Coast Guard and the EPA in a water sampling project, whereby samples will be taken of the ocean before a cruise ship goes by, after it goes by, comparative analysis. Samples will be taken on board the ships as they are discharging, as they go by the area where we're sampling, so we'll know what was being discharged at what rate, etcetera.

So why do we mention all these projects here at a public meeting? The reason being is, because it's important to realize that the issues of the individual states that they've been dealing with, and we've been dealing with directly, relate to this EPA international program. And we feel it's important to have national, if not global, regulations that we can implement at whatever port we're calling and whatever state, or indeed, whatever country or port around the world. When we adopt our policies and train them into the safety management system aboard the ships, that means those policies apply worldwide, not just in the United States.

The information developed by the State of Alaska in the cruise ship initiative will provide vital information on waste stream volumes and components. In fact, this afternoon we were discussing that this was really original research up in Alaska as to how much of the liquid waste streams is being produced on board a cruise ship each day or each week, and what is the fate of those waste streams. In fact, the laboratory testing program up there has already provided significant and unexpected results. These test results indicate significant concentrations of bacteria in the wastewater, not only on the large cruise ships that ICCL operates, but also on the smaller cruise ship vessels of the U.S. flagged fleet. And these issues of the marine sanitation devices and whether or not they actually are operating as the manufacturers claim they are, are being proactively addressed by both fleets. But this indicates to us that possibly this is an issue for the entire marine industry and not just the cruise ships. But in conclusion, I'd say that the International Council of Cruise Lines, together with its sister associations, the NWCA, which I mentioned earlier, the Florida Caribbean Cruise Association, cruise vessel operators of each, are dedicated to responsible environmental management and protection of our natural resources. That's why we are meeting here, that's why we are meeting with the Florida regulators, the Alaska regulators. We are all interested in finding productive solutions to very real issues that confront us on a daily basis.

That's it. That's a summary.

MR. VOGT: That's good.

MR. THOMPSON: Questions?

MR. VOGT: All right. Thank you.

Kira, do you want to come here?

MS. SCHMIDT: Hi, my name is Kira Schmidt, and I'm a campaign director with the Bluewater Network. We're a national environmental organization based in San Francisco. We protect public waters, lands and ecosystems, and fight damage caused by motorized recreation, oil and shipping industry practices, and other types of marine pollution.

Bluewater launched its cruise ship campaign late last year in response to the media attention and the public concern regarding the Royal Caribbean case that was settled last year.

Some of the major concerns that Bluewater has regarding cruise ships are the series of pollution incidents by cruise ships, the severity and intentionality of some of these incidents, the large volumes of waste that cruise ships generate on and discharge into the seas, the rapid growth in the number and size of cruise ships, and inadequate oversight and regulation of cruise ship waste management; and therefore, inadequate enforcement and deterrence of pollution by cruise ships. In an effort to respond to these concerns, Bluewater authored a petition to the Environmental Protection Agency, urging them to identify and take regulatory action on measures to address pollution by cruise ships.

Bluewater and 53 other environmental organizations submitted the petition to EPA on March 17th of this year. It highlights loopholes and gaps in federal regulations for various cruise ship waste streams, and makes a number of recommendations for EPA action, which Craig described to us earlier, and which I won't repeat.

The cruise ship waste streams that we address in our petition are sewage, gray water, hazardous waste, solid waste, oily bilge water, and now air emissions. And we have a number of specific recommendations for each of those waste streams, which I also won't go into detail about.

As Craig explained, there are options for regulations that might emerge from the EPA assessment that they're currently undertaking. And those include changes to federal regulations and/or how they're implemented, government/private sector partnerships, or some combination of the two. We heard just a little while ago about some of the government cruise industry partnerships that are currently

under way and that are voluntary.

The Memorandum of Understanding between the Florida Department of Environmental Protection and the cruise industry which was signed in March of this year, that was the result of dialogue over how to address the pattern of violations of hazardous waste management regulations by cruise ships in the state of Florida. And the Alaska cruise ship initiative, which was launched by the Alaska Department of Environmental Conservation also due to concerns regarding illegal discharges from cruise ships and their growing presence in Alaskan waters.

A couple comments about these in general. In the case of Florida, there was zero public input or involvement in the negotiation of the Memorandum of Understanding. And neither of these initiatives, the voluntary initiatives, have any means of enforcement; and since they've been entered into, violations and other problems have persisted. The hazardous waste management regulations are still not clarified in the state of Florida with regard to cruise ship hazardous waste management. And in Alaska, as we just heard, the results of initial rounds of sampling of gray water and sewage has shown extremely high levels of bacteria, which is obviously an issue of concern.

We also heard a little bit about other voluntary programs that cruise companies employ to certify compliance with environmental laws, including classification society, certification, and internal and external audits. And there are existing regulatory frameworks overseen by relevant agencies in flag states, and the Coast Guard's control verification/examination program. And I guess I'll just mention here that the Royal Caribbean ships that were found guilty of routinely and knowingly discharging oil and hazardous waste had ISO certification and had been certified by their class societies and flag states, but none of these mechanisms detected the violations in advance, nor took action after the federal/criminal investigation brought them to light. And with regard to the Coast Guard inspection program, I refer you to a report issued by the General Accounting Office earlier this year which highlights several shortcomings with the Coast Guard's program and with their ability to detect or resolve marine pollution violations.

So in summary, voluntary efforts by the cruise industry to improve its environmental performance and to engage in dialogue with regulators are commendable, and we certainly recognize that, and we think they are steps in the right direction. However, as the voluntary initiatives in Alaska and Florida unfold, they are proving unsatisfactory,

as problems and violations of various regulations by cruise ships continue, they lack mechanisms for oversight and enforcement, and thus deterrence, and, as I mentioned, in Florida, for any manner of public involvement.

Neither the existing Coast Guard flag state regulatory regime, nor voluntary programs such as those described, are adequate to abate pollution from cruise ships. The supporting evidence is mounting in the GAO report that I just mentioned, in the ongoing violations, and in the results of monitoring and sampling in Alaska that is currently going on.

These programs must be complemented by new and improved regulatory measures that empower environmental agencies to monitor and enforce standards and provide industry with disincentives to pollute.

We believe that the Environmental Protection Agency, because its sole mission is to protect human health and to safeguard our environment, has a crucial role to play, along with concerned citizens, in helping to ensure that cruise industry activities do not negatively impact the environment and human health. Thank you.

MR. WALSH: You mention ongoing violations, could you give me what those violations are?

MS. SCHMIDT: Yeah. In the case of Florida, I guess the issue which is trying to be resolved is, I guess two things. The status of generator, whether a ship or a company is a conditionally exempt small quantity generator or a large quantity generator. That issue apparently is still unresolved and --

MR. WALSH: And your information is from

the DEP?

MS. SCHMIDT: Yes.

MR. WALSH: Well, the DEP, last week, stated unequivocally, to both the Coast Guard and the Region 4 EPA, that they've agreed that it's the ship.

MS. SCHMIDT: It's the ship?

MR. WALSH: Right.

MS. SCHMIDT: Okay. So does that make it a

conditionally exempt small quantity generator?

MR. WALSH: No, no, no. Just that if a number is to be assigned, it's to be assigned to the ship, but that all EPA regulations would then stem from that. So if you're less than 220 pounds, you're conditionally exempt. If you're more, then you're a small

quantity. And if you're larger, then you go to the large quantity

## EPA Public Meeting #12227 9/6/00 1 generator. But I'm talking about the violations that you're alluding to. 2. MS. SCHMIDT: Right. I was forwarded some 3 manifests which claimed that the, I guess, ship was a conditionally 4 exempt, small quantity generator, when, in fact, the amount's listed right there on the manifests were indicating that it was a large quantity 5 6 generator. 7 MR. WALSH: So you were forwarded 8 manifests, uniform hazardous waste manifests? 9 MS. SCHMIDT: I believe that's what they were, yeah. 10 MR. WALSH: And you were forwarded them 11 on an ongoing investigation? 12 13 MS. SCHMIDT: Excuse me? MR. WALSH: You were forwarded manifests 14 pertaining to an ongoing investigation? 15 MS. SCHMIDT: No. 16 MR. WALSH: But you made the allegation that 17 18 these are continuing violations? 19 MS. SCHMIDT: I don't know the status of 20 them at this point. 21 MR. WALSH: Could you tell me who forwarded those to you? 22 23 MS. SCHMIDT: I don't think I can do that, 24 no? MR. WALSH: Thank you. 25 QUESTION: I would like to make just a couple 26 of comments. I'm not going to ask a question. It was indicated that the 27 28 internal and external audits were a voluntary nature, that is not true. The audits are required by the international safety management code, 29 which became mandatory on July the 1st, 1998. The violations that were 30 noted, particularly with note to Royal Caribbean, occurred prior to that. 31 To my knowledge, there are no ongoing violations of that nature after 32 the international safety management code came into effect. And there 33 was a statement made that there was no enforcement mechanisms, but we 34 certainly seem to have a lot of, at least alleged violations. And to me, 35 36 no enforcement means no violations. 37 So those two statements seem to be a little bit opposed. I 38 mean there's either enforcement and there's violations, or there's no

enforcement and there's no violations. That's the only comment I have.

MS. SCHMIDT: Just to respond to that, the

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- 1 enforcement mechanisms are within existing regulations which were
- 2 being violated. The actual voluntary agreements, the MOU and the
- 3 Alaska Cruise Ship Initiative, have no enforcement mechanisms of their

4 own.

5 MR. WALSH: Again another question on some

6 follow-up.

As far as violation of law, what exactly was the violation of

8 law?

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9 **MS. SCHMIDT:** I'll have to look.

MR. WALSH: Well, I believe you stated just a

second ago that it was a misrepresentation on the status of generator.

MS. SCHMIDT: That was my understanding.

MR. WALSH: So was it claiming small

14 quantity?

MS. SCHMIDT: Conditional exempt.

MR. WALSH: Conditional exempt. But it had

a number?

MS. SCHMIDT: I couldn't tell you.

MR. VOGT: Okay. Thank you. Any

additional questions or comments? Panel?

CAPTAIN BASEL: Actually, if I could I'd like to make a comment. Not so much as a member of the panel, but obviously as a person who has the control verification program and who had the GAO report, who actually received the GAO report on behalf of the Coast Guard. And, as with other programs, the Coast Guard is a federal agency. We have our own external auditors, and we do welcome

those auditors, that is a GAO.

Obviously, with any audit sometimes there are shortcomings in a program which are pointed out. And in this case, we took that GAO report and obviously we'll be rolling into making some changes into the programs. But one of the things that I -- we didn't take that report as a damning type of program, we took it as to say exactly -- and I forget the exact words in there. Basically it said the Coast Guard should work a little closer with industry and start looking ahead into the gray and the black water discharge area. And that's what we are doing here today, as well as with some other programs that we're working on.

It also made some comments about doing an addition of overflights on the coast to take a look at some of the discharges of ships based on some of the publicized incidents. And again we are doing that.

40 That's an easy fix for us.

A couple of other things in there that may not be apparent to most people, it talked about the lack of action taken on behalf of some of the flag states, and that many of the cases are not being forwarded. As we got into that, some of the reasons for that, it was actually a very simple reason: that we had issued a directive in 1992 that said, essentially, that our own fine, civil penalties, and other programs, have become extremely more effective than they have in the past, and that these are deemed to be adequate in some cases. So this is something that the GAO, for whatever reason, did not get into during that. And we're addressing those comments with the GAO.

Just to touch base a little bit on the CVE program, our control verification program, it is a very, and I'll say robust program. We go on the ships every quarter, spend quite a bit of time.

Obviously, our focus is on safety, safety of passengers, and in some cases environmental protection. I shouldn't say some cases. In every case it's partly that, part of the time is spent on that. However, as the GAO report says, we could spend more time on that. When looking at that, obviously it's a case of resource implication to that. And we're looking at what is the proper balance between safety and pollution, lacking additional resources, which we'll be asking for. So the intent here is to maintain a robust program, in everything we do step out ahead, as we can, and maintain a good, safe and environmentally excellent program. Thank you.

MR. VOGT: All right. There is no penalty for finishing early, we've heard that before. And I think we're coming to the end of this meeting. Unless we have any questions or comments further, I'll say that both this afternoon's and this evening's session, we've heard some similar things, of course, this evening as we heard this afternoon, but we're going to have differences of opinion on where we're going here. But first stage, number one is collecting the facts. And I hope we can all get together, as we're trying to do now, and collect the information. What are the characteristics? What are we doing now in terms of implementation of our rules and regulations? And then, where are we going?

So, over this next week we will be certainly collecting as much information as we can. And certainly we're open for beyond this week in terms of information collection, data. There's much information being assembled and collected. And as Ted mentioned, some original research is being done in Alaska that is going to help us understand the situation better.

EPA Public Meeting #12227 9/6/00 Obviously, this last week we heard some, I guess, unanticipated news that some of the numbers in the wastewater discharges were much higher than we had thought they would be. So with that, I think it's a challenge for us all to kind of put our heads together and figure out what to do with this new information and what programs we have, and how well we can address whatever we find from what's going on in Alaska, as well as what we'll be doing in some of the work that we'll do down in the Caribbean this winter. So, with that, I want to say thank you for coming. Thank you to the Port of Los Angeles for hosting us. And with that, greetings and good will. And I will say that we will try and keep our website up to date as best we can in terms of any new happenings, new events, or any reports that are available. So thank you and goodnight. (WHEREUPON, the Meeting was concluded at 7:05 p.m.) 

The Meeting in the matter, on the date, and at the time and place set out

**CAPTION** 

on the title page hereof.

It was requested that the Meeting be taken by the reporter and that same be reduced to typewritten form.