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PUBLIC HEARING

before

SENATE SPECIAL COMMITTEE TO STUDY COASTAL AND OCEAN POLLUTION

Testimony concerning the various sources of ocean pollution,
including sludge and dredge spoil dumping, vessel refuse,
and other ocean dumping practices

January 7, 1987
City Hall
Long Branch, New Jersey

MEMBERS OF COMMITTEE PRESENT:

Senator Frank Pallone, Jr., Chairman
Senator Richard Van Wagner
Senator S. Thomas Gagliano

ALSO PRESENT:

Raymond E. Cantor
Office of Legislative Services
Aide, Senate Special Committee to Study
Coastal and Ocean Pollution

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New Jersey State Legislature

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December 12, 1986

NOTICE OF A PUBLIC HEARING

The Senate Special Committee to Study Coastal and Ocean Pollution will hold a public hearing at 10:00 A.M. on Wednesday, January 7, 1987, at City Hall in Long Branch, New Jersey.

The Committee will be taking testimony concerning the various sources of ocean pollution including sludge and dredge spoil dumping, vessel refuse and other ocean dumping practices.

Anyone wishing to testify should contact Raymond Cantor or Patricia Cane, Committee Aides, at (609) 292-7676.

Directions from Trenton: Take I-195 east to the Parkway north. Take exit 105 off the Parkway to Route 36 east. At the 7th traffic light (the light after the K-Mart) make a right onto Broadway. City Hall is about 1 to 1 1/2 miles down Broadway on the right hand side (just past the railroad tracks). The telephone number for City Hall is (201) 222-7000.



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SENATOR FRANK PALLONE, JR. (Chairman): I want to initially apologize for the fact that we have been delayed 45 minutes. There is a good reason for it. We had a report this morning from the Monmouth County Health Department, basically analyzing the results of their investigation of the Long Branch pier and amusement area pollution problem. As you may know, last summer, many of the beaches in Long Branch in the vicinity of the amusement pier were, in fact, closed because of pollution problems, and have been closed ever since. The county has been conducting an investigation for the last three or four months, and they made their conclusions today, and subsequently had a press conference. It just so happened that that coincided with our hearing this morning, and I and some of the other people involved had to participate in that, as well as the fact that the reporters -- many of the reporters who are covering this hearing -- were the same reporters who were covering that. That is the reason for the delay, and I do apologize.

I want to start off by welcoming everybody here this morning for this public hearing. As you know, it is a public hearing of the Senate Special Committee to Study Coastal and Ocean Pollution. Initially, I want to introduce some of the people who are up here at the podium. I am Senator Frank Pallone, from this area, the Chairman of the Committee. To my extreme left is Senator Tom Gagliano, who is also from Monmouth County. We also have the Office of Legislative Services aide, Ray Cantor, who is to my left. Ray has been assigned to this Committee. To my right is Gina Cioffi, who is my legislative aide. We expect Senator Van Wagner, who is also a member of the Committee, to be here a little later, and he is planning on staying for the rest of the day.

This is the third in a series of public hearings this Committee has held throughout the State. Although this Committee does not report out bills and is primarily

information gathering, to date this Committee can claim a number of accomplishments, which I would just like to briefly get into. Our first hearing, which was held in July of last year, focused on the problem of beach closings. Although the sources of pollution which cause beaches to close are many and diverse, and are often hard to locate, the Committee learned that one problem previously unaddressed is that of fecal coliform entering the water from storm sewers due to illegal connections to those storm sewers, leaking sewage pipes, and also from other non-point sources. So, in effect, our first hearing dealt with the non-point sources.

The identification of this problem led to the introduction of legislation designed to map and monitor storm sewers, in order to determine where a problem exists and to correct the problem when one is found. That legislation, if enacted, will be the first law in the nation to identify and prevent the introduction of non-point sources of pollution from entering. The legislation could go a long way toward preventing the introduction of pollutants into our waters and in keeping our beaches open and safe to swim from. Other bills to increase penalties imposed on the local level against polluters were also introduced as a result of the first hearing.

It is interesting that that legislation and that non-point source problem we identified at our first hearing, in effect, is one of the sources of pollution that was cited today by the County Health Department in Long Branch. They identified that part of the problem with the beach closings in Long Branch which has been investigated is, in fact, a storm drain from Ocean Boulevard, which is a new roadway that was built in the Long Branch area within the last couple of years. That fecal matter, in effect, is being carried from that storm drain, and is one of the sources of our pollution problem. So, with that legislation, I think we were hitting on something that is very close to home.

At our second hearing, held in Woodbridge, New Jersey, back in September, we focused on the problem of floatables in the ocean and, in particular, on the debris emanating from Fresh Kills Landfill in Staten Island. The debris from the landfill, which included all types of plastics, garbage, and even hospital wastes, washed up on Woodbridge beaches daily. As a result of that hearing, and the ensuing publicity, the Attorney General of New Jersey and the Interstate Sanitation Commission have joined Woodbridge in its first legal fight against the City of New York. Hopefully, this legal action marks the beginning of the end of Woodbridge's long struggle to keep garbage from washing up on their beaches.

At that second hearing in September, we also learned that the State of New York had lifted a building moratorium on construction which was not connected to a sewage system. This would have led to the construction of thousands of dwellings and other buildings being built which would discharge raw sewage into the Arthur Kill and adjacent waters. Once again, the publicity that this Committee brought to the situation and the efforts from individual legislators, including Senator Gagliano and myself, led the New York State Department of Environmental Conservation to reconsider its decision and to reimpose the moratorium.

I should also mention that a bill to identify the sources of floatables in the ocean has been introduced as a result of the second public hearing. And I believe Senator Gagliano has introduced a bill dealing with the targeting, to try to find the source of a lot of those floatables as well.

With all of that in mind, I would now turn to the focus of today's public hearing -- offshort sources of ocean dumping. As we have learned from our previous hearings, the sources of ocean pollution emanating from the land are many. The same is true for offshore pollution sources. Hundreds of thousands of tons of sewage sludge, from New Jersey alone, are

dumped just 12 miles off our coast. In fact, over half of the sludge produced in New Jersey is ocean dumped. An even greater amount of sludge is dumped by New York. This 12-mile site, as you know, will soon be phased out. There has been talk about that for the last couple of years. Although it is to be phased out, the dumping is going to continue at the site 106 miles off the New Jersey coast. The ocean disposal of this sludge raises serious concerns over its effects on the ocean's ecosystem. The 12-mile site is already known as a "dead zone." Do we know enough about the long-term environmental effects of ocean sludge dumping, especially at the 106-mile site? Are we creating an environmental time bomb which will explode on future generations? We need to have concrete answers before we, as a matter of policy, decide to continue to ocean dump our sludge. Many of the speakers today will be addressing that ocean dumping issue at the sludge site -- the dumping of municipal sewage sludge.

Aside from municipal sludge disposal, there is the problem of dredge spoil dumping just six miles off the New Jersey coast -- the so-called "mud dump site." Due to the toxic substances frequently found in dredge spoil, serious concerns arise by its ocean dumping. Other ocean dumping practices are also of vital concern. These include the dumping of acids off our coast, the burning of wood in barges, vessel pollution, and the incineration of hazardous waste at sea. In a previous public hearing, we heard testimony from a fisherman, who stated that he encountered numerous partially burned pieces of wood floating in the ocean, particularly in the South Monmouth area. The danger to boaters is obvious, as is the harm to our commercial and recreational fishing industry. We expect to hear comments today from EPA, the Army Corps of Engineers, and the Coast Guard on this problem.

Vessel pollution is also an important source of ocean pollution, yet difficult to control. Aside from large vessels,

there are countless pleasure boaters and commercial fishermen who contribute to this problem. Although this pollution source is not as well-known as others, it is a substantial source of floatables in the ocean which kill marine mammals and birds, as well as damage ocean going vessels. A pending treaty will seek to regulate this pollution source. We expect to hear from the Coast Guard on the prospects of this treaty. We also need to determine what this State can do to prevent vessel source pollution.

There may very well be other important pollution sources which we should know about. There also may be implementable solutions to some or more of these problems. That is why we are holding this hearing today. By gathering together the regulatory agencies responsible for the control of ocean pollution and private citizens who have an interest in this area, we can hopefully think of new solutions to some of these problems. As has been demonstrated, merely informing the public about these issues often leads to the resolution of some problems.

I know this is going to be a long day, because we have many speakers, and I like the fact that it is going to be a long day because I think there is a lot that needs to be said. However, before we introduce any of the speakers, I would like to have the other member of this Committee who is here today, Senator Gagliano, who I must say has been here at every hearing, and who has participated fully and has been here from beginning to end of every hearing we have had so far-- Tom, I want to thank you for your total participation in the Committee process.

SENATOR GAGLIANO: Thank you very much, Frank. Ladies and gentlemen, I, too, want to welcome you to our Committee hearing. As Senator Pallone has said, this Committee does not report out legislation. In effect, what we do is try to find out information which may lead to legislation, which would then go through other committees. I think that's good.

As legislators, especially as legislators here in New Jersey where we have such a concentration of people and businesses -- and we are the most densely populated state in the nation -- one of the most important things we can do is to bring to the attention of the people -- of the public -- what are actually the sources of pollution, and how those sources affect their everyday lives.

Too often -- and it's too bad -- people do not understand how seriously their lives are affected by pollution from so many sources, especially that pollution which finds its way into our waters. I guess that is just about every form of pollution we can imagine. I hope the testimony today, as testimony has in the past about pollution sources, will help to educate all of us on the problem, and help us all to focus on ways to end pollution once and for all.

I think, personally -- and we heard some very telling testimony at the prior hearings-- I just feel disgusted about the amount of pollution that is allowed to enter our waters. So often -- too often, actually -- government not only allows it, but encourages it. I really feel that as we go along with this Committee, and as other legislators and other public officials and private citizens consider these problems, there should be an outpouring of support for the end of pollution in our waters. I feel very strongly about it, and I think if those of you who are here had heard some of the testimony at prior hearings, you would know what we are talking about.

So, I am anxious to listen to the testimony. Frank, I am not sure that I can stay all day, because I had other things scheduled for this afternoon. But I will stay as long as I can. Thank you.

SENATOR PALLONE: Thank you, Senator Gagliano. We just have arriving -- you haven't missed anything except our two speeches -- Senator Van Wagner, who is also from Monmouth County. Would you like to make a comment, Senator?

SENATOR VAN WAGNER: Well, I would just like to wish everybody a Happy New Year. It seems ironic that we are opening the new year with a discussion that has probably been taking place now for the last 15 years, at least, that I can remember. I congratulate Senator Pallone, and others in this area, for continuing to keep the pressure on this issue in terms of our desire to protect the vital resource that belongs not only to those of us who live here along the shore, but to the people of this State; in fact, the people of the region.

I hope these hearings will be fruitful. I hope we can come forward with some solutions, not just a restatement of the problems. Again, I appreciate being here. Like Senator Gagliano, I don't know how long I may stay, but I would remind the Chairman that at the first hearing in Trenton, it was I who stayed. But I look forward to hearing your testimony and being enlightened further on this very important issue. Thank you.

SENATOR PALLONE: Thank you, Senator Van Wagner. There was one thing I did want to mention before we started. I wanted to mention this collectively to the Committee to see whether or not you think it is a good idea. If you remember, last April we were called upon to participate in a bistate pollution committee by the New York Legislature -- an equivalent committee such as this one in New York State. The main reason for the request at the time, at the committee hearing which was held at the World Trade Center, was because of their concern about air pollution sources coming from New Jersey. At the conclusion of that hearing, it was indicated that they would be willing to come over to New Jersey and have a similar type committee meeting and public hearing the next year, where we could focus on ocean pollution problems, primarily emanating from New York City.

What I was going to suggest is that we, as a Committee, send off a letter -- a request to those same individuals in the New York State Legislature, and ask that we

reconvene that bistate committee to discuss -- basically to focus in on the ocean pollution problems.

SENATOR VAN WAGNER: We have had a bistate committee dating back to 1976, which I served on, along with Assemblymen Kozloski and Villane from this area, Mr. Koppell -- who I think remains in the New York Legislature -- and several others. I would hope, again, that we would collectively-- I agree with you. I think it would be a good idea to continue that, but I hope we would collectively, this time, begin to seek solutions, and begin to seek methods of collateral legislation, if necessary, to protect both interests, rather than arguing about how much we pollute their air in return for their polluting our water.

SENATOR PALLONE: I agree. I think perhaps, you know, rather than phrasing it that we are just discussing ocean pollution problems, we should simply say we want to discuss bistate concerns relating to pollution, along the lines of what we discussed last year, and should send a letter off to try to set that up sometime within the next couple of months.

SENATOR GAGLIANO: Fine.

SENATOR PALLONE: All right, thank you very much. We will now start right in with the testimony. I know some people have indicated that they can't stay too long, so I am going to try to take that into consideration as you have indicated. I would like to start out, however, with our State Department of Environmental Protection initially. We have Mr. William Librizzi here from the State DEP, who is Director of Policy and Planning. Let me just say before Bill starts, I know some of you have indicated to me that you can't stay too long. If anyone has not indicated that -- what their time constraints are -- please tell Gina over here, or Ray. Come up here and tell us, if you want to, because we don't want anyone leaving without giving their testimony.

Bill, what we may do-- I know we have a lot of questions to ask you, so we may cut you off and have you come back an hour later or something, so we can include some of the people who can't stay, if that is okay.

W I L L I A M L I B R I Z Z I: That would be fine.

SENATOR PALLONE: Thank you.

MR. LIBRIZZI: In fact, what I might do is just make some general comments, and be prepared to come back for some specific questions, because I'm sure you want to hear from the Federal government relative to the issue you are discussing today.

SENATOR PALLONE: I should indicate to you that Chris Daggett, who, as you know, is the Regional Administrator for the EPA, will not be here until a little later, so we can't start off with him. (discussion about microphones at this point)

SENATOR GAGLIANO: Do you mean that Frank gave that long speech and nobody heard it?

SENATOR PALLONE: Oh, they didn't want to hear it. Go ahead, Bill.

MR. LIBRIZZI: My name is Bill Librizzi. I am the Director of Policy and Planning for the New Jersey State Department of Environmental Protection. I have with me Larry Schmidt, who is part of our Planning Group within that office. Larry has been involved for many years with the ocean issue, and I think he brings to this discussion a lot of experience and a lot of history in the process.

We appreciate the opportunity to share with you some of our perspectives on the ocean disposal issue. Let me start out by repeating a statement I made at the hearing on the Fresh Kills' floatable issue; that is the fact that protecting our natural resource -- the ocean -- is a high priority for Commissioner Dewling. His goal is, and has been, to continue to address the ocean by strengthening and expanding our focus

on improving the quality of our nearby coastal waters and estuaries. This effort is important because we hear, and we share, public concerns regarding the quality of our coastal waters, and we want to do what is necessary to address those concerns and to protect that natural resource that is so important to the State of New Jersey.

Obviously, we recognize that we share the responsibility and the authority to do that with the Federal government and with our neighbors in New York State. Your thought about meeting again with the New York State legislators is a step involving the other side of the river, in approaching the task of protecting our natural resources.

Basically, let me first present to you what we might define as what our expanded focus is relative to the ocean. They tend to be short-term objectives, which are going to be very productive, in my opinion. Then I will discuss more specifically the issue of ocean dumping, dredge materials dumping, and vessel pollution.

In the short-term, we obviously are going to continue our vigilance on ensuring that existing wastewater treatment facilities along the coastal area, and throughout the State, for that matter, are operated at the efficiencies they are designed for. We will continue to move forward to ensure that construction of wastewater treatment plants which require upgrading are carried out as early as possible. During the spring, as we discussed at the last hearing, we will be doing a float study, in an attempt to identify the sources of floatables, where the sources end up on our beaches, and under what circumstances they end up on our beaches.

Our plan should be complete within the next two months. Actually, we have already initiated efforts in regard to that plan by starting a literature search relative to what work has already been done regarding the complex hydrological conditions of the ocean, as well as identification of where

those sources might be. This literature search will certainly help us to find the kind of work we would need to do to verify and confirm the sources we suspect for floatables, as well as scope out for us the actual kind of floatable study we would want to carry out in the field. So, that process is moving forward, and we should be doing field activities sometime this spring.

Next summer, or spring, we will be conducting a health study, with participation from the Department of Health, the New Jersey Medical School, and the New Jersey Medical Society. We will also be working with the Save Our Shores people, who have been raising the issue of public health relative to swimming in the ocean. We will be working with them in scoping out the study that we would like to conduct this summer. It will be a focused study to help us to respond on the public's concern regarding the health implications associated with swimming in the ocean. The study is presently being developed by our medical experts, who will provide, as part of the study objectives, a scientifically based information base we can use in finding out whether or not we do have health concerns regarding swimming in the ocean, and what the magnitude of that problem might be.

If the study indicates that a broader study, or a longer term study is necessary, DEP is ready to address this challenge as necessary, and as determined by our health experts after we have completed this initial study.

Another aspect of our focus is geared toward initiating an outreach program, which will do a couple of things: It will improve communications with local governments, with State people who are interested, environmental groups, and with the Federal and State governments, relative to the activities that are affecting and impacting the protection of our natural resources; education, in terms of what we are doing and in terms of what can be done at all levels; and finally,

involvement of local governments and the public with regard to the whole process. We think the outreach program is important, and is going to be very beneficial to us all, because we are all moving toward the same goals, and we all have a role to play relative to achieving those goals.

Some of the things we can look at specifically in terms of the outreach program, which will be geared toward our coastal communities-- We can present the results of our 1986 study. That study was the first comprehensive program we conducted in New Jersey. In fact, it may be the first comprehensive program conducted throughout the country. We need to present the results of that study, and we need to present them in such a way that people will know what the results of that study were. We expect the report to be prepared and completed during this month, and hopefully one or two months thereafter we can go out and discuss the results of that study with the affected communities.

We should also take that opportunity to review with them what the plans are for FY '87, and how they again can participate with us. We will continue this effort. It is an important effort that should be continued. We should also continue to discuss with them our plans dealing with ocean protection as we proceed in completing the development and conducting the plans we have under way.

An important part of this initiative, we think, is to also expand local awareness relative to the roles local governments can play relative to protecting the near shore and the ocean resources. An example would be the non-point source. Senator, you commented about the meeting you had with Long Branch -- a storm sewer problem. These activities, we think, can be carried out at the local level, to enhance and improve the control of those kinds of situations. We would like to start the process of working with local governments in enhancing their awareness of what they can do -- infrastructure

studies and mappings of their storm sewer programs -- of their storm sewer networks, are some areas; catch basin cleaning, and so forth. In other words, best management practices can be applied at the local level in dealing with storm sewer discharges.

Also, in terms of vessel pollution, there will be some discussion, I'm sure, about the recreational vessel and its potential contribution to vessel pollution. Awareness at the local level of that vessel pollution source can, in fact, be helpful in trying to eliminate that source, or at least minimize that source of contamination to our resources.

I think from the average program -- the feedback side of it -- in my opinion, we could begin to understand what needs the local governments might have relative to working toward protecting the ocean resource. Understanding their needs more definitively will allow us at the State level to respond to those needs. So, there is not only an information exchange from the perspective of this initiative, but there is also a feedback I think we can gain in terms of beginning to address the needs we might have at the local level.

SENATOR VAN WAGNER: To cover a quick question, in case I am not here later, would you just give me a report in writing based on these studies you have done in terms of monitoring, detection, and response? Okay? If you would cover those three areas, and give some specific incidents of how and where it has occurred-- If you would give me that in writing -- or give it to the Committee -- I would appreciate it -- just to see it.

MR. LIBRIZZI: Let me see if I understand.

SENATOR VAN WAGNER: How many incidents, how often you detected them, what steps you are taking in the monitoring if, in effect, they led to the detection, and what your response was? Okay?

MR. LIBRIZZI: That probably would be best answered by the 1986 report.

SENATOR VAN WAGNER: In writing.

MR. LIBRIZZI: You've got it, yes.

Now, turning, obviously, to the more longer term activities and the subject of the hearing today -- which is basically ocean dumping of municipal sludges, dredge materials, and vessel pollution -- let me just comment briefly. I think, if it is acceptable to the Committee, I might just not present any background information in terms of these activities, but suggest some thoughts in terms of what we should be looking at. I think you will probably hear, as you proceed, especially from the Federal government, a more detailed background of these activities, since they are the primary regulators of them.

SENATOR PALLONE: Bill, the only thing I did want, if you could-- Can you give us something as far as what the State is doing? Maybe you do plan to get into that, but I wanted to specifically have you outline what is being done with regard to the sludge plan, which I gather is primarily a State concern. In other words, what does the sludge plan for the State of New Jersey involve? What will the effects be on ocean dumping? There is a concern, I think, that it is too much oriented toward the ocean dumping option, and not enough toward land-based alternatives, which some of the environmental groups have raised; also, DEP's role in the wood burning site. I know you are taking a new role now in terms of enforcement.

MR. LIBRIZZI: Right.

SENATOR PALLONE: I know you want to comment on what the Feds should be doing, but I would like to know specifically what the State is doing in those two areas.

MR. LIBRIZZI: Before I get into some details very briefly, another aspect of the focus, which I was going to conclude with, is, in 1984, the Department prepared an ocean management strategy. A lot of activity has taken place since that time. It is very appropriate for that strategy to be updated. We are in the process of upgrading that strategy. I

think it is useful from several perspectives. It establishes the policy and the priority for the protection of the ocean resource. It will enable us, based upon the policy and priority established by the strategy -- which I believe should have outside input as we develop the strategy-- It establishes, through the policy and the priority, the mechanisms, I believe, for us to work more closely with the Federal government, the State of New York, the City of New York, in attacking the problem in a coordinated and comprehensive fashion.

The Commissioner has, in fact, met with his counterpart from New York State, to discuss very specifically how we can work together for--

SENATOR VAN WAGNER: Maybe there is a more direct way to ask you. For example, can you tell me now, in response to Senator Pallone's question, how much less sludge you now dump in the ocean, compared to '84 and '85, and how effective your redirection of the sludge -- I know you have redirected a lot of sludge -- how effective you think that has been, and whether or not that is, in effect, what you are going to have to continue to do, or are you going to have to start to talk more seriously about incineration, and how far into that are you going?

MR. LIBRIZZI: Let me just make one comment--

SENATOR VAN WAGNER: So we could have a time line. We could say, "Well, we were here in '84, we were here in '86, and this is where we are going to be in '88."

MR. LIBRIZZI: Let me just comment -- and then, Larry, you can pick up, because I think you are ready to comment also-- One of the things I would suggest is, the search for alternatives to ocean dumping should certainly continue with regard to getting sludge out of the ocean. I think--

SENATOR VAN WAGNER: How many sewer authorities, this year, have you seen complete the implementation of moving out

of the ocean onto land-based alternatives, and what has the cost been?

LAWRENCE SCHMIDT: Senator, there are six large regional sewerage authorities in New Jersey that have historically dumped in the ocean, and will continue to dump in the ocean for a minimum of five more years because of the EPA permit. Back around 1978/1979, when the Congress made it well-known through EPA to stop all ocean dumping of sewage sludge, there were approximately 150-some communities in New Jersey that were utilizing the ocean for disposal. So, the number -- the reduction -- took place in the late 1970s from 150 down to about six.

SENATOR VAN WAGNER: All right. Now, how successful have you been from '84 to now?

MR. SCHMIDT: Well, those six large authorities -- as Senator Pallone has indicated -- represent about 50% of the sludge volume.

SENATOR VAN WAGNER: How much of their volume have you gotten?

MR. SCHMIDT: The irony of it is, as you improve the wastewater treatment process going from primary to secondary, you increase the volume of sludge; you do not decrease it. So, as our efforts to improve water quality in our own internal rivers and streams takes place through the investment and upgrading of wastewater treatment plants, we increase the volume of sludge.

SENATOR VAN WAGNER: I know that.

MR. SCHMIDT: Certain treatment plants, such as Passaic Valley, are going through a de-watering process, which would reduce its volume. But, to answer your question point blank, the six authorities that have been historically dumping in the ocean, will continue to dump in the ocean, because they are making significant investments in contractual obligations to barge for the next five years.

SENATOR GAGLIANO: Excuse me. Where will they be dumping in the ocean? At what location?

MR. SCHMIDT: EPA has negotiated phase-out agreements with New Jersey authorities. Currently, they are dumping 25% of their sludge at the 106-mile site. As of December 15, 1987, they will contract so that 100% of the sludge will go to the 106-mile site.

SENATOR GAGLIANO: So there will be no more at the six-mile site by the end of this year?

MR. SCHMIDT: No more at the 12-mile site.

MR. LIBRIZZI: No more at the 12-mile site by the end of '87.

SENATOR GAGLIANO: No more at the 12-mile site by the end of 1987. Okay, that's--

MR. SCHMIDT: Westchester County and Nassau County have already phased out totally to the 106-mile site. New York City is dumping about 10% of its sludge at the 106-mile site. Rather than contract for services from commercial haulers, they have chosen to build their own vessels. Those vessels are under construction. One will be delivered this spring, one this summer, and one in the fall. So, as those vessels come on-line, New York City will go from 10% to 40% to 70% to 100%.

SENATOR GAGLIANO: And that will take how long over a period of time for New York City to do that?

MR. SCHMIDT: This year.

SENATOR GAGLIANO: It will all be done this year.

MR. SCHMIDT: It will all be done by December 15, 1987.

SENATOR GAGLIANO: All the ships will be done this year?

MR. SCHMIDT: Yes, sir.

SENATOR GAGLIANO: So, basically, by the end of 1987, we will have phased out the 12-mile site?

MR. SCHMIDT: That is correct.

MR. LIBRIZZI: Yes, sir.

SENATOR PALLONE: Is that on schedule, though, Bill?

MR. LIBRIZZI: Yes.

SENATOR PALLONE: Because I know we have heard that deadline.

SENATOR GAGLIANO: Are there any applications for delay? (no response)

SENATOR VAN WAGNER: What difference does it make where you pollute the ocean? I mean, I guess I am confused by that, but I thought we were talking about land-based alternatives. I thought we were talking about alternatives other than ocean dumping, at this point.

SENATOR GAGLIANO: Well, that is the next step, I think, Rich.

SENATOR VAN WAGNER: I realize they have contractual obligations. I also realize that you have directed various of these sewer authorities to take their sludge to other places, and it has been at considerable expense. They testified before us in Trenton. What I am trying to get at is, in terms of your strategy -- and I know Dr. Dewling is trying to develop a strategy; I am not trying to put you on the spot -- when do you expect that either incinerators, state-of-the-art landfill operations, or other kinds of disposal methods will begin to be implemented in this State?

MR. LIBRIZZI: I don't think we can give you a specific time.

SENATOR VAN WAGNER: Is it being done right now? Are you doing it in a stage fashion? Do you have a mitigation schedule?

MR. LIBRIZZI: I think the whole process needs to be phased. I think there is a great deal of study required relative to determining the options. And I think it is a multi-governmental issue.

SENATOR VAN WAGNER: It certainly is.

MR. LIBRIZZI: In fact, we are encouraging EPA to convene a task force to deal with the long-term management issues you are suggesting. So, specific answers to you today cannot be given. I would certainly come back to the Committee with some additional thoughts on it.

SENATOR VAN WAGNER: See, do you know what I-- That is where you have to drive at solutions. You have to say-- Look, we can't do this overnight -- okay? -- because it didn't happen overnight. But we have to have a mitigation schedule. We have to begin to put targets in place. You talked about focus. You have to start to focus on the end of this, so that legislators who are representing our grandchildren will not be sitting here talking about the same thing. That's all I say.

MR. LIBRIZZI: I agree, and I think that focus is there.

SENATOR VAN WAGNER: Our grandchildren, or, I don't know, somebody's grandchildren. (applause) I didn't do that for applause, I really didn't.

SENATOR GAGLIANO: Bill, isn't it true, following up on Senator Van Wagner's questions and comments, isn't it true that several sewerage authorities are going to the next phase, that is, a form of incineration? I am not sure whether they call it melting, or something. I think even the Northeast Monmouth County Regional Sewerage Authority is--

SENATOR VAN WAGNER: Middlesex County.

SENATOR GAGLIANO: --anxious to build such a system. Of course, they would have to go through a certain amount of local processes.

SENATOR VAN WAGNER: Permit processes.

SENATOR GAGLIANO: But, isn't it true that this is on the way, too, so we can explain this?

MR. LIBRIZZI: It has been a continual process, yeah. It is going to continue.

SENATOR GAGLIANO: Are there any of them under operation now? Are there any systems operating now, so that they are not putting the sludge someplace else or disposing of it?

MR. SCHMIDT: Yes. The Department has just come out with a draft Sludge Management Plan. That management plan is subject to public hearings, which will be ongoing over the next several months. Within that plan, there are definite strategies on handling municipal sewage sludge. Right now, there is a ban on placing municipal sewage sludge in landfills in the State of New Jersey. A lot of the authorities have chosen to take the sludge out-of-state, primarily to Pennsylvania.

In terms of a long-term program, we are looking in a couple of directions. First of all, we want to clean up the quality of the sludge. If you have clean sludge, it can be incinerated, it can be land-applied, without any environmental problems. To do that, we have to further implement the Industrial Pre-Treatment Program.

SENATOR VAN WAGNER: How are you making out with that?

MR. SCHMIDT: It is an ongoing program. We are doing very well. We are working in conjunction with the Federal government, which has set national pre-treatment standards for various types of industries and polluting materials. The program has been delegated to the State, and we have in turn worked with the large regional sewage authorities, and they are implementing it. Their industrial customers are doing either housecleaning, so they avoid putting the toxic material into the wastewater, changing their processes, or, in the case of some large industries, they are actually building industrial sewage treatment plants. For example, if you go up Route 1 and look at the Ford Motor Company assembly plant in Edison, right at the corner is a plant that cost close to \$10 million, which basically takes the metals from their chrome processing and

painting operations, gets it out of the wastewater stream, and then, after it is treated, it is discharged into Middlesex County.

SENATOR VAN WAGNER: I am just going to say something, and then end what I'm saying. If we, as a Legislature, received a kind of a targeted schematic of knowing where we were going, particularly of us down here who hear about this, who deal with it, who live with it-- If we were to get that kind of a targeted accomplished task -- this many industries, and so on and so forth -- without being overbearing to industry either, but this is the way it is coming along, this is our reduction-- You know, if we could see how much this is going to reduce these kinds of numerous particles, you know, because the people here are almost professional in watching what is going on in the ocean -- the organized citizens' groups. If they have demonstrated targeted objectives, they will have something to be guided by, and they can get on us when it is not moving fast enough, get on you, and so on. But, we seem to always run in circles on this.

MR. LIBRIZZI: No, I think you're right. I think the purpose of updating the Ocean Management Plan was directed toward achieving that. You are specifically requesting a lot of detail, and that's fine.

SENATOR VAN WAGNER: Yeah, because I would like to see it.

MR. LIBRIZZI: Fine, yeah, and I think that is a reasonable request for the strategy.

SENATOR GAGLIANO: Excuse me. The other positive thing about Senator Van Wagner's comment is, if we are given this information, for example, that Company X, Y, or Z has built and is now operating a \$10 million sewer plant which is doing certain things, that has the positive effect of having other companies say, "Well, if they can do it, we can do it," because I feel there is a lot of negativism towards some of

these things because they can't read it in the bottom line. The board room people -- the people who actually run the companies -- have to be convinced that it is the thing to do -- spend the money to pre-treat.

Following up on what Senator Van Wagner said, if you could put out, on a monthly basis, a report of what companies are doing the right thing, you will find, I think, that others will follow, and they will follow very quickly because that will be the thing to do in the corporate structure. But, as long as they can delay it and someone can say, "Forget about it," or, you know, "DEP has fined us a million dollars, and now we are going to be hurting and heads are going to roll"-- That is a very negative way of approaching the problem. I think we have seen that locally with a particular company, where the whole company--

SENATOR VAN WAGNER: Yes, that's a very good point. I was thinking about that company.

SENATOR GAGLIANO: --on almost a world-wide basis, was mad at New Jersey, as opposed to being cooperative with New Jersey. Now they are--

SENATOR VAN WAGNER: I get monthly reports from that company, faithfully, indicating the levels and the compliance with your standards -- every month. We both get them.

SENATOR GAGLIANO: Those who do the right thing should get a pat on the back publicly by government.

SENATOR VAN WAGNER: They paid their dues.

MR. SCHMIDT: For those who don't do it, we need to take strict enforcement.

SENATOR GAGLIANO: Absolutely.

SENATOR VAN WAGNER: You nailed this company, for sure.

SENATOR PALLONE: Bill, I understand what you're saying, but the problem I have with this statewide Sewage Sludge Management Plan, is that I don't see any real emphasis on saying, "Let's not use ocean disposal." In other words, the

way it is set up, you know, you set forth various alternatives; you talk about some land-based alternatives. But it seems to anticipate that ocean dumping is going to continue for a long time to come. That is what concerns me. It seems that our Sludge Management Plan should be saying, "Well, we are only going to be dumping for a few more years," and setting guidelines for phasing it out. Instead, it seems to be saying, "Okay, we are moving to 106 miles, but we really don't have any strong preference for these other alternatives as opposed to ocean disposal."

I would like you to comment on that, because I know a lot of the environmental groups are concerned that that plan doesn't go far enough to say, "Look, ocean disposal is discouraged, and we don't want it."

MR. SCHMIDT: Senator, one of the things that our Department has advocated for a number of years, is this whole idea of comprehensive, multi-media analysis. If sludge is a by-product of the wastewater treatment process, we are going to improve our local water qualities, and we are going to increase the volume of sludge. How can we best dispose of it?

There are three alternatives: Dispose of it in the ocean; incinerate it; or land-apply it. A comprehensive, multi-media analysis would determine as to what the public health effects would be. If you incinerate the material, you create air pollution. If you land-apply it, you potentially create pollution to groundwater. Or, you ocean dispose of it. It is a trade-off. We have to look at the public health implications and determine which media is the most environmentally acceptable.

SENATOR PALLONE: So, ocean disposal is not our least favorite alternative at this point under the plan?

MR. LIBRIZZI: No, I don't believe that is correct. I think--

SENATOR VAN WAGNER: They're saying they can't tell you that. They are saying to you that they are making the hard choices. That is what they're saying.

MR. LIBRIZZI: No, I think what I would say is, land-based alternatives ought to be continually pursued, as opposed to ocean dumping. Now, the question of how we get there -- which Senator Van Wagner is suggesting -- requires a lot more detailed analysis. That is the message I get back.

SENATOR PALLONE: But you see, the problem I have is, I just think the statewide plan should discourage ocean dumping. I mean, isn't it true that we are the only-- I mean, isn't this 100, now 12, and now it is going to be 106-- That is the only site in the whole United States -- and correct me if I am wrong -- where municipal sludge is now being disposed of in the ocean. With the other type of dumping, maybe not; but no other place in the country disposes of municipal sludge in the ocean.

Shouldn't we -- the State of New Jersey -- be saying, "This is not a favored alternative"? I don't know why that is an equal alternative to these other -- you know, to incineration or land-based alternatives for New Jersey, but it isn't for any other state, other than New York maybe.

MR. LIBRIZZI: Let me make a commitment to the Committee. I will go back and talk to the statewide sludge management people with your specific question in mind. I will suggest to them what your Committee feels the Sludge Management Plan should reflect.

SENATOR PALLONE: I just think it is the bottom line that we have to make some kind of a statement, as a State, that we really feel that ocean dumping is not a favored alternative, or isn't even on an equal par with these others. You know, why should New York and New Jersey be the only states that continue to have that option as an equal option? I think it is a very bad precedent.

We talked about the schedule for phasing out, and I heard the December 15 deadline. Are you satisfied, based on what you know about the New Jersey authorities and New York City, that that deadline is going to be met?

MR. LIBRIZZI: Yes. As far as we know now, the dumpers are on schedule. In fact, we have asked EPA to do everything possible to ensure the schedules are maintained, and if there are any potential slippages, or slippages, strict enforcement should be taken.

SENATOR PALLONE: Okay. Just one more thing on the sludge, because I know we have to move on. The 106-mile site-- There are some people here today to testify that they feel very strongly that the use of the 106-mile site -- which many of us have described as a better alternative to 12 miles, because it is further out to sea, and for other reasons -- that the use of that site really isn't a very good option; in other words, that there are a lot more problems with the 106-mile site than were initially thought.

What is the rationale for saying 106 rather than 12, other than-- We're assuming it is not "Out of sight, out of mind."

MR. LIBRIZZI: Right.

SENATOR PALLONE: There has to be some environmental reason.

MR. LIBRIZZI: There are comments in that regard. I think there has been a whole process of studying that Larry has been involved in.

MR. SCHMIDT: The rationale for the 106-mile site, is that it is off of the continental shelf. Senator Van Wagner, earlier, said, "What difference does it make where we pollute the ocean?" It makes a big difference. The 12-mile site has limited circulation, and is approximately 150 to 175 feet of water. The sewage sludge particles accumulate on the bottom at the 12-mile site and cause degradation to water quality that is documented in the immediate area.

The 106-mile site is what the Federal government refers to as a "disbursive site." The sludge particles are light and flocculent, and they go through the water column very slowly. You're talking about 8000 feet of water, average depth, and calculations that were done by the National Oceanic and Atmospheric Administration have indicated that they don't believe there will be any accumulation of sludge on the bottom of the ocean at the 106-mile site, because of the disbursement through the water column. As a matter of fact, part of the monitoring program that will be undertaken in conjunction with the 106-mile site, will try to demonstrate whether there are any far afield or ocean process effects.

SENATOR PALLONE: Okay. One of the--

MR. SCHMIDT: So, we are talking about a lot larger volume of water. We are also talking about an area where we don't have a shellfish resource, and we have a much larger area in which the pollutants can disburse.

SENATOR PALLONE: Well, I tend to agree with you. However, I know there is going to be some testimony today, and I have heard comments made to the effect, that whoever has been investigating this 106-mile site really hasn't looked into the ramifications, in terms of fishing and marine life, and they ultimately realize that garbage is going to come back. Obviously, there is a lot of fishing that takes place out at 106 miles as well. So it is not like what happens out there isn't going to affect the coast. But I guess we will just have to wait for that testimony.

MR. SCHMIDT: I think Dr. Suszkowski or Chris Daggett could probably better address it, because they have lived with that for the last five years.

SENATOR PALLONE: Okay. Bill, after this we may ask you to sit down so we can hear someone else, and then ask you some more questions later, because I know we have to get on. But I did want you to tell us what is going on with regard to

the wood-burning site. I know DEP has taken over some of EPA's enforcement authority pursuant to an agreement that you negotiated, and I just want to know the details and the status of that. It is very close to our area, so obviously it is something of concern.

MR. SCHMIDT: Yeah. Obviously, the wood-burning process is beneficial, in that it cleans up the harbor and allows development along the harbor. It should be done properly. We have noted, as well as you have, some of the concerns relative to the wood-burning process and the wood-burning permit. We have met with EPA in an effort to enhance and expand the surveillance and enforcement aspect of the permit. A memorandum of understanding will be signed very shortly, which will give the State deputy power, so to speak, relative to the surveillance of the wood-burning operation.

The enforcement aspect of the permit obviously remains with EPA. Once that is a signed agreement, we will then be prepared to provide whatever additional surveillance we can provide.

SENATOR PALLONE: Well, now I am a little concerned, because I thought several months ago -- September or October, or whenever it was -- that negotiations had already been concluded, and that DEP was, in fact, accompanying the vessels out to sea and monitoring the vessels -- doing that stepped-up monitoring. Now, either that hasn't taken place, or there hasn't been any wood burning and it wasn't necessary. Has there been wood burning since the summer? We had a hearing in July.

MR. SCHMIDT: There has been, yes.

SENATOR PALLONE: Has that been monitored in the fashion that was promised, because we were promised that DEP--

MR. LIBRIZZI: I believe it has been monitored.

MR. SCHMIDT: Senator, it is my understanding from EPA that, in fact, there is a wood-burning vessel in transit to the site right now.

SENATOR PALLONE: Right this very minute?

MR. SCHMIDT: Right this very minute. There is supposed to be a trailing vessel going along, and I understand there is going to be EPA aerial surveillance of the operation. So, EPA has made a strong commitment.

SENATOR GAGLIANO: May we have certifications of that? (no response)

SENATOR PALLONE: Yeah, but you see-- Bill, when we were before the Senate Energy and Environment Committee back in September or October -- I know it was early fall -- we were told at the time that an agreement was being entered into; that DEP was going to take over certain enforcement responsibilities, and that they were going to involve having the vessels inspected -- the barges inspected in port -- and that a DEP vessel -- this is what I was told -- was going to accompany the barges out to sea, stay with them as the burning took place, and then accompany them back. Okay? They were actually going to be -- DEP was actually going to be doing that monitoring, to assure that the material wasn't falling off the vessels, to assure that the burning was taking place at the site -- rather than on the way -- and to assure that the charred timbers were not floating back to Spring Lake, Sea Girt, and the other places where they were found last summer. Is that happening, or what?

MR. LIBRIZZI: I think the MOU was also enhancing the Federal government's surveillance of activity.

SENATOR PALLONE: No, that is not what I was told. I was told that you were going to take that over. But, I mean, who's doing it? Is anybody doing it? I'm really shocked. I am not trying to put-- Well, I guess I am putting you on the spot, because I remember I was told-- I think it was Don who was there.

MR. LIBRIZZI: Don Deieso?

SENATOR PALLONE: Yes. He simply said that this was being taken care of, and that DEP was going to do these things. Now they're not.

MR. LIBRIZZI: Well, the MOU has yet to be signed. I can't answer your question about--

SENATOR GAGLIANO: But, you say there is a vessel out there now. There is a vessel on the way to the site now. There is no agreement as to who is monitoring this?

MR. LIBRIZZI: Well, I think Larry suggested it is being monitored by the Federal government.

SENATOR PALLONE: What are they doing, though, that they were not doing before, Larry?

MR. SCHMIDT: Well, the one new aspect is a requirement which we believe was inserted by EPA, that would require a trailing vessel to go along, so that if anything fell off of the burn barge in transit, or during the burn, it would be able to pick up that material. And, as I said, the information I have had is that EPA is going to do aerial surveillance of the vessel in transit, and that there are opportunities, or requirements, now for ship riders to go along. So, whether they are Federal personnel or State personnel, there will be vigilance in terms of surveillance and monitoring.

SENATOR PALLONE: Well, you know, I have to say right now, that I was very happy, at the time, to hear that the State DEP was taking over the responsibility. I am not satisfied to hear that the Feds are going to do it, because I don't think their track record has been so great with wood burning. I was very happy to see that the State was going to take that responsibility over, and that that responsibility was going to include being with that vessel at all times -- in port, on the way out, and back to port -- because of the potential for wood falling off on the way, the potential for the burning not to be complete, the potential for charred timbers to fall off and be disposed of, and the potential to simply dump on the way back.

So, you know, if that hasn't taken place, I would like to know when it is going to take place. You will have to get back to us on that, obviously.

MR. LIBRIZZI: And we will do that, but let me clarify. It is my understanding that the MOU does not establish full responsibility to DEP. I think it was supplemental to the Federal responsibility.

SENATOR PALLONE: Right. In other words, you were going to do the monitoring, and you were going to have enforcement powers.

MR. LIBRIZZI: Supplemental.

SENATOR PALLONE: Well, alternative, that you could--

MR. LIBRIZZI: Yeah.

SENATOR PALLONE: --take enforcement action, and EPA could as well. But, you know, apparently that hasn't happened yet. That is disturbing. Please get back to us and tell us: a) What is EPA doing? And b), what is DEP going to do? Because part of the reason why we-- I know this Committee felt very strongly -- and still feels -- that that wood-burning site should be eliminated entirely. One of the reasons why we felt a certain amount of satisfaction was because we heard, well, okay, it was going to continue, but this type of monitoring was going to take place. It seems a little vague now.

UNIDENTIFIED SPEAKER FROM AUDIENCE: Mr. Pallone, I just can't contain myself any longer. When that gentleman said--

SENATOR PALLONE: Well, excuse me, sir, we are going to let you speak.

UNIDENTIFIED SPEAKER FROM AUDIENCE: --they were going to put pieces of wood in the ocean-- I mean, this is ridiculous.

SENATOR PALLONE: Excuse me. We are going to let you speak. We are going to allow everyone to have an opportunity to speak. I just don't want interruptions, if we can avoid it.

Senator, I was going to ask Bill to step down now, so we can get to some of the other people who can't stay.

SENATOR GAGLIANO: Fine.

SENATOR PALLONE: Bill, I know you indicated you can stay until two, so--

MR. LIBRIZZI: We can stay a while.

SENATOR PALLONE: Maybe another hour or so?

MR. LIBRIZZI: Sure.

SENATOR PALLONE: Thanks again.

SENATOR GAGLIANO: Senator Pallone, the only suggestion I would like to make is-- I would suggest that we devote a day sometime to DEP and EPA issues entirely.

SENATOR PALLONE: Entirely, yeah, that might be a good idea.

SENATOR GAGLIANO: Because I can see happening what has happened in the past. We have so many witnesses, and people are going to be inconvenienced all day. We could get into, in-depth, issues with you. For example, there was an article in the press the other day. The Asbury Park Press said it was a mystery as to what happened to the Asbury Park sewer grant -- the sewer system grant. That is a very important issue. You fellows, and EPA, are tied to that very carefully -- very closely -- I think, and we can't even get into that today.

SENATOR PALLONE: I think that is a good idea.

MR. LIBRIZZI: We would certainly participate in that kind of a session.

SENATOR GAGLIANO: I think it would be so much better if we had DEP and EPA people here, and we went into all of these issues. For example, we might even make a suggestion that would get you together on wood burning, which could be done. This is all too vague. I just feel very uncomfortable, and I would rather give you guys a full day -- you and EPA -- if we could do it, Frank, because we are not--

SENATOR PALLONE: I think what we should do is-- I think that is a good idea, and I think what we should do is see where we are at the end of today, and then see if we could have a further hearing, maybe, just for those purposes, because it is such a broad subject.

I am going to try to narrow the focus today, though, to ocean dumping sites, rather than talk about some of the other things you brought up, because that is what most of the people are here for. But, I see no reason why we can't follow up on Senator Gagliano's suggestion. Okay?

MR. LIBRIZZI: Fine.

SENATOR PALLONE: Thanks again. Now, I have a couple of people who said they just have five-minute presentations, and then they have to leave. Then I want to put Save Our Shores on, because they have a video presentation -- or a slide presentation.

Mayor Winterstella, I know you have to go, so why don't you come up -- Mayor Winterstella of Manasquan? I'm sure you are familiar with the wood-burning problem.

M A Y O R J O H N L. W I N T E R S T E L L A: Very much so, Senator. As a part-time Mayor and a full-time employee of a New York publishing company, I appreciate your changing your schedule a little bit so I can get to work.

As the Mayor of a resort community, I am obviously very sensitive to what is dumped in the ocean, as well as what is said about the ocean. I think I would like to start by saying that much of what I hear, both in the press and at these kinds of hearings, is based on economics -- the economics of sludge disposal, the economics of disposing and burning of wood at a certain point close to shore, and the dumping of sludge close to shore. I think too often, a very important part of the economy is forgotten in these discussions, and that's the shore economy. In my opinion, it is an economy in trouble, because we are losing beach attendance, and we better do

something to start stressing that economy a little bit in the very immediate future.

The first area I would like to address is the offshore burning issue. In Manasquan, we have it both as an onshore problem and as a recreational and commercial boating problem. Generally, in the spring, we have a great deal of half-burnt debris that floats up on our shoreline. It is obvious that this was dock construction, because it has big bolts in it, and cleats and so forth. One of the problems we face, is that during storms, these become projectiles. During the storm of '84 -- the northeaster storm of '84 -- I saw one piece of timber that went right through the front door of a house on our beach front. Our beach front is different from some other beach fronts. As some of you may know, it has bungelows and/or houses right on the beach front. These things become projectiles. They have done damage to public buildings, as well as residential buildings. It is expensive for us to clean this material up. It is also an unsightly condition. Occasionally, a piece of this stuff comes floating into one of our public bathing beaches, and we have to send a bunch of lifeguards and beach planners out there to try to handle it. Most often, it is too big for a crew to pick up, so we have to clear that beach, and send people to other beaches, and tie it down until we can get it ashore with heavy equipment, and so forth.

It is also a problem for our recreational boaters and our commercial boaters who go in and out of the Manasquan Inlet. A lot of this material, as you have probably heard before, tends to float vertically, as opposed to horizontally. Sometimes you just see a stub sticking up; sometimes you are not even that lucky. You may just see a piece of it coming out of the water. This is for a couple of reasons. It evidently weighs a lot more; specific gravity-wise, it has been somewhat petrified; it's waterlogged; and many times it has large metal

bolts and so forth adhered to it. So, it doesn't always float where the boater can see it.

SENATOR GAGLIANO: It doesn't burn either.

MAYOR WINTERSTELLA: It doesn't burn too well. You're right, Senator. It is a problem to recreational boaters, commercial boaters, and even mayors. I hit a piece of submerged timber two years ago.

There are a couple of things that came up here today that disturbed me. There has been an awful lot of talk about helicopter surveillance by both the Federal and State people, but, to my knowledge, a great deal of this is burned at night -- at least I see the fires out there. And, unless somebody has changed the game plan, it is still being burned at night -- at least the fires run into night. What we see on our beaches is half-burned timber, or singed timber, if you will.

I think the solution to that problem is absolute enforcement. I mean, if it takes a State employee to go out on that boat and physically stand there and make sure they burn all the timber and bring back what they don't burn, then I think that should be done. What kind of an investment are we talking about, when we are comparing that against the economy of the Jersey shore?

SENATOR GAGLIANO: Mayor, we thought that was being done.

SENATOR PALLONE: That is exactly what we were told was happening.

SENATOR GAGLIANO: We were under the impression that that was being done, and that there was going to be total monitoring and policing of the offshore burning of this timber. That is what we thought was going to happen.

MAYOR WINTERSTELLA: I would certainly endorse that as a partial solution. Another solution-- As I understand it, this stuff is burnt offshore mainly because of the toxic fumes that may be omitted from the creosote and other preservative

kinds of chemicals found in the wood. I don't know why we couldn't pick a spot-- I don't want to get the officials of Sandy Hook all upset about this, but the prevailing wind on the Jersey shore, after four o'clock in the afternoon, is coming out of the west going to the east. I don't see why we couldn't designate a land site, such as somewhere on Sandy Hook, to burn this stuff -- if we are only worried about that. That way we would be sure of a 100% burn.

SENATOR PALLONE: We were told, Mayor, when we brought this up at a Committee hearing before the Senate Energy and Environment Committee, that all of this material, going back a few years, was burned at a site, I believe in Hudson County. For the reason you cited, apparently, they were concerned about toxic emissions, or whatever -- I think that was the reason cited -- and they closed down that plant and started incinerating offshore. Again, it is the "Out of sight, out of mind" syndrome. You know, well, it's out there. We won't see it, and maybe it won't come back.

But I think you are absolutely right. Monitoring is one thing, but we do have to look for a land-based alternative for that as well.

MAYOR WINTERSTELLA: I would certainly concur. There would seem to be some areas available, but hopefully not in Manasquan, I might add.

The second thing, on offshore dumping of sludge and dredge spoils and so forth, I don't have any data which would help me to substantiate, from a technical standpoint, that it is injurious to our bathers or to our public beaches. I do have some economic data, which indicates that there is certainly a visual impact to this. The red tide, the plastic products, the hospital waste all blight our shoreline. It is certainly not sightly and pleasurable to someone who is going to be bathing, when all of a sudden a Tampex applicator comes floating up to them, or some other kind of rubber product.

It is hurting our beaches tremendously, and it is that visual effect that really bothers me -- what is being allowed to go into the ocean so close to the shore.

I am also very concerned about the tremendous psychological effect. I am constantly trying to find out reasons why people are no longer coming to places like Manasquan. I do business in New York and North Jersey, and when I ask people, a great many of them tell me, "Well, the ocean is just too dirty now." I think county health department officials feel -- and I would suspect that EPA and DEP will testify later -- that the ocean in Manasquan is not that dirty. The data they present to me is pretty good from a health standpoint -- not pretty good, very good from a health standpoint. We have between 10,000 and 15,000 people on an average weekend day enjoying our public beaches.

Now, I know there are going to be some numbers presented later on about some people who got sick. I swim in that ocean all summer long. I have surfers down there -- several hundred of them -- who swim year-round. I don't see the kind of health hazard that is being put forth. My problem is, it is being talked about so much, that it is scaring an awful lot of people. It is scaring people away from a great tourist industry at the Jersey shore. If a person doesn't go to the Manasquan beach, they are certainly not going to stay at a Manasquan hotel; they are certainly not going to eat in a Manasquan restaurant; they are certainly not going to buy their bathing suits in a Manasquan store. Those are the kinds of things that concern me.

I think that ocean dumping, just by its general name, implies to a lot of our visitors that we are dirtying the ocean a lot worse than what maybe in fact we are. But certainly the implication is there to scare an awful lot of people. The New Jersey Council on Tourism is constantly telling me, "We want favorable publicity." Well, in my opinion, every time I see a

sign that says, "Don't swim in the ocean, because it may be polluted," or if we are going to dump more sludge in the ocean, that is very negative publicity. I think that if for no other reason-- If we can't find technical reasons to move this sludge offshore -- and there should be some -- I would certainly say that from the psychological positioning of a shore economy, we are doing a great deal of harm to the people who operate businesses and operate beaches at our Jersey shore by allowing this to continue.

Thank you.

SENATOR PALLONE: Thank you. I appreciate your testimony, and your coming down here today. Thanks, Mayor.

SENATOR GAGLIANO: Thank you, Mayor.

SENATOR PALLONE: Save Our Shores-- I just got a promise of two very short presentations.

D R. D E N N I S S T E R N B E R G: I have to go to a position and I have patients.

SENATOR PALLONE: Doctor, you have what, a 20-minute--

DR. STERNBERG: Yeah. I was supposed to start at 10:30, and I have patients at 12:30.

SENATOR PALLONE: All right. Lester, you said you only have a two-minute presentation. Let him come up, because otherwise we are going to lose him. This is Lester Jargowsky, who is the County Health Officer. I just want to thank you, Mr. Jargowsky, for your efforts and for your involvement with this Committee, because you basically brought to light the problem with storm drain and sewage runoffs, and suggested the legislation dealing with storm water monitoring.

L E S T E R J A R G O W S K Y: I would like to thank you, Senator Pallone, and Senator Gagliano, for picking up on those comments and so speedily moving that bill through the State Senate. I understand there was a 37-0 vote on that, and that it is moving right along. I think that is going to do wonders for the shoreline; I really do.

Just a few quick comments. First, I don't think we should just forget about the dredge spoils issue. You hear about moving things off-site to 106 miles. It is my understanding that the Corps of Engineers will retain the authority to continue dumping dredge spoils some six miles off our coast. Those dredge spoils, if you have ever witnessed a dredging operation-- They are picking up all the old oil filters, the plastics, and the organics -- everything that has been dumped in the creek for such a long time. They pick it up and dredge, and when it is dumped back into the water, that material is re-suspended. The net effect of that, if we have the right winds and tides, is that a lot of that garbage -- again, aesthetics; we are talking aesthetics number one here -- ends up on our beach. I think we ought to work toward eliminating that dredge spoil activity as well. I really think that is contributing to the aesthetic loading, in addition to the toxic loading that could potentially be in that dredge spoil, especially the heavy metals, you know, the more persistent items -- pesticides and base neutrals.

SENATOR PALLONE: That is going to be the prime focus, I think, of our questioning today with the EPA representatives, because there really haven't been any alternatives proposed to the dredge spoil sites, or, if they have been proposed, they have not been given serious consideration, in my opinion, at this point. I think a lot of times the public confuses the sludge dump site -- which is being moved out -- with the dredge spoil site, which is even closer to shore at six miles, which so far isn't being moved out at all.

MR. JARGOWSKY: Right. I just wanted to reenforce that. I totally agree on the burn facility with Mayor Winterstalla's comments. The monitoring of that facility has to happen. I was under the same impression as you gentlemen were that there had been a new agreement; that DEP was going to be checking that. There was a real problem last summer, and

when the outcry started, all of a sudden the problem stopped. Something changed out there. I don't think we want to go through that again.

We were also seeing, mixed in with the timbers, burnt medical waste -- burnt syringes. About the same time we were seeing these burnt syringes, there was a push on -- both in New York and in New Jersey -- to closely manage medical waste disposal at landfills. So I think we had something going on there. I am implying that maybe they were burning medical waste with the timbers. So, the need for close management is imperative.

One last comment. I must say that communications between DEP and our office, at this point in time, are just excellent. We have been discussing a lot of these topics, and Commissioner Dewling has been superb in dialogue.

The issue of the New York Harbor boat traffic-- I have a hunch -- and some other people have a hunch -- that that may be contributing a good amount, again, to this floating material -- the stuff that comes up.

SENATOR GAGLIANO: Do you mean boating or shipping?

MR. JARGOWSKY: The big ships.

SENATOR GAGLIANO: The big ships.

MR. JARGOWSKY: The big ships -- the big vessels. Perhaps they forget. You know, they wait until they get into the Ambrose Channel, and they say, "Oh, we forgot. We were going to purge our tanks." And then they purge their tanks, you know.

What I would suggest -- even though this is going to be extremely difficult to police -- is perhaps the Interstate Sanitation Commission could have some type of pumping facilities available as an incentive for these vessels to pump out their tanks, rather than purge them when they get into the Ambrose Channel area. You know, if a vessel happened to come into the harbor, and didn't purge their tanks way far offshore,

at least they would have an alternative, rather than letting it fly right in the harbor, so close to the harbor and to our beach front.

SENATOR PALLONE: When we get the EPA here this afternoon, we are going to get into that vessel source pollution problem, because that is something that really hasn't been addressed by this Committee at all. We will ask them about it.

MR. JARGOWSKY: Well, we have a glaring, positive example of something going right on the same pumping type of issue with the Borough of Belmar. In their municipal harbor, they installed exactly one of these pumping devices. It is the only one I know of on our shore. It is available constantly. A boat owner can pull in, have his tanks pumped, and it goes right into a sanitary sewer line. For a long time, Belmar was offering it free of charge. I think that is the kind of incentive we have to have. That is a success story, because the Shark River, where Belmar is located, has improved dramatically. All of these little things add up.

SENATOR PALLONE: We have one of your Commissioners here from Belmar. I'm sure he was pleased to hear that -- Paul Caverly, who is sitting in the back.

Lester, I want to thank you for coming. Bill Librizzi has also been asked some questions by this Committee in the past about the hospital waste problems, so perhaps when he comes back again, we can also ask him about that as well. We will get into that with him before he leaves today.

MR. JARGOWSKY: I think close monitoring the burn vessels will just totally eliminate this hospital waste -- burnt hospital waste -- issue, because that was showing up in the surf in Sea Girt.

SENATOR PALLONE: So, in other words, you feel that the hospital waste is being mixed with the wood-burning material?

MR. JARGOWSKY: Yes, I know it was, because--

SENATOR PALLONE: But that is totally illegal, right?

MR. JARGOWSKY: Absolutely.

SENATOR PALLONE: What is that based on, Lester?

MR. JARGOWSKY: It is based on observations of the wood debris, coupled with partially burnt syringes, and coupled with one incident, two summers ago, where an individual was harpooned in the toe by a syringe which was partially burnt with all of the other debris.

SENATOR PALLONE: I know that when we had the wood-burning hearing this summer -- as well as last summer -- we specifically brought that up. The response from both EPA officials and the companies which burn at the site-- You know, they just basically ripped into me, and said, "Oh, that's ridiculous. There is no way that we are taking hospital waste out there. We are just talking about timber pilings."

If that is the case, that is a real serious problem. You know, hospital waste out of New York is supposed to be very closely monitored. It is supposed to be disposed of in a special way. If they are taking it out to the wood-burning site and mixing it with that, you know, that is a serious charge. I am not suggesting that you are taking it lightly. I know you are serious about it, but that is something that really needs some investigation, if that is the case, because it goes against everything that all of these different individuals involved are saying. They are protesting that they very closely monitor the type of waste they put out there. So, we will have to look into it.

MR. JARGOWSKY: I am just suggesting that there is a need for some close monitoring. It was interesting that once the outcry started last summer, all of a sudden things turned around.

SENATOR PALLONE: Yeah.

New Jersey State Library

MR. JARGOWSKY: You know, we shouldn't have to get to a point as we did last summer, where the Coast Guard issued an alert for boaters. We had significant safety and public health hazards.

SENATOR GAGLIANO: Frank?

SENATOR PALLONE: Yes?

SENATOR GAGLIANO: I wonder if at whatever hearing we have in the future, where we will be bringing in DEP and EPA, if we could actually invite the governmental person who is in charge of the overall wood burning. I guess--

SENATOR PALLONE: We could do that.

SENATOR GAGLIANO: It has to be, I imagine, an employee of EPA. If we could have him come in and tell us exactly how it is done -- if we could do that -- I think that would be a great idea. The only thing I know is that from time to time I hear about charred timbers floating ashore, or out there. I also, of course, once in a while, look offshore and can see the burning. But, other than that, I am not familiar enough with it, and I do think it would be a good idea if we knew exactly where the stuff comes from and how it is checked as it goes on board.

I have a real question. How do you get a timber to burn that has been in the water for 50 or 75 years? I mean, do you put it onshore and dry it out for a few months, or do you just say it is going to burn? We have enough trouble just getting wet firewood burning in the fireplace. I just don't understand how you can get this stuff to burn if it has been underwater for 50 years.

SENATOR PALLONE: Well, maybe we will end up having to devote a full day to the whole wood-burning issue.

SENATOR GAGLIANO: Right.

SENATOR PALLONE: Especially if what you're saying is happening. That is a real serious problem.

MR. JARGOWSKY: You heard testimony earlier from Mayor Winterstella and, again, he referenced the medical waste coming up on the beach.

SENATOR PALLONE: Yeah.

MR. JARGOWSKY: That does not happen all the time, but it is a remarkable coincidence that charred timbers are showing up along with charred syringes.

SENATOR PALLONE: All right. Thanks a lot, Lester. I appreciate it. I am going to ask Dr. Mytelka to wait. We do want your testimony, Doctor, but we have to hear from Save Our Shores first. If you could just stay until afterward, I would appreciate it.

Dr. Sternberg, thank you for coming. Do we have everything set up audio-visually?

DR. STERNBERG: I believe we do. I just want to make a brief statement first. I hope you will--

SENATOR PALLONE: Go right ahead.

DR. STERNBERG: My name is Dr. Dennis Sternberg. I am President of the group Save Our Shores, which is made up of 500-plus physicians throughout the entire State, and many, many thousands of citizens from this State and from the tristate area.

After listening, Senator Pallone and Senator Gagliano, to some of your comments -- and I was pleased to hear them -- I, too, was disturbed to hear about this lack of communication among DEP, EPA, and our house of legislation. It is abhorrent. I believe the time has come in this State of New Jersey for the Legislature -- both houses -- and the Governor to become instrumental and instrumentally informed about the state of the pollution of our ocean.

Today, I am not going to talk to you about tourism being number one in this. I am not going to talk to you about the billion dollar fishing industry which is at stake. I am not going to talk to you about the billion dollar recreational

fishing industry that is at stake, or the restaurants, or the real estate. What I am going to talk to you about is the state of the health of you, of myself, of our children, and all of our children to come. Your chief responsibility, and my chief responsibility, is to make sure that this once beautiful State, with this once beautiful ocean, is returned to at least a state of health, where people can once again swim and recreate in the water, without fear.

Mr. Librizzi will state, as well as Dr. Dewling will state, as well as past EPA Chief, William Ruckelshaus will state, that the poisons are already in the food chain. I have not heard it mentioned here; it is only mentioned in little columns. In 1982, the Federal EPA said, "Pregnant women should not eat striped bass." It took until 1986 to close the striped bass fishing industry, not because the fish were too small, or not plentiful enough, but because there are PCBs to such a high level, that it is dangerous to human health. Bluefish are the same kind of species of major fish that are eaten by subsistence fishermen, who do not read these messages. Bluefish have high levels of chlordane, the same thing they closed and burned and tumbled down houses for in Long Island. That is in the food chain. We hear nothing of this.

The reason the boating industry was disturbed this year by timbers, was because the wind, which normally blew all of this stuff out from shore, was blowing it out to the Hudson Canyon, and boaters who went out there were running into it. When the wind shifted, that is when it stopped, not from any miracle.

I am going to show you slides, because I think everyone here should see what we are talking about, and a short video. I will explain to you the desires of the physicians and the people of Save Our Shores shortly after that. If the Army Corps of Engineers would help me, at least in this--

SENATOR PALLONE: Should we dim the lights? Is there any way to shade that window up there? (Lengthy discussion about setting up slide and video equipment and lighting at this point; indiscernible, since not near microphone.)

DR. STERNBERG: If it will do better up here, I would be happy to show it up here. Everybody has to see this. Pardon me for the interruption. Anyone who hasn't seen it -- and I daresay there are many people who haven't seen it -- just talks about something they don't know. (further discussion about lighting and positioning of screen)

SENATOR PALLONE: I think we're okay now.

DR. STERNBERG: How about a total eclipse. God?

SENATOR PALLONE: No, we're not going to get that.

DR. STERNBERG: Will one of you gentlemen help me with this?

SENATOR PALLONE: I think that's okay.

DR. STERNBERG: Now, you'll see the title, "New Jersey Goo." That is a picture taken this year at a senior citizens' home in Asbury Park. It is not the ocean white with foam. It is the ocean filled with toxic foam -- a toxic foam which I believe is made out of heavy metals, chemicals, dying algae, and parts of the sewage sludge dropped off the barges 12 miles off our coast, and less.

This is map showing the apex of the New York-- Here you see Manhattan dumping two to three hundred million gallons a day of totally untreated sewage. You see the innocuous-sounding 12-mile site, to which eight and a half million tons of sewage sludge has been dumped all these years, up to now. You see another innocuous-sounding name, "the Mud Dump," 5.7 miles off of Gateway National Park, a park which is no less valuable to this State than Yellowstone National Park. More people visit this park, yet it is these muds dredged from the Hudson and Raritan Estuaries which are loaded with toxic metals, chemicals, and PCBs that we allow to roll onto our

beaches and into our food chain. Do not stop the dredging, gentlemen from the Army and the Navy, but do not dump it 5.7 miles off of where we live, off of where the fish swim. If you cannot find an alternative site now, I say that the Governor of this State should ask the Congress of this nation, that we take barges and boats that are drydocked and mothballed in the Chesapeake, and use them, and temporarily bring out that five-mile site to 106 miles offshore, along with the sewage sludge.

I believe that would be an interim alternative only, because it is better in 8000 feet of water than it is in 80 feet of water, or 60 feet of water, or on the beaches. But that must only be temporary.

Before I go on, I want to tell you about the wood-burning site. I could almost live with the wood. We can see it. We can see Tampons on the beach. They are indicators. What happened here in Long Branch maybe was the result of pigeons and sea birds, but then I suspect that every pier along the coast of every state in this nation has the same toxic wastes and the same pollution, and maybe nobody should swim within 100, or 500, or 1000 yards of any pier in this nation. Perhaps we should make that public.

I think that what has happened here in Long Branch is an indicator of what is happening in the ocean, per se. The Mayor of Manasquan sees what floats onto the beaches. People are getting sick.

This is what Manhattan looks like. It is a beautiful place. The Statue of Liberty is surrounded by a moat of human sewage and toxic chemicals. Here is what it looks like going out to the World Trade Center. This is not the great river the way it is supposed to be. No matter what we do here in New Jersey, this has to come to an end, and it has to start in New Jersey. Then it has to start in New York.

This is where the aircraft carriers -- the home port is to be, where the sailors get off to come ashore. Before they go to see what the great New York and Staten Island and New Jersey look like, they get a firsthand view of the prophylactics, the Tampons, the dead fish, and the raw sewage. That should not be a home port. And the containment barges off of Staten Island. Nothing is dumped, but it blows -- the hospital waste infected by people who may have had AIDS or hepatitis. It is there; to say it is not there-- I say, "If you haven't seen it, you haven't looked."

Close-up -- what do we see here? Condoms, sewage, other waste. The waters are polluted, not recommended for bathing, yet people swim. They swim, as people have said, because it is a relief when it is hot. The children who live here think the water is supposed to be brown. The sailors who are here know the water is supposed to be blue. I know it is supposed to be blue and clean. Let no one tell you that the waters were always brown in New Jersey. I am 38, and they weren't brown in my early lifetime. They're brown now, and my children think they are supposed to be that way. Well, I wouldn't swim under the Verrazano Bridge, but years ago they did, and they still swim now. The people from New York moved down to Sandy Hook, and from Sandy Hook to Asbury Park, and from Asbury Park to Long Beach Island, and from Long Beach Island to Rehoboth. God forbid it goes to Rehoboth, because the Governors and the Senators and the Congressmen go there, but it is on its way.

Now, here is a man -- a fisherman. He is fishing over a 10-foot outflow pipe in New York. He catches striped bass among the condoms, and he brings them home to eat. His family doesn't have much money. The children get sick, and who knows what the pregnant women deliver, because we know PCBs are possible cancer causers, and we know that chlordane is a pesticide, which is a problem, and we know heavy metals are

problems, and we know mercury caused Minnimada (phonetic spelling) disease in 1956 in Japan, a lesson which should not have been forgotten, when methylmercury crossed the placenta into healthy children. I have Bell's Palsy today, and these people have worse than Bell's Palsy.

Here is a picture of a striped bass rotting in the debris. New Jersey is a beautiful State. We all live here. I love it, or I would be gone. We had a shellfish industry. We had clams when I was a kid, that you could pick up on the beach and eat. "The New England Journal of Medicine," this year, said that eating shellfish from polluted waters, raw or cooked, can be hazardous to your health; might even cause death. You have all heard about Hepatitis. So, we do testing. We ask DEP and EPA to do testing. Why? You only have to have eyes and ears and a nose to know why. If you want proof, test and find proof. The problem is, ocean pollution must be ended. Ocean dumping must be ended. Alternatives must be found, because the risk to our health is much greater than any of the risks that can be named. When they talk about land-based incineration and burial, they give negatives, but no one has given the negative side of ocean dumping. Save Our Shores will give you today the negative of why you should not dump in the ocean.

This is the way it used to be; the way it should be -- the Meadowlands. The way it used to be; the way it should be. The way it is now. I can see that and, yes, it doesn't look good to see, but it is not the bacteria we don't see, and it is not the heavy metals and chemicals that we don't see.

The Coast Guard Station at Sandy Hook, where I took the Governor to see this firsthand. Sea gulls picking Tampon holders and proplactics. The sailors told me they clean it every day, or every other day. That was for the Governor when he came.

If you like wildlife, you will realize that the food chain has been infected by pollution -- the fish. EPA stated

that mackerel eggs have mitotic changes. For those who are not scientifically oriented, that means gene changes in the eggs. They say if they burn toxic wastes off South Jersey from the barges laden with PCB oils -- dioxin oils -- that there are going to be mitotic changes there. We cannot live without water. We cannot live well without reproducing the quality of life for our children and ourselves. Our peace of mind is at stake.

More of what it looks like in the open ocean. Kids singing here in Long Branch at Kids' World. I used to do it. I don't think this is from sea gull droppings. I think it is an indication of the whole situation of the ocean. If you have looked at the currents and how they flow out of the Christiansen Basin and down the coast, all the way to Loveladies, you may see some of the currents run here to Long Branch. If there is a pipe, or if this is part of the problem, then fix it. Maybe it can be fixed. But we cannot fix human health. We have not even begun to gauge what it is, because up until Save Our Shores, nobody asked physicians, "Do you know if people are getting sick?" including DEP. We have seen it.

You cannot understand the problem until you see the barges leaving New York loaded with sewage sludge. I was here showing a special man on this New Jersey vessel what the dredge spoils look like as they are being dumped in. That was the foam created. It looked very mystic, like you could walk on it. And there the Governor and I are watching. He said, "Dennis, if I don't do something, two years from now I will close the beaches." And two years from then, he did close the beaches. This is what it looks like taken from a jetty in Allenhurst open ocean. It looks to me like another galaxy.

The wood-burning barges-- I got tired of playing, so I went out and I filmed them. There they are. They are loaded up with wood. They burn it during the night, and pieces fall off. The boaters got it this year, because the winds blew

west. That's why everyone told you it was clear, because the winds blew offshore, not because it was cleaner, and that is why you didn't get the horrendous tides for the past two years. For the first month and a half, the wind blew west and southwest, and there wasn't anything out of the east or northeast. But, as soon as it turned its back on the beaches, in two hours-- If you are a little bit of a meteorologist, or a little bit observant, you can see it. There is no secret to it. Any good sailor, or lifeguard, as I was, can tell you it was the tide that made the water seem clear.

Here is one of the famous boats that leaves New York eight times a day, making its "S" curve within sight of both coasts, dumping the sewage barge. You have to smell it. I have a tape I will show you, which will help you to better understand what you are seeing. It goes on day and night, day and night, day after day. If they move the site to 106 miles where it is supposed to be, it will be better. But if they leave it at 106 miles and don't develop alternatives-- As Senator Van Wagner said, we want to know when and how out of the ocean. We want a plan when and how. The Senate, and the representatives of the State, and the Governor, must be told, and the press must be informed monthly. It is the press' job, as well as the Legislature's job, to keep on top of it. If we don't, five years from now there will be another Senate hearing here, and they will say, "Well, five years ago you told us it was going to stop." We don't need in and out answers from DEP or EPA. This is a major health problem in our State. We are asking for a study to be done different than ours, more scientific, if you will, but the problem is there, and no study is going to hide it. It will only bring it to light, and force people to finally realize what we have and what we are losing.

This is open ocean. This is in Sea Girt, onto the beaches. This is what comes off of the barges. I would very much say so, because I have seen the barges dump and I have

seen this wash on. It is not a red tide, nor a brown tide, nor a green tide. It is a mix of dying algae, which is eating the sewage sludge which does not flow to the bottom. This is what the kids swim in. This is what washes onto the beaches. It is not final flagellates. When Alexander Lear (phonetic spelling) was prosecutor, I had a sample given to him, and they told him it was too highly contaminated with heavy metals. I used a clean patch urine sample bottle from a MBS laboratory, and I took the sample. I didn't do anything else but that, and there was nothing ever heard. John Kay, who then became prosecutor, brought a presentment against Asbury Park. Asbury Park is going into secondary sewage treatment. There is no reason why we can't have what Florida has, which is tertiary sewage treatment. Why do we have to settle?

This is a lifeguard swimming in it. This is what our ocean is. The Mayor from Manasquan must realize that it is not just here, where this fellow swam, which is four miles away from Manasquan, but it is in Manasquan. The people in Long Beach Island, who thought they were immune to all of this, realize they have been swimming in Ciba-Geigy's outflow, and the skin rashes I am going to report to you, and some of the other toxic problems I am going to report to you, that happened to these people, are happening. They are not immune to it in Monmouth County, and neither is Wildwood, which had people come down with terrible things -- Salmonella and Hepatitis. It is a nationwide problem; it is a global problem; it is a problem which should inspire a national consciousness here in New Jersey, because we do not own the ocean. Our people are suffering; our everything is suffering, but mostly our health.

I think there is a time, and I think we have reached the time, that the industries which have helped New Jersey grow -- like Ciba-Geigy, like IFF, like all these 10 worst -- can become the 10 best. I am looking for the right industry to come forward and say, "We have had enough of the fines, enough

of the bad press, and we want to turn this around." Industry can, and must, live in this State together with people. They can still make money, and they can still be in the public's best interest and their best interest.

So, I'm saying: Instead of pointing fingers, let's stop the pollution, stop the fines, and work together with the Legislature. Get your reports, Senators, and give the reports to the press. Make this a model State. They have done it in other states. They have done it with the salmon rivers up in Oregon. Why can't be do it here? Because the people never asked for it. The people are demanding it now. If the people aren't demanding it, tourism certainly will.

This is a woman from Minnimata holding her child. This was taken from "Life" magazine. When I first started doing this five years ago, I realized that I remembered something about my mother telling me not to eat tuna fish while I was at the beach -- at Bradley Beach. "Why not, Ma, I love tuna." Something happened in Japan. They put methylmercury into the water, in a place which looked not unsimilar to Sandy Hook Bay. The methylmercury got into the water column, and the people ate the tuna fish and the shellfish. There is methylmercury in the water column out there near New York, and this should never be forgotten, as Hiroshima should not be forgotten, because our country has had its Love Canal and its Times Beach. What makes this State unique, other than Times Beach and Love Canal, is that there are 20 million people living on the shore who are integrally related to what happens here in the ocean.

Seaside Heights, near Ciba-Geigy. That could be any one of us years ago, any of your children or my children, or any of our children to come. I want my sons to live in New Jersey and to be happy and healthy with their children in New Jersey. The reason I want that is because as a father, I want to be near my family. When your children grow up, and they

say, "Dad, we can't live here. My wife is afraid to. Dad, it's cleaner someplace else, and I really want to enjoy it," you will be saddened and sickened.

We can do something about it. If we couldn't, I would be gone. I think we would all be gone. But we have to start someplace. So I'm asking the Senators here today to go to the Assembly, to go to the Senate, and to go to the Governor. I would be happy, for one, and I am sure there are other people who would be happy to meet at a joint meeting of the Legislature and the Governor, to make this a primary directive of our State, before it is too late.

That is the end of the slides. I want to show you a quick video, Senators. I don't think anyone else will be able to see it, but it is important that you see it. It points out what everything I have been talking about looks like. (witness presents his videotape)

Senator Pallone, if you will just bear with me for two more minutes, I want to give the remainder of the presentation to you gentlemen. This is what Save Our Shores did: We went to DEP and to the Medical Society. We told them there is a problem we have seen. I am a dentist, so I am not in a position to-- I still take a medical history of every patient who comes into my office. I check for oral cancer. When I do the histories, people say, "Well, the kids are all sick -- ears, eyes, nose, and throat infections. The pediatrician says since they were all swimming in the ocean, it is probably from the water."

I thought that if we could get together with the physicians, we would find that there was some correlation. So, we got together with physicians throughout the State. We got together with people who sent in letters documenting things as well as they could. It is not a scientific documentation, but these letters are from rational people. We documented these cases and the cities from where these problems came. They

again reiterate the places and the bight apex of where the pollution comes from in the various cities.

Now I will show you the various diseases. (witness using charts to demonstrate) We found from Sandy Hook to Sea Bright to Rumson to Long Branch, Elberon, Deal, Allenhurst, Loch Arbour, Asbury Park, Ocean Grove, Bradley Beach, Avalon, Shark River, Belmar, Spring Lake, Manasquan, Point Pleasant, Brick Town, Bay Head, Lavallette, Ortley Beach, Seaside Heights, Seaside, Long Beach Island, Beach Haven, Ocean City, Wildwood, Cape May, and Wildwood Crest, areas of clusters of diseases. The first of these was gastroenteritis. There are some excerpts of letters -- which we will leave with you, Senators -- which you must read, from rational people, telling us how they got what they got, and what their physicians said.

This is the tip of the iceberg, gentlemen. Another disease -- eye symptoms. Well, we have had conjunctivitis around, but every time I swam in the water this year I got conjunctivitis, and I never had it before. Here again are the cities. We found 29 eye symptoms -- infections, conjunctivitis -- seen by physicians, most of the time.

Another disease -- urinary tract symptoms. Well, the (indiscernible) test is for bacteria which are only found in the intestines, and this is only one test. We do not feel the test will cover any of the other bacteria and viruses in the water. We're saying, we want a test designed to prove that there is reason to either do something about it, or to tell people, "Don't swim here on this particular beach this day," or this week, "because you may become ill." Urinary tract symptoms-- There was one little child, whose first physician told her mother, "Well, she must be masturbating" -- an infant. She went to a gynecologist, and it was found that bacteria was found in the water.

Ear symptoms: There have been 47 cases of ear symptoms throughout the State, with clusters found off beaches

like Long Beach Island -- where there is a Ciba-Geigy -- at Ortley Beach, at Sandy Hook, and at Wildwood.

Vaginitis has been reported by women-- You must understand that for someone to write a letter, besides the physician, to state that this is what the problem was, is very difficult.

Skin symptoms: I'm talking about rashes and infections when you come out of the water. Things have been seen by physicians. A lot of these clusters happened again by the pipes from Ciba-Geigy up here in Sandy Hook. You must remember that many people live at the Jersey shore know better, and they don't swim, or they go to pools. The tourists come here to swim, and they go home to their family physicians, and they don't come back sometimes. That has escaped all of the thinking processes here. It is not the local physicians who are seeing this so much; it is the physicians from various parts of the State.

Throat and respiratory symptoms: Finally, we deal with 101 of these, again in clusters throughout the State.

I know I have taken up a lot of your time, and I know I can't read very well. I am going to pass some materials out to you, but I have just a small quote: "I am angry at the condition of our beautiful beaches. Sewage on the beach, sewage in the water, and harsh chemicals all over make me sick literally. The summer my son was five years old, he was taken to the Jersey shore, where I grew up, only to find the beaches closed to swimming because of sewage in the water. My son was disappointed, and asked me questions I couldn't answer. I only hope he understands some day, and that we can solve the problem before he is an adult."

Save Our Shores is asking the Senate to help provide the funding for this. We need more than \$100,000. We may need \$3 million. But if this isn't a priority, then I don't believe anything else is, because you can't close this, or isolate this, like Times Beach or Love Canal.

SENATOR PALLONE: Dr. Sternberg, I don't mean to interrupt you, but I wanted to specifically ask about that before you finish, because I know Bill Librizzi mentioned it. Just give me an idea. I know you have had discussions with DEP, and I talked to one of your associates about increased funding for this study.

DR. STERNBERG: Yes.

SENATOR PALLONE: I just want you to basically outline, you know, the schedule-- Well, first of all, have you agreed with DEP on a schedule in terms of doing the study, and what do you anticipate the costs will be? I am willing, and I am sure the Committee members are willing, to look into additional funding. I am not clear at this point about what really needs to be done.

DR. STERNBERG: Okay. The study we talked about at the Medical Society, at which the Medical Society, I believe, concurred, as well as DEP, was warranted after the same information -- similar information -- was presented as I presented here to you today. We want this study to take place this summer, because time is of the essence, and because time is running out, and because we have time now to plan the study.

This is the suggested preliminary skeleton format of Save Our Shores.

SENATOR PALLONE: The document you have given us here?

DR. STERNBERG: This is the document, which I will introduce into the record for you to take with you. "Objective and Purpose: To produce a valid, timely, and meaningful understanding of the health risks to humans who have had contact with the ocean. The results of this study to be produced by December, 1987" -- the end of the swimming year.

SENATOR PALLONE: So, the test would be taken during the summer months of '87, and then we would have the results by December?

DR. STERNBERG: Hopefully, but at least before the next swimming season.

SENATOR PALLONE: Okay.

DR. STERNBERG: "These results will be in simple terms. The recommended terms will be in percentage form." We want to work with DEP.

SENATOR PALLONE: Al right. Has the-- We will ask Bill, because he is going to get back up again, but have you come to an agreement with them about this?

DR. STERNBERG: Not yet.

SENATOR PALLONE: All right. What about the funding? I know the Commissioner talked about spending about \$90,000 internally, and you seem to think -- or your group seems to think -- that we need to spend significantly more, and that perhaps there should be an appropriation for that.

DR. STERNBERG: I think there must be an appropriation -- understanding the enormous work that has to be done -- to make the study small and understandable. Pick target cities; pick targets like the ones we have suggested here. Don't do them every day, but make sure that when they are studied, they are studied on a day when there is a west wind, when there is sun and people are swimming, and on a day when there is an east wind.

SENATOR PALLONE: How much are we talking about, do you think -- ball park?

DR. STERNBERG: I think maybe \$3 million, although I could be wrong.

SENATOR PALLONE: I'm not laughing, you may be right. I am just saying-- I spoke to one of your associates -- I forget his name now; I apologize -- and he indicated maybe as much as a million. But, \$3 million, that's--

DR. STERNBERG: If it's a million and it works, wonderful. What I'm saying is, whatever it takes--

SENATOR PALLONE: Yeah.

DR. STERNBERG: --is necessary. We are faced with a major problem to the residents and health of the people of this State. Whatever it is has to be taken care of.

SENATOR PALLONE: All right. Well, we can ask Bill again when he gets back up, what he has in mind. But I think I understand what you have in mind. You have given us the documentation on that.

SENATOR GAGLIANO: Excuse me, Doctor, what you're asking for is a series of tests of the water and the people who have used the water.

DR. STERNBERG: Yes.

SENATOR GAGLIANO: Wouldn't that be basically health-oriented -- oriented toward the Department of Health?

DR. STERNBERG: What we want to do, because we don't feel that the problems here are just shown by coliforms-- We have gathered together a band of scientists. We want DEP, EPA, State government to get any scientists who would be willing to help. There is more than just one organism that causes ill health in our systems.

What we are saying here is, don't waste all this to say, "We found that this had coliform and that had coliform," which may be totally inadequate. As it is, we accept 50 coliform per millimeter as being the norm. New York's is 1500. Some places may say 2000. In the tanks in Disneyland -- in the Living Sea -- they accept two from the porpoises. Okay?

So, what I'm saying is, we want this to work, not just for the one organism, but we want to touch upon all of the organisms and whatever viruses we can, and we want heavy metal samples, because to ignore the fact that the fish chain and the food chain are contaminated, and that heavy metals may be causing some of these rashes, will not help to add to whatever this study can give us. We want a comprehensive study of the problems that make people ill.

SENATOR PALLONE: All right, I appreciate that.

DR. STERNBERG: We hope that by doing that, we will bring attention to this drastic problem. We really have to stress, also, that we feel, at Save Our Shores, that the health

risks to the State are going to continue and the monetary costs that are coming about are going to continue, until ocean dumping ceases. I feel -- as Senator Gagliano, as you yourself, Senator Pallone, and Senator Van Wagner have said, you people must be informed regularly. You must be given a skeletal outline. If they don't give it to you, they damned sure better make one.

Thank you very much, gentlemen.

SENATOR PALLONE: I appreciate your presentation. I think you pointed out very well all the different problems we face. Diagrams, in particular, show the different ocean dumping sites, many of which we won't even get into today. There really is a problem of great magnitude out there. We are really just touching on it.

DR. STERNBERG: Thank you very much.

SENATOR PALLONE: Thanks again. (applause) Okay, we have two more people who I know have to leave. At least one of them has agreed to be pretty fast -- Dr. Mytelka, from the Interstate Sanitation Commission, who again has been very cooperative with this Committee, and has responded to a lot of the concerns which were brought up at prior hearings. Thank you, Doctor.

D R. A L A N I. M Y T E L K A: Thank you, Senator Pallone. Mr. Chairman and members of the Commission: I am Dr. Alan I. Mytelka, Director and Chief Engineer of the Interstate Sanitation Commission--

SENATOR PALLONE: Before you start, let me just say once more, if there are people in the audience who have time deadlines, please indicate that to Gina here, or to Ray. We will try to accommodate you. Thank you, Doctor.

DR. MYTELKA: --an agency of the States of New York, New Jersey, and Connecticut, charged with interstate pollution abatement in the greater New York/New Jersey metropolitan area.

There are a few things I want to pick up on from your opening statement of what the status is. I will make this very brief. Woodbridge vs. New York City: As you indicated, we in the State of New Jersey have joined the suit against the City of New York. Unfortunately, Judge Stern retired, so there is a hiatus involved there in who the new judge is going to be. In the meantime, Magistrate Haneke is continuing on. We and the State's Attorney General's office are in the discovery phase, and our people, during the next couple of weeks, are going to be in New York City reviewing their documents in preparation for it.

So, although it is unfortunate that the presiding judge has left, we will continue as best we can with the judicial system as it is. Hopefully, there will be another judge assigned shortly. That is all I can say on that to bring you up to date on it.

SENATOR PALLONE: Doctor, may I ask you one thing? At the last meeting of the ISC, I know you were very instrumental in trying to have them adopt a resolution, and to deal with the whole problem of raw sewage coming from New York, or just in general. You indicated at the time that that was going to be pursued by the ISC. I was concerned myself, however, that the resolution wasn't adopted by the ISC at its meeting, and that therefore there seemed to be a period of three or four months with nothing happening. I would like you to update us on that.

DR. MYTELKA: Sure. There was a resolution before the Commission which, in some respects, would have given the Director, who happens at the moment to be myself, additional powers. There were some questions raised by some of the Commissioners as to whether that was what the Commission should or should not do. By and large, they seemed to be in agreement that it was a good idea. However, there were some technical points, in terms of the resolution as it was presented.

A committee of Commissioners -- as well as myself -- has been formed, and we will be meeting to discuss this issue to try to iron it out, so that at the next Commission meeting it can be brought before them.

SENATOR PALLONE: When will that be?

DR. MYTELKA: The next Commission meeting is the first Wednesday in March.

In addition, some administration procedures had to be worked out, so we are doing this all at once. I ought to point out, however, that we are not sitting back doing nothing, waiting for the next meeting. As you have indicated, the State of New York's DEC has reimposed a sewer ban moratorium on Staten Island, so that at least there will be no future or additional raw sewage going out. We still need to look at what, if anything, can be done to the present raw sewage that is going on, but at least whatever the problem is, it will not be exacerbated. And I think the DEC in New York ought to be commended for that. It was a difficult decision on their part.

SENATOR VAN WAGNER: What are they doing about Great Kills?

SENATOR GAGLIANO: Fresh Kills.

SENATOR VAN WAGNER: Fresh Kills. I don't like calling it Fresh Kills.

SENATOR GAGLIANO: They should change the name.

DR. MYTELKA: Well, it isn't very fresh any more; I will agree with you on that.

May I ask you, Senator, what do you mean, "What are they doing about it?" In what aspect, sir?

SENATOR VAN WAGNER: Well, I am happy to hear they are moving on sludge and that they have imposed a moratorium. We have had that going on now for several years -- moratoriums here and there along the way. I would just like to know what specific plan for mitigation has been developed by the Interstate Sanitation Commission -- specific plan regarding --

involving the jurisdictions that you are involved with, and what volume of reduction, or steps, are being taken to solve that? How soon will it be solved?

DR. MYTELKA: Okay. Regarding the Fresh Kills Landfill, which is the debris problem getting into the waters -- and I don't mean allegedly getting into the waters -- and not only getting onto the New Jersey shore, but also the New York beaches and into the district waters--

SENATOR VAN WAGNER: Sure, I am not being parochial.

DR. MYTELKA: No, I understand. We have, in our papers placed before the court when we asked to be admitted as a party to the case, made suggestions of things we wanted to pursue. The items included the following:

1) Additional fencing to be placed on so the debris doesn't wash into the Kills. There is certain fencing along the Fresh Kill Creek itself -- the Greater Fresh Kill and the Lesser, or smaller Fresh Kill. But along the Arthur Kill that fronts on the landfill, there is no fencing. That is an area we felt it ought to be put on, so that whatever material does blow when the wind blows from the east to the west, at least it will stop it before it gets into the waterway.

SENATOR GAGLIANO: Excuse me, Doctor. There is fencing on the New York side, on the side where Route 440 is, because I walked all along that fence. There is fencing there, although it has some holes in it.

DR. MYTELKA: There is fencing; that is correct. It is the other side I am talking about, where there is no fencing.

SENATOR GAGLIANO: I understand, and that's right on the water.

DR. MYTELKA: That is literally-- We think there ought to be fencing put on literally at the water's edge -- at the high tide water's edge.

SENATOR VAN WAGNER: But those barges are always overloaded.

DR. MYTELKA: I will get to that in a minute.

SENATOR VAN WAGNER: I would suspect that maybe you have to look at the rapidity at which waste is being landfilled. I don't know how mechanized they are out there. I know they have a methane operation. I know there have been some small attempts. I just wonder what you are doing about volume reduction.

DR. MYTELKA: Volume reduction is not within our purview. As a matter of fact, the amount of material going through the Fresh Kills area has increased, because the city has closed down their other landfills.

With regard to volume reduction -- and then I want to get back to other things we did in our court papers -- things we are asking the court for -- the Commission is in favor of resource recovery plants, much to the consternation of certainly many of the public. The only way you are going to cut down the use of the open dump, or Fresh Kills Landfill -- whatever you want to call it -- is through the resource recovery plants that are coming about in the city. That is a--

SENATOR VAN WAGNER: Are you talking about mass burning or selective burning?

DR. MYTELKA: At the present time, they are talking about as much paper separation, etc., as can be accomplished, which I am not hopeful--

SENATOR VAN WAGNER: That is not selective; that is not selective.

DR. MYTELKA: It is going to be essentially mass burning of all else, as I understand it at the moment at least.

SENATOR VAN WAGNER: Including plastics?

DR. MYTELKA: Including plastics, which may very well be the cause of some of the problems leading to increased dioxin, of course, coming out of these. At least that is their plan. It is not within our purview to either build or operate these plants. What we are attempting to do as parties to,

let's say, the Brooklyn Navy Yard facility, is to point out to the hearing officer, who then has to report to the Commissioner of DEC, who is going to be issuing the permit for the operation of that plant, that it should be built and operated in such a way as to minimize all of the environmental problems. There are not going to be zero environmental problems in the operation of any of these resource recovery plants, whether they are in New York or in New Jersey, but they certainly have to be minimized. Such things as: To the extent you can make separation before burning ought to be pursued; the temperature at which it is burned; the residence time; and the monitoring that needs to be done, including provisions for shutting them down if something goes haywire.

SENATOR VAN WAGNER: Do you have a regional siting plan shared by New York, New Jersey, and whoever else has looked at mass burning as an option?

DR. MYTELKA: The Commission does not have a plan. What we are doing, as part of our proceedings here, is to put down on a single map where the plants are and where they are proposed to be, so that when these environmental impact statements are done by the various communities, there will be a rational environmental statement done, in terms of looking at accumulative effects from all the present and proposed plants.

SENATOR VAN WAGNER: But what I am getting at, Doctor, is, as an Interstate Commission, has the Commission recommended to either Governor of either state, a siting plan based on all of the factors you mentioned and, in addition, on the densities of populations that might be affected, assuming that resource recovery is, in effect, going to take place? Resource recovery, as you and I know, is a fancy name for the mass burning of garbage.

DR. MYTELKA: That is correct. In a single word, the answer is no. We have not come up with a recommended plan for this. Something I want to get into in a minute, if I may, has to do with sludge--

SENATOR VAN WAGNER: Do you think you ought to?

DR. MYTELKA: I think we ought to.

SENATOR VAN WAGNER: Okay, thank you.

DR. MYTELKA: I am making some notes here on this. Not alone -- as an agency alone -- but I think in conjunction with the environmental departments of two states. I would put that in, because there are enough bureaucratic problems as it is, without exacerbating problems. I would add that.

SENATOR VAN WAGNER: I wouldn't suggest that you go outside procedure.

DR. MYTELKA: Let me just finish, for a moment, some of the aspects of Fresh Kills which you asked about, and then I want to get into a sludge study we did in the mid-'70s. I then want to send the Committee what our report was, because I think some of it is still applicable today.

SENATOR VAN WAGNER: Still significant.

DR. MYTELKA: Still significant, I believe. The other thing we asked the judge for was that whatever other means they put in in the future -- whether you call them "Star Wars" or not; that was their terminology -- the city's terminology -- there are present booms there which don't work very well. It seems that at least one of the things that ought to be pursued as rapidly as possible, is the putting of netting down beneath the boom, to keep these materials -- not all of which float at the surface; some of them are partially submerged -- within that containment area. That is certainly something that we--

SENATOR VAN WAGNER: You're talking about the drag lines?

DR. MYTELKA: Pardon me?

SENATOR VAN WAGNER: The cranes -- the drag lines.

DR. MYTELKA: Well, right now what they have is a boat that they open and close manually whenever the operator so desires. There certainly ought to be someone there 24 hours a day manning these boats, but when they do open them and close

them, it should not be just like you've got a surface boom, which is essentially an oil-retention boom. It should have, call them drag lines, call it netting, weighted netting, whatever you wish, that goes down essentially to the bottom, so that when these things are in a closed position, the materials which are partially submerged don't float out. Some of it, I do believe, floats out now. That is one of the things that could be done, at not too great an expense. It could be done in a reasonably rapid period of time.

One other item we suggested, which--

SENATOR GAGLIANO: Doctor, excuse me. When we had testimony on this up in Woodbridge, the person who was in charge of Fresh Kills -- the Administrator for the City of New York -- talked about the answer coming about as a result of the Star Wars proposal, which is going to cost millions of dollars, and is going to take a hell of a lot more time, before it is done. I said at the time -- and I still say -- that you could probably do just as well with a Coast Guard chief petty officer, boatswain's mate, or a second lieutenant with good deck experience, who could come up with a netting system which would work, probably, 95%, and not interfere with navigation. I don't think New York is interested. I think they just want to do this thing and have pictures and show this multi-million-dollar operation, which I don't think is going to work at all.

DR. MYTELKA: Well, since we are currently engaged in litigation with them, I don't want to comment on that--

SENATOR GAGLIANO: I understand. I don't think I will have to testify, but you may.

DR. MYTELKA: --other than to say, since I or my staff may very well be testifying there, what we asked for, besides whatever else is done in the future -- whether it be fancy, calling it Star Wars, or whatever they wish to call it-- In the meantime, there are things that can be done. We are

interested in getting things done as rapidly as possible, as soon as we can get this implemented. What you mentioned at the hearing, and the things we have asked for there, certainly can be done at a lower cost, in a real -- I call it a real-time situation, once we get this court suit under way and heard again before the judge, and get some orders from him.

One other thing the Commission asked for -- and this concerns the transfer station -- the enclosed transfer station -- which the city itself offered to do -- volunteered to do -- several years ago, but on which nothing has been done-- While the judge -- the magistrate or the judge -- had asked for certain evidence, the evidence is that nothing is there. I mean, that is why you know it is not there.

What we suggested to the court was that a receiver be appointed to build this. We offered the services of the Commission, if the judge felt so inclined, as the receiver. It was not an idle offer. Some of the Commissioners said, "Do you really want to do this?" and I said, "Well, we would much prefer to have the city build it. Nonetheless, if the city is not going to build it, it needs to be built. Get a receiver, which would then have first call on the revenues of the City of New York, and get it built." If the court wants to, the Commission would be perfectly willing to act as receiver to see that it got built. We are not building it, obviously, with our own hands. We would go out and get the expertise and get it built. But we would see that it was done.

Whether that comes to be or not I think will depend on how the litigation goes. But, we certainly are serious in suggesting that to the court, that a receiver be appointed, and that the Commission be the receiver.

SENATOR VAN WAGNER: Where would you build it?

DR. MYTELKA: Right where it is. I say right where it is, but at the unloading location at Fresh Kills. Fresh Kills will be used, whether it is for garbage or for one of the

resource recovery plants -- a mass burning incinerator, if you will -- which is tentatively to be located there. It is going to be there for the next 15 to 20 years, regardless of what anyone says. At least that is my opinion. I may be proven wrong. Twenty years ago they said they didn't want to do any more there, because it was only going to be for another five to ten years. Twenty years later, and now with the Commission-- I guess time flies.

SENATOR VAN WAGNER: Okay. Do you think it will be built before they finish improving the highway out to Kennedy Airport? Do you expect a faster track than that.

DR. MYTELKA: I won't comment on that.

SENATOR PALLONE: Let me just-- I saw the Staten Island contingent raising its eyebrows when you mentioned the long use of Fresh Kills.

DR. MYTELKA: I am calling it the way I see it.

SENATOR PALLONE: Let me ask you -- because I know we are running out of time-- I am a little concerned about the status of this lawsuit. You know, you indicated to me that Judge Stern, I guess, is retired, or has left the bench.

DR. MYTELKA: Well, he retired. He indicated that financially he needed to retire.

SENATOR PALLONE: Give me a schedule of what is going on. We know you are part of the suit. We're glad you are; we're glad the AG has joined it. Where are we going? I mean, what are we talking about in terms of a schedule? Is this going to drag on for another two years, or what are we talking about?

DR. MYTELKA: I spoke to our counsel just before I came here, figuring that I was going to be asked that question. What is the schedule? I don't have an answer for you.

SENATOR PALLONE: You're in discovery, you said, right now.

DR. MYTELKA: Well, we are in discovery. We are going through what records they have. I am hopeful that sometime early this spring we can dispose of a number of these problems through an order of the judge, with agreement by the City and ourselves, and get--

SENATOR PALLONE: See, the reason I am concerned--

SENATOR GAGLIANO: Is it assigned to a judge now?

DR. MYTELKA: It was. Well--

SENATOR GAGLIANO: I know it was Judge Stern. Has it now been assigned to another District Court judge?

DR. MYTELKA: There has not been a replacement. To the best of my knowledge as of yesterday, another judge-- Magistrate Haneke, who is handling things on a day-to-day basis, is continuing on. To the best of my knowledge, a new judge has not been assigned to the case.

SENATOR GAGLIANO: Would it -- and I am an attorney-- Wouldn't it make sense for your counsel, and also the Attorney General, to petition the Chief Judge of the United States District Court for New Jersey, and request that a judge be appointed immediately to take the place of Judge Stern, and that that judge be asked to put this on a priority basis, so that a hearing can be held promptly, and not get into a situation where a year from now we are going to be asking whether or not a judge has been assigned? Probably not too many judges want this case, but that is not our problem.

I think it should be assigned to a judge, and that judge should be told by his superior -- not by us, we can't-- You know, with the separation of powers, we can't tell them what to do or when to do it. But it seems to me that it should be assigned to a judge, and the Chief Judge of the U.S. District Court should give that judge a requirement that a timetable be set, because I think we are going to be here a year from now. This is exactly what New York wants. You know, they want this thing to be 500 and some feet high. That is the

way it is going to be, as far as they are concerned. That is only governed by the amount of the grade that trucks can carry the garbage.

DR. MYTELKA: Based on the land area, I understand.

SENATOR GAGLIANO: Right. That is what New York City wants. They want every kind of delay they can throw down in front of us. That's ridiculous, because we all know that Fresh Kills has to be brought under control. I went there one day. I was watching the cranes work, and the stuff was being dumped overboard as it came out-- These huge cranes come down, pick up a whole crane-ful, and as it comes--

SENATOR VAN WAGNER: They call them buckets.

SENATOR GAGLIANO: --bucketful, and as it comes over to put it into the trucks, it drops out the sides and into the water. It happens all day, everyday. That material then ends up in our waters, and in New York's waters.

SENATOR PALLONE: The problem, Doctor--

DR. MYTELKA: I am not going to say something where I don't have it in my command to deliver. I can't tell you what the Administrative Assignment Judge is going to do. We will bring it-- I will make sure my staff brings it to their attention, and we will do all we can to have a new judge assigned as rapidly as possible. That I can do.

SENATOR PALLONE: I think, also, along with what you said, Senator, maybe we could send a letter to the Attorney General, requesting the same thing.

SENATOR GAGLIANO: Right.

SENATOR PALLONE: There is an order outstanding that they are violating, Doctor. I know you are aware of it -- and I don't mean to raise my voice-- But, we are talking about an order that is outstanding, that is not being followed.

SENATOR GAGLIANO: For years.

SENATOR PALLONE: It seems to me that the AG, the ISC, and the parties to this case, you know, have an obligation to

say, "Look, the order is not being met. What is going on? What is the court going to do about it?"

DR. MYTELKA: When I get back to my shop, as I said, I can look into it, and cause my staff to move and do what we can do. We will do all that we can do.

SENATOR PALLONE: And, Bill, we would like the AG to do the same thing. We will send a letter to that effect.

MR. LIBRIZZI (speaking from audience): I have made a note of it.

SENATOR PALLONE: Okay. The second thing, about the raw sewage again, because I know this is the background of what we have done before, do I have any reason to believe that there is going to be a problem when this comes up again in March, to have the ISC do this investigation of the raw sewage? I know the moratorium is back in Tottenville (phonetic spelling), but we still have the raw sewage coming from past experience. Is there anything we can do, or is there any way we can make sure that the ISC decides to put a handle on this and deal with this at their March meeting, because I don't want to delay any more?

DR. MYTELKA: As Director, I personally hope there is no problem, because then it becomes my problem as well. Let me get back to you, Senator, as to whether I think anything can be done.

SENATOR PALLONE: Because to me it is very important.

DR. MYTELKA: I understand. I will be having a meeting with my Executive Committee shortly -- the Committee involved in this. I will bring your and the Committee's concern about this to them. I will get back to you if anything else can be useful. I would like to leave it that way.

SENATOR PALLONE: Okay.

SENATOR VAN WAGNER: You know, I'll tell you, I guess I take a very fundamental view of everything. I don't mean to be that way but, of course, with Star Wars and all that stuff, you know, I-- But, I worked in the solid waste business. I

worked for a mining company, and I am familiar with the regulations, at least here in New Jersey. I went to garbage school. Believe it or not, the University of Wisconsin has a garbage school you can go to, if you pay.

What troubles me is, you know, I hear Senator Gagliano talking about making sure we get the judge there, and you have this case against the City of New York, and New Jersey-- You know, you would think we were warring nations when you hear about this issue. Yet, here we had a man testify about the health hazards that have developed. For years we have heard from people -- clean water coalitions and ocean action coalitions and fishermen groups and everybody -- about the problems. You know, it's nothing new.

Don't the New York State regulations require little things like covering daily, litter control, blowing paper? Aren't there fines imposed for that, or is the City of New York exempt? You know, in New Jersey, if a landfill operator doesn't cover his or her landfill on a daily basis with intermediate cover, a DEP person from New Jersey is sitting there at the end of the day to check that out. They get fined \$500 a day for protruding garbage, forget about litter. For protruding garbage, they take up to-- Some fines are \$25,000 a day.

Now, all of this time that this is going on, do you have the power to impose penalties?

DR. MYTELKA: No.

SENATOR VAN WAGNER: You don't? Do you have the power to recommend the imposition of penalties? Does the DEC in New York have the power to impose penalties?

DR. MYTELKA: The DEC does have the power. Of course, the laws are on the books. It is one of implementing the laws, as is so often the case.

SENATOR VAN WAGNER: How about a fine? Does that implement the law? How about a list of fines that this city

should take? You know, when DEP in New Jersey found that various sewer and water authorities in this State weren't complying, they went through a horrendous exercise, but those sewer and water authorities, under penalty -- even though they were quasi-public agencies -- under threatening penalties, went ahead and spent huge amounts of money -- all right? -- instead of facing those penalties. I can't believe that the City of New York would just totally ignore penalties levied on it by the State of New York. That I can't believe. And, if that has happened, then maybe we ought to look into it.

DR. MYTELKA: Well, the state has the ability to fine the city. I can't talk for the state. We are a separate, independent agency. I can tell you that the state has the ability, on paper, to levy the fines. Whether they have or not is another issue. Quite frankly, I think at this time, I do not want to comment on that. I heard what you said. I will let the people who ought to know, know what the Committee's and your particular thoughts are, Senator -- know about it -- but I think that on this issue, I don't want to say any more at the present time. I really can't.

SENATOR VAN WAGNER: I understand, okay. My purpose was not to put you on the spot.

DR. MYTELKA: No, that's okay, you can put me on the spot.

SENATOR GAGLIANO: I think Dr. Mytelka has been very responsive to this Committee, and I appreciate that.

SENATOR VAN WAGNER: You have to.

SENATOR GAGLIANO: I would like to point out, though, that there is a companion problem with the fact that if the lawsuit doesn't go forward, I'm sure that the City of New York-- Part of their defense to DEC coming down on them is, "Well, we are in court." So, we have to wait until the court process goes on. The best thing they can have happen to them is that the court never hears the case.

If I may change the subject--

SENATOR VAN WAGNER: From garbage?

SENATOR GAGLIANO: From garbage, back to sewer and storm drains. I was advised by someone that many North Jersey municipalities, and the City of New York and the boroughs, have basically a single system storm drain sewer system, unlike, for example-- I see representatives here from the Northeast Monmouth County Sewerage Authority, who have done a fantastic job, in every respect, in taking care of our sewerage problems, I feel, as do others. There is a single system that carries the sewerage and the storm drain water. Is that so?

DR. MYTELKA: Well, throughout most of northern New Jersey and New York City, there is what is called "a combined sewer system," whereby the rainfall that enters the roads and runs into the sewers and the domestic sewage goes to a single pipe. During dry weather, when there is no rainfall or extraneous water, it all goes to the treatment plant. During periods of precipitation or melting of snow, in order to keep a treatment plant from being inundated hydraulically, there are relief valves, which are called "regulators," which release not only the storm water, but also the sewage that is in the sewers, and send parts of the release into the receding waters. That is true.

One of the things I want to mention today is, at the present time, there is no single map that exists showing what the layout of these are throughout the region. There are bits and pieces. By this April, the Commission expects the release of a report which, among other things, will have in it the locations of where each of these outfalls are. There are over 1000 of them, by the way, in our district.

SENATOR GAGLIANO: Over 1000 locations--

DR. MYTELKA: Locations.

SENATOR GAGLIANO: --where, in times of rain, there is a release directly into the water courses in and around New York?

DR. MYTELKA: That is correct.

SENATOR GAGLIANO: And New Jersey.

DR. MYTELKA: That is correct. Right now--

SENATOR GAGLIANO: I didn't know this, and I don't think 5% or 10% of the people of this State, or of the City of New York, are cognizant of that.

DR. MYTELKA: Well, for 15 years, our Commission has said it is a major problem, and for 14, or 13 years, we heard it is not a problem, because nobody wanted to face the issue. For the last year or two, there has been recognition at all levels of government -- and I will just leave it at that -- from the Federal on down -- that it is a major problem. It becomes proportionately more and more of a problem as we get on-line more and more of the secondary treatment plants, because the biggest residual problem is the runoff, whether it be called "main point source" -- if it just runs from the land directly in -- or it is a "point source" because it goes into the collection system and then goes out.

The combined sewers are a major problem, and in order to be able to solve -- if not solve them, at least mitigate the problem -- we need to have on one map where they are, so you can plan, from a regional point of view, how you are going to attack the problem. If it is done a little bit here and a little bit there and a little bit someplace else, you are not going to get any bang for the buck.

Our report will be coming out in April. It sounds very mundane. It is an inventory, really, but that has to be the first step from a regional point of view.

SENATOR GAGLIANO: Your Commission has hired people to do that -- retained consultants?

DR. MYTELKA: We have not retained-- I have bits and pieces of time of some of my people who know what they are doing. That is why it has taken us two years to do it. I wish I had the funding, quite frankly, to have a larger staff to do

it. We are doing this-- The DEP in New Jersey and the DEC in New York are aware of what we are doing, and we do get together from time to time to keep them advised of it. So, it is not just being done by us in isolation. Things go better when it is done on a coordinated basis.

But, the Commission itself will be issuing the report, and will bear the responsibility for all of the omissions and errors in it.

SENATOR GAGLIANO: We would like to have copies of that, I'm sure.

DR. MYTELKA: I certainly will make them available.

SENATOR PALLONE: Yes, please. I am going to have to cut you off, though, Doctor, because we have to move on.

DR. MYTELKA: Okay.

SENATOR PALLONE: I see that we have gone from eliminating ISC's funding to increasing it now. Is that--

DR. MYTELKA: Oh, I hope so. I may be back to you yet at appropriations time, to ask you why we are not getting it.

SENATOR PALLONE: All right, thanks again. We'll see. I know there are three people who have to get out of here -- already want to be out of here -- but I would just like to get them on quickly. Dr. Mary Buzby, if you could just-- And I don't want Bill to leave, because I want to ask him some questions before he leaves. Mary, if you could just, like, in a couple of minutes-- What we want to know, if you can tell us, is what the Rahway Valley Sewerage Authority is doing in terms of meeting the timetable for the 106-mile site. That is really what I want to know, if possible.

D R. M A R Y B U Z B Y: We are on our way. We've signed a contract with--

SENATOR PALLONE: Let me introduce you first. This is Mary Buzby. You're the--

DR. BUZBY: I am Dr. Mary Buzby from the Rahway Valley Sewerage Authority.

SENATOR PALLONE: Okay.

DR. BUZBY: I am the Director of Industrial Operations.

SENATOR PALLONE: That is one of the six authorities that dumps at the--

DR. BUZBY: Yes, we are one of the six ocean dumpers. Okay? We have joined together with the other five regional sewerage authorities, and have contracted with the ocean dumping corporation, which is called "The 106 Dumpers," to take our sludge out -- 25% at this time, and 100% after -- I thought it was January 1 -- at January 1, 1987.

SENATOR PALLONE: So, 25% is already being dumped at the 106-mile site now.

DR. BUZBY: We are contracted to do that.

SENATOR PALLONE: It's happening right now?

DR. BUZBY: No. Actually, I do not think it is happening right now. We are contracted to take 25% out before the end of the year. The dumper is waiting for his ship to come, and he is going to switch to 100%, I believe, in October, or September, to make up the 25% at the end of the year, if you get the picture.

SENATOR PALLONE: So, the 25% was for '86?

DR. BUZBY: Yes.

SENATOR PALLONE: Okay, but it is not being met because of the problem with the vessel?

DR. BUZBY: Right. That is my understanding.

SENATOR PALLONE: Okay. You don't perceive any problem with having that schedule met?

DR. BUZBY: No. They guarantee-- They assure us they are going to do it.

SENATOR PALLONE: It has all been contracted?

DR. BUZBY: Yes.

SENATOR PALLONE: Okay. Do you want to just add anything? I didn't mean to cut you off.

DR. BUZBY: Yes, I do. I came for several reasons.

SENATOR PALLONE: Because we have to get to Bill.

DR. BUZBY: This is going to be off-the-cuff here, okay? One thing I want to talk about is the-- I realize that we did not participate in your other hearings, but we want to make a definite statement about the plastics you are finding on the beaches. It is a common perception that these materials are a result of dumping sludge at the 12-mile site. In fact, there is nothing in our sludge that you could identify as an artifact of wastewater, if you saw it. Our sludge, prior to being discharged, is blended, homogenized, thickened, chopped -- completely homogenized and stabilized before it is discharged.

The citizens complain about sanitary products and brown surf, and they certainly deserve to. These are disgusting problems. But what is causing the problem, in our opinion, is storm water. At the beginning of a rainstorm -- and it is essential that the citizens of New Jersey realize this, and they don't -- the quality of storm water from urban and suburban areas is very similar to raw sewage. It contains animal droppings, lead and oil from cars, highway salt, fertilizers, pesticides, dirt and sand, litter, and fallen leaves. In most communities, the storm systems are built under the streets and are discharged, completely untreated, directly into the nearest receiving water.

So, any citizen of New Jersey who fails to clean up his pet's droppings, who removes his car emissions control devices, who drops cigarette butts, plastic cups, straws, six-pack holders, dumps oil or antifreeze in the sewer, uses fertilizer because he has to have a picture-perfect lawn in a State that was meant to be a forest, is part of the problem.

SENATOR PALLONE: Okay, thank you.

DR. BUZBY: The second major contributor is storm water overflows, which you touched upon. Storm water overflows occur when a good sanitary sewer system -- and I am not even

talking about combined sewers, which are a definite problem; these are the separate systems -- when a good sanitary sewer system is overloaded during rainstorms due to leaks and illegal connections. Sanitary sewers are designed to carry only sanitary industrial wastewater. Theoretically, the flow should not go up when a rain starts. It does. Buildings have basement drains, sump pumps, downspouts connected to sanitary sewers. When rain from these sources enters the sanitary sewer, it can overflow anywhere. They are just discharging to prevent flooding in basements. The overflows are completely uncontrolled and contain the entire range of things that you would identify as wastewater. Any homeowner, therefore, who has a storm water connection, a sump pump into the sanitary sewer, a French drain tied to the sanitary sewer -- and we find this very common in houses built through the '50s and early '60s -- is part of the problem.

So, the most obvious manifestation of storm water overflows is the volume and variety of plastics we find on the beaches. Many of these plastics are from sanitary products. Automatically, the citizens -- and they are justified in assuming they are coming from sewage sludge-- They are not, but it is a reasonable connection they are making. In fact, it is not true. We have treatment plants for screens, traps, grinders, acetylene tanks, skimmers, to remove all these materials from our effluence and our sludges. However--

SENATOR PALLONE: But the only thing, Dr. Buzby, is that a lot of the sewage treatment plants may not be at the same level and high technology that you have.

DR. BUZBY: Well, that's true. That's right. Our reason for bringing the subject of plastics into the discussion, is to make it clear that no matter how good your treatment plant is, any removal system is not 100% effective. Plastics were not an issue when treatment plants were designed. There is no completely effective way to remove plastics from wastewater treatment plants.

SENATOR VAN WAGNER: Are you saying we should start looking at the construction and development of storm water systems, aside from our sanitary systems?

DR. BUZBY: Well, I think a better and a more immediately reachable starting point would be to educate the public to these problems.

SENATOR PALLONE: Well, that is what we would like to see, but--

DR. BUZBY: Because people have to realize that--

SENATOR VAN WAGNER: Doctor, let me just say, I understand that. We have to begin it in kindergarten. We are going to have people here from industries today, who are going to say, "It's really not us, you know. It's really that people ought to have a disposal lesson." Ultimately, we are going to teach them, through the next hopefully close few generations.

But now -- what about now? How do we take steps now to begin to mitigate?

DR. BUZBY: The first thing is, the Rahway Valley Sewerage Authority endorses any efforts you have to address the problem of plastics. It is our position that many of these plastic products we are finding on our beaches, do not need to exist in plastic. It is time for us to realize that we do not need some of these conveniences. We are paying a great price for them.

We have heard some rumors that industry is saying that plastics are treatable in treatment plants. We don't agree, and we just came to tell you that.

SENATOR PALLONE: The bottom line is, there are some treatment plants that are not at the level you are--

DR. BUZBY: There's no doubt about it.

SENATOR PALLONE: --and they may be passing through a lot of these materials.

DR. BUZBY: Exactly. Storm water is an enormous problem, but we do have to start thinking about it. One thing

that comes to mind is, you could begin to treat the first rush of storm water in some way, which would be an enormous engineering, and then let the rest go--

SENATOR PALLONE: We have a lot of engineers out there all waiting to get at it. There is a load of talent in this State.

DR. BUZBY: Now, in closing, I just want to say--

SENATOR PALLONE: You know, all you have to do is focus it -- direct it.

DR. BUZBY: Right. Oh, you're right, we can do anything.

SENATOR VAN WAGNER: And put a few bucks into it.

DR. BUZBY: That is one thing, too, that people in New Jersey have to realize -- that sewerage and drinking water have been artificially inexpensive. These are big technical issues now, and they are going to cost big bucks. People will have to be ready to pay what they pay for milk, for water.

SENATOR VAN WAGNER: And we have to realize, we are the third smallest state in the union, and we have literally run out of space.

DR. BUZBY: One more thing I wanted to say about the big push: We heard also about ocean dumping. In 1980, there was an enormous push to end ocean dumping. The bottom line that came of it, is that ocean dumping for these six large sewerage authorities is the best alternative in New Jersey at this point in time.

SENATOR PALLONE: Well, you have to explain that to me, because that was my last question. All right, we're moving to 106 miles, and you said you are going to meet the deadline of December '87. You have made no plans for beyond?

DR. BUZBY: Rahway Valley built, in 1980 -- and it was completed in maybe '83 or '84 -- an \$8 million sludge dewatering plant, which is at our plant now, and is in mothballs. It costs us \$50,000 a year to own it.

SENATOR VAN WAGNER: Where do you send the water from the sludge?

DR. BUZBY: We don't do anything with it. It is just shut down. That would be--

SENATOR VAN WAGNER: You're not dewatering?

DR. BUZBY: No. That would be the first step of a two-step operation to go with the land-based disposal unit. The second step was incineration. When it came time to build the incinerator, DEP would not approve an incinerator in New Jersey for sludge, because the air quality will not take it, and it is unacceptable.

SENATOR PALLONE: And that goes back to the pre-treatment standards again.

DR. BUZBY: Well, I don't even think it's pre-treatment. Our pre-treatment program has been implemented. We have had very good success. Our users have found that after they get involved with it, they understand. The thing we do-- We invited them all to our plant, showed them the plant, and explained to them what the impacts are on the sludge and what the cost to them would be if we had to take the sludge to Michigan, and we had a wonderful response. Our rentals coming into our treatment have gone down by 50% in the last year.

SENATOR PALLONE: But, then, Doctor, are you telling me that you really had plans to go ahead with an alternative -- either incineration or landfill -- and even had spent money to do that--

DR. BUZBY: Eight million dollars.

SENATOR PALLONE: --and yet we are told by the State DEP not to; that ocean disposal is a preferred alternative.

DR. BUZBY: Well, not that ocean disposal-- See, we have to understand that all of these environmental laws--

SENATOR GAGLIANO: You just can't incinerate it.

DR. BUZBY: The Clean Water Act generated sludge, but never considered what was going to happen to the sludge. The Clean Air Act generated residuals, and never considered what was going to happen to them. All these laws were very much disjointed. What happens in this particular area of New Jersey, is that they are all coming in on themselves, and there is no other media to transfer the leftover contaminants to.

SENATOR VAN WAGNER: You're a doctor, right?

DR. BUZBY: In Environmental Science, yes.

SENATOR VAN WAGNER: In Environmental Science. I want to make a statement that I think, from what I heard today, and basically what I have known for a long time, I suppose, and probably what everybody knows-- It seems to me that we continue to spend money on upgrading treatment, yet today the DEP told us that the upgrading of that treatment has resulted in increased volumes of sludge, which has created a problem, sludge which, in fact, we will not burn, probably. We are too small a land mass to find-- Certainly, no one is going to go out and try to site a landfill. Ask people in Morris County about that.

DR. BUZBY: Landfilling in New Jersey of sewerage sludge is absolutely against the law.

SENATOR VAN WAGNER: Absolutely prohibited anyway, even if you could build one in the most advanced state of the art. So, maybe -- maybe, Doctor -- maybe what we have been doing is sort of going in the wrong direction. Maybe what we have to begin to do is step up our research mode, accelerate.

DR. BUZBY: Right.

SENATOR VAN WAGNER: Begin to get into the issue of, I don't know, microbiology, or some type of scientific approach, along with the educational process of teaching children at a very young age about recycling, and perhaps even ultimately industry will retrofit. They will say, "Yes, it is a losing cause for us to continue."

DR. BUZBY: Our experience has been that when industry understands, and when they are approached as partners, they will cooperate.

SENATOR VAN WAGNER: Yeah, I don't think anyone would deny that. We have a very responsible corporate community in this nation, aside from little glitches here and there. I think they try, and they provide livelihoods for people. So, when you start talking about closing them down, you better have someplace for those people to go to.

But, it seems to me from what everybody is saying today, that the first thing we ought to be doing, as a Committee, is recommending an upgraded and accelerated research model, focusing on areas of reduction -- waste reduction, volume reduction -- understanding that maybe the solutions we thought were there in the '70s, are no longer there in the '80s.

DR. BUZBY: Exactly. What the problem in this area is-- When you said there is no place else in the country that has this problem, it is because when you think of Chicago, Chicago does not have another major city within 100 miles. But within 100 miles of Rahway are cities in Connecticut, Wilmington, Delaware, Philadelphia. We are so intensely developed.

SENATOR VAN WAGNER: It is somewhat of a regional problem. I met a fellow in South Dakota, who told me that they have a landfill. His biggest problem was getting his operators to get the bulldozer close enough to the cliff that they pushed the garbage over. Okay? Now, obviously, South Dakota probably has less problems in terms of densities of population than this region. So, I would suspect that we have to attack this on several stratas: One, we have to say to the Governor, "You belong to the Eastern Governors' Conference. This and the Mid-Atlantic region are the most impacted. Move on that conference. Have that conference move on Washington. Let us develop a coordinated strategy, and let us develop it in a

way-- Let us not just walk away from it; let us put resolutions on the table in both states, or in several states, from legislatures, from congressional delegations, and let's start to move on it, because we are going to drown in it. It's obvious."

SENATOR PALLONE: But, Doctor, the bottom line-- You know, we were talking about the statewide Sludge Management Program, and the different alternatives. The bottom line is -- now, maybe I am putting words in your mouth, but this is the way I see it -- that, in effect, your sewage authority has actually been encouraged to say, you know, "We are going to go to the ocean disposal alternative," because the other alternatives really were disfavored, for the reasons you specified. So, if anything, these six sewage authorities, or at least yours, are being told, "Look, ocean disposal is the best way to go."

DR. BUZBY: I don't think anyone is saying that out loud. It is just the way the facts are coming together.

SENATOR PALLONE: But that's the bottom line; that's the bottom line.

SENATOR VAN WAGNER: That's the bottom line.

SENATOR PALLONE: That is what I think concerns a lot of the environmental groups.

SENATOR VAN WAGNER: You know, some guy could go out and form the 106 Corporation.

DR. BUZBY: Well, may I--

SENATOR GAGLIANO: It's screamingly explicit; screamingly explicit.

SENATOR PALLONE: There is nothing in the works now for you -- for your sewerage authority -- to do anything about phasing out dumping at 106 miles?

SENATOR VAN WAGNER: That's a good point.

DR. BUZBY: One thing I will say is that our treatment plant was built in 1934. We are already upgrading our

secondary system. We have one of the first secondary systems in the country. So, if all of the communities in New York and New Jersey had been that foresighted to build a treatment plant in the 1930s, we wouldn't be in this quagmire we're in now.

SENATOR VAN WAGNER: Don't say we wouldn't be in it. We may have been in it for different reasons.

DR. BUZBY: Right. The pictures we saw this morning were of Asbury Park, which has an inadequate treatment plant. That's a fact, and so does Deal.

SENATOR PALLONE: Yeah, but they are in the process of upgrading.

SENATOR GAGLIANO: There is a mystery as to where the funding is for that system. Can you believe it? At least that is what the paper said.

DR. BUZBY: Well, I don't know anything about the details, but it does not surprise me in the least that their surf is contaminated. It would surprise me if it were any other way.

In closing, I will tell you that we recognize our role as an important one in these ocean issues, and we are committed to solving the problems. We would invite you to visit our plant at any time, or to lean on our technical skills or our resources, as you search for reasonable solutions to these problems.

SENATOR PALLONE: Thank you very much.

SENATOR GAGLIANO: I have one last question.

SENATOR PALLONE: Would you please leave your card?

SENATOR GAGLIANO: I love to follow up on what Richie Van Wagner starts. He has some great ideas.

SENATOR VAN WAGNER: I'm a troublemaker.

SENATOR GAGLIANO: No, good ideas; wonderful. It just crossed my mind that with respect to research and where we are in pollution source reduction and all of that, do you think there are people in the State who are knowledgeable enough,

either in theory or the practicalities of coming up with real source reduction ideas, so that we could spend a day here with this Committee listening to them and getting ideas on where we might be going with respect to source reduction? I am following up on what Senator Van Wagner was talking about. I wonder how much of that source reduction information is still in the universities and still in the laboratories, but not out here where people can actually say, "You know, that might work."

DR. BUZBY: Are you talking about sludge reduction?

SENATOR GAGLIANO: I am talking about sludge reduction. I am talking about chemical pollution reduction. I am talking about garbage reduction.

SENATOR VAN WAGNER: Neutralization.

SENATOR GAGLIANO: Whatever it might be, because we can only handle so much. It is obvious that we are getting to the point where we can't handle any more. Are there professorial types out there? Are there laboratory people out there who could tell that story to us -- scientists who could tell that story to us -- and maybe in turn we could get some ideas out before the public?

SENATOR VAN WAGNER: You're right.

SENATOR GAGLIANO: Are there?

DR. BUZBY: Absolutely.

SENATOR GAGLIANO: Mr. Chairman, I suggest we get some names, and have a day on that issue.

SENATOR PALLONE: Okay. Please make a note of that, Ray. We are going to have several hearings now, as a result of this. Thank you, Senator, and thank you very much, Doctor.

SENATOR VAN WAGNER: That is one of the best approaches you can have.

SENATOR PALLONE: Bill, just briefly, could you come up? We just want to ask you a few questions. I know we are going to have to put most of them in writing, because we can't keep you all day. Then, Paul Caverly, you will be next. Please don't leave.

Bill, what Dr. Buzby just said about the ocean dumping alternative-- I am getting the impression, very strongly, that these sewage authorities are being told that ocean dumping is preferred, because of the technological problems of the other alternatives. What is the situation?

MR. LIBRIZZI: Well, I think, as Larry was suggesting earlier, the question of land-based alternatives-- When you start looking at land-based alternatives, there are other media we have to concern ourselves with. There are rare standards that have to be met. There are those kinds of issues that have to be dealt with, I think, in this case. I am not familiar with the situation she suggested, but just listening, it would appear to me that there may have been some concerns with other people relative to toxics in the emissions that go beyond what we would like to have in that particular area. The prospect of obtaining the standards-- I don't know how significant that was.

That is an example of the difficulties you might have in making those kinds of decisions. It doesn't, I don't believe, preclude the statements I made earlier about DEP's commitment to continue to pursue these land-based alternatives.

SENATOR PALLONE: See, the problem I have is, we sit here and talk about what New York is doing. We condemn the Federal government. We talk about the EPA and the fact that they are not doing enough. I am sure we are going to do that this afternoon when Chris Daggett gets here, but if our own sewage authorities are basically being told, "Look, this is the only alternative you have for the next 10 years, or next 15 years--"

MR. LIBRIZZI: See, I don't know if that is what DEP was saying, again not understanding the history of the Rahway permit. I don't know whether that is what is being said.

SENATOR PALLONE: Well, she indicated that they were actually talking about going in another direction in terms of

dewatering and possibly, you know, expending funds for dewatering, which I guess would be either for incineration or landfill.

SENATOR VAN WAGNER: That was the old days, yeah.

SENATOR PALLONE: And, yet, that was stopped, and--

MR. LIBRIZZI: It is hard for me to believe that that could be happening, because even if you went to an incineration alternative, you would have to dewater.

SENATOR PALLONE: Well, I know, but what I am saying--

MR. LIBRIZZI: So, that doesn't seem to ring logical to me.

SENATOR PALLONE: I know, but I just can't get away from feeling, based on what was just said here, that the Sludge Management Plan, which talks about ocean dumping as an alternative, is now at the point, with these six authorities, perhaps -- certainly with one, and possibly with all six -- of saying, "Look, this is the only feasible alternative for the next five, ten, or even beyond." Really, nothing is being done of any significance to look at any of the other alternatives, other than ocean disposal. If that is the case, why are we even talking about--

MR. LIBRIZZI: I don't believe that is the case.

SENATOR PALLONE: Well, tell us what's different.

MR. LIBRIZZI: I am going to tell the Committee, in greater detail, what that situation is.

SENATOR PALLONE: Okay. Well, we would like more information in that regard.

The other thing I wanted to ask you before you leave is, Dr. Sternberg mentioned the health study. His recommendation is that it be done this summer; that the results be made by December, 1987. I know Commissioner Dewling had indicated at one point that he felt the study could be done in-house for less than \$100,000. Where are we on this, in terms of the schedule and the funding?

MR. LIBRIZZI: Let me say that--

SENATOR PALLONE: You mentioned it earlier, but I--

MR. LIBRIZZI: We are moving toward conducting the study this summer. I can't suggest to you the completion of that study until we know exactly what we are doing.

SENATOR PALLONE: Do you estimate that the cost is going to be of the magnitude--

MR. LIBRIZZI: Well, I think we're looking toward the kind of study that needs to be done, as I suggested earlier. I can't be more specific, because the health people--

SENATOR PALLONE: No, I know, but I am trying to get you to be more specific, and you can't.

MR. LIBRIZZI: The health people need to sit down and look at the whole question of how to go about doing a study that will produce results. As I stated, I am not a health person -- or an epidemiologist. My understanding is that it is difficult to do the kind of study that can draw it to a conclusion, so they have to be very carefully prepared.

What we are suggesting -- as I suggested earlier -- is a focused study to do a couple of things. One, do we, in fact, have a problem? We believe there is public concern, and we need to address that.

SENATOR VAN WAGNER: May I suggest something to you? Why don't you go to the Agent Orange Commission and talk to Dr. Peter Kahn. That was begun under my legislation some years ago. I followed it very closely. I worked closely with the Commission. You have called them in; for example, when you had the problem in Newark, you called them in. Why not go to them and look at how they focused their study? Now, the only criticism so far with that study, was that it wasn't a broad enough sample and, of course, they were hindered by other problems, namely that it is tough to isolate Vietnam veterans as a group. You know how the study was conducted.

Why not set up your control groups? It's simple enough to do. You have some data to begin with. Get them in place. I realize the protocol you are going to have to follow is difficult, but how about getting that under way? At least we could perhaps begin some health screening, and begin to say, "Well, look, we are not saying to you, without question, that-- I know the medical science is not exact. We are not saying to you that this is a health-related effect, but we have done this many screenings; we have discovered these kinds of outcomes; and we are prepared to say we think we have to take certain of these steps so far. More results to come."

MR. LIBRIZZI: I think that is generally the concept I am suggesting to you. Now, the detail -- or the definition -- of what screening is, is unclear to me, because the health people have not indicated to me what that is.

SENATOR VAN WAGNER: All right, I understand.

MR. LIBRIZZI: I think, however, just for the information of the Committee, we are committed to presenting to the Medical Society, and the SOS people, on January 28, the plan that we would suggest.

SENATOR PALLONE: Okay, that is what I wanted to know.

SENATOR VAN WAGNER: Oh, good; that's excellent.

MR. LIBRIZZI: By that time, it will be quite clear as to what we--

SENATOR VAN WAGNER: So, you actually do have a specific approach under way.

SENATOR PALLONE: So, on the twenty-eighth, you are going to present that?

MR. LIBRIZZI: We will present that to the--

SENATOR PALLONE: And you will have any recommendations with regard to funding as well?

MR. LIBRIZZI: We should know what the funding should be at that time.

SENATOR PALLONE: All right. I would like to be made aware of that at the time as well.

SENATOR VAN WAGNER: He is on the Finance Committee of the Senate.

SENATOR PALLONE: Well, because if we are talking about money, we are going to have to come up with it from somewhere.

SENATOR VAN WAGNER: You're in the right place.

SENATOR PALLONE: Yeah, that's for sure. All right, just a couple more things. Just so I can clear up one thing from what Dr. Buzby said: I got the impression that it is not the high levels of heavy metals, industrial waste, whatever, in the sludge that is the reason why these land-based alternatives are not being used. It is not a pre-treatment problem. Is that true?

MR. LIBRIZZI: I don't know if that is true. If you asked that question generically, I would suspect that in some cases toxics may be of concern, relative to incineration.

SENATOR PALLONE: So, in other words, one of the problems with not allowing either the incineration or the landfill, other than just space problems, may be that we still don't have adequate pre-treatment?

MR. LIBRIZZI: Well, the pre-treatment program, I think, is going to be very useful in dealing with that question, if, in fact-- See, depending upon the situation you--

SENATOR PALLONE: I was concerned that the reason why they are still trying to dump in the ocean is because there is still a lot of heavy metals and material in the sludge that we don't -- that you feel is better dumped at sea at 106 miles, rather than incinerated. But Dr. Buzby gave me the impression that that is not true. There is no problem with their sludge. It could be incinerated, it could be landfilled, except that we don't have the plan and we don't have a place to put it.

You understand what I am getting at, but what you are saying is that that may not be the case. It may be that there is still a problem with the toxic element in the sludge from these authorities.

MR. LIBRIZZI: Well, it depends on what the situation is. I can't really be very specific to the Rahway Authority. I am not aware--

SENATOR PALLONE: What about this pre-treatment program you said is in place, or is about to go into place? What is the schedule on that?

MR. LIBRIZZI: The pre-treatment program is continuing. It is in the process of getting pre-treatment programs in the communities themselves. I don't specifically have schedules as to where that program is at this time, but it is moving forward very well.

SENATOR PALLONE: We, as legislators, have not been given much information about it, though. Why don't you give us, you know, some information about that program, and tell us exactly where it is, because I would like to know?

MR. LIBRIZZI: Sure.

SENATOR PALLONE: All right. Just a couple of things quickly, Bill. It was mentioned by our County Health Officer -- I don't know if you were in the room at the time; I think you had stepped out -- that he felt there might be a relationship between the hospital waste and wood burning; that some of the timber and charred material washing up in Manasquan or Spring Lake -- wherever -- also contained hospital waste. The feeling was that it may not be a coincidence, and that maybe hospital wastes are being incinerated at the wood-burning site, along with the timber. If that is true -- and it is something that has been brought up before, but was dismissed by the people who dump out there -- that's, you know, a very serious concern. Have you indicated any reports or anything of that nature?

MR. LIBRIZZI: I am not aware of any reports. I heard that statement. I made a note. Obviously, that is not in compliance with the permit, and should be stopped as quickly as possible. I need to go back and talk to the proper people

within DEP, and talk with EPA, to make sure that that particular issue is addressed rapidly. That is the best I can do at this time.

SENATOR PALLONE: Okay. Lastly, what about the vessel source pollution? You mentioned some program that DEP had.

MR. LIBRIZZI: Yeah, I think we have heard enough from the field to suggest that vessel pollution can, in fact, be a contributor to contamination in the ocean environment. We don't know much about it in terms of what the magnitude of it is. We have initiated -- we are in the early stages of initiation -- a study to try to get a handle on the vessel problem. When I talk vessel, I am talking commercial, as well as recreational. Some work has been done in the past, but I think we need to look at what has been done, estimate the amount of materials we are talking about, and the restrictions and constraints the vessel community might have relative to disposing of their waste on land. For example, are there any requirements because of international movement for sterilizing waste as it comes on board? We need to look at some of those constraints and some of those limitations and, finally, develop a thought process and a program to deal with it. Obviously, it is a Federal as well as a State activity, and we will work with the Federal people.

One of the things, for example, that we would encourage is-- There is an international organization that has been working toward eliminating and/or restricting ocean dumping of garbage and refuse. That international activity-- An annex has been prepared, and has not been ratified. I think that might be something that should be carried on to its conclusion as quickly as possible.

SENATOR PALLONE: That is something we really should ask EPA. Can you also give us -- I don't know if we have asked for this already -- some sort of schedule with regard to the six New Jersey treatment sewage authorities? Dr. Buzby

mentioned that they are under contract at Rahway, with certain deadlines and certain percentages. I would just like to have that for all six, if we could.

MR. LIBRIZZI: Basically, an interior schedule in terms of--

SENATOR PALLONE: Yeah, what kind of contracts, and what the percentages are in terms of the phase-out over the next year. I hope what I--

MR. LIBRIZZI: If there are any intermediate schedules, we will provide them to you.

SENATOR PALLONE: All right, I guess that's it. Thanks again. We'll get back to you.

The next person who I know has to get out of here is Paul Caverly, who is representing Congressman Howard. I am sorry for the delay, Paul. I know you are here in your capacity of representing Congressman Howard, but I have to mention that you are a Commissioner in Belmar as well.

P A U L C A V E R L Y: Thank you, Senator. Good afternoon. I am Paul Caverly, District Representative for Congressman Howard, who has asked me to make a presentation on his behalf.

"I am honored to have been invited by Senator Pallone and the Senate Special Committee to testify on the subject of ocean pollution. I am disappointed, however, that I am unable to deliver my testimony personally because of my need to be in Washington today.

"As part of the fight against pollution, I will be appearing before the House Rules Committee today to seek a rule for the Clean Water Act reauthorization. I introduced the bill yesterday as H.R. 1 on the first day of the 100th Congress, and a floor vote is scheduled for tomorrow. The U.S. Senate is also scheduled to act within the next few days to send this bill back to President Reagan. He was able to pocket veto the bill at the end of the 99th Congress, but we won't allow that to happen again.

"Even with the veto of the Clean Water Act in November, the 99th Congress was a milestone environmental Congress. We made great legislative strides in the protection of our coastal resources. However, more remains to be done in the legislative area, as well as the administrative and regulatory sectors.

"The issue is of particular importance to me because of the geographical configuration of the Third district which I represent. The district includes all of the beaches of Monmouth County and much of Ocean County, stretching from Keyport in the Bayshore in the north to Island Heights in the south.

"As Chairman of the Committee on Public Works and Transportation, I have a unique position from which to influence legislation on ocean pollution. My Committee has jurisdiction over pollution of the navigable waters and over ocean pollution. In my six years as Chairman, the polluters of the ocean, those who are indifferent to the marine environment, have learned that it is no longer business as usual. Any legislation on these issues must take account of the needs of the New Jersey shore.

"We are faced with the competing needs of environmental protection, economic development, and waste disposal in a metropolitan area of more than 20 million people. The sheer volume of pollutants, combined with the proximity of the people in the area, produces complex problems that are unmatched in any other area. However, it must be understood that the demands of environmental protection can no longer be subordinated to the need for inexpensive waste disposal or unbridled economic development for one portion of the region.

"These problems were recognized in the environmental legislation that was enacted in the 99th Congress. In the House, we passed Superfund, the Clean Water Act, the Water

Resources Development Act, and the Ocean Dumping Amendments Act. Only Superfund and the Water Resources Act were signed into law. The Clean Water Act, as I noted earlier, was pocket vetoed after the 99th Congress adjourned. The Ocean Dumping Act, for the third consecutive Congress, was not considered in the Senate. However, we were able to include many of the key provisions for the New Jersey shore in the bills that were enacted.

"There are several major causes of the pollution in the New York bight, as the area off the New Jersey shore is known in scientific terms. In every case in recent years when we attempted to attack a specific form of pollution, we were told that the real problem was a different source. In one glaring example, when there was an effort to stop the dumping of sludge 12 miles from Sandy Hook, New York officials told us that sludge dumping was not a major cause of pollution. The major problem, they said, was New York's discharge of raw sewage. We all know how New York reacted when I attempted to do something about the raw sewage.

"In the last Congress, we were able to take action that will significantly change the level of pollutants from each of the major sources being introduced into the waters of the bight. I will describe briefly what we were able to accomplish and what remains to be done on the Federal level.

"First, as part of the water resources bill, we ended a 12-year battle by enacting a legislative termination of the 12-mile sludge dump site. As of the end of this year, all nine authorities that have been dumping their sewage sludge at this site will be required to transfer operations to the 106-mile site at the edge of the Outer Continental Shelf. It is my understanding that Westchester County, New York, has already completed the transfer to the 106-mile site.

"As part of this effort, we also barred any new authorities from dumping their sewage sludge at any site in the

bight. Only those nine that have been grandfathered as 'eligible authorities' will be able to use the bight for sewage sludge disposal. This amendment was aimed at the Massachusetts Water Resources Authority, which had actually applied for a dumping permit, but it has larger implications. It reaffirms the congressional policy of opposing the use of the ocean for sewage sludge disposal and prohibits the potential precedent-setting action of granting a new disposal permit.

"Moving of the sludge dump site from 12 miles offshore to 106 miles is a major environmental victory for the shore. It can only be hoped that the ocean's recuperative powers will allow what was once termed a 'Dead Sea' to return to life. Unfortunately, scientists say there is no experience for determining the recovery of an abandoned sludge disposal area.

"It should also be made clear that the designation for the 106-mile site is for five years. It is a temporary solution until the nine authorities can develop land-based alternatives as the other entities that dumped in the bight have done. Ocean dumping is now a last resort. It should not be an alternative at all.

"The Water Resources Act also took significant action on the dredged material that is dumped six miles from Sandy Hook at a site known as the 'Mud Dump.' This material is the most troublesome, not only because it contains a wide variety of pollutants, but because it is the most directly related to economic development and there is no feasible alternative to ocean disposal. There is no question that the vitality and economy of the ports in the New Jersey and New York area are dependent on inexpensive disposal of dredged material. A threat to that method of disposal jeopardizes thousands of jobs in the port area, including many at the shore.

"In the Water Resources Act, the Environmental Protection Agency was given three years to locate a new site for disposal of contaminated dredged material at least 20 miles

from shore. The Mud Dump site will still be available for clean material.

"This is another change that I believe will encourage the dumpers to seek other alternatives. These alternatives are difficult to develop, but the new dump site may provide the impetus.

"The three-year deadline for EPA is tight, but I am sure the agency will be able to meet it. The Public Works and Transportation Committee's oversight subcommittee will be making sure the deadline is met.

"We were less successful in our efforts on the issue of providing adequate sewage treatment in the bight area. The key factor for New York and the North Jersey communities that have not achieved secondary treatment is the funds to build their plants. The Clean Water Act provided \$18 billion for sewage treatment plant construction, but it was vetoed. As I said, it will be sent back to the President a second time in a matter of days for his signature. If he vetoes it this time, he is likely to see a vote to override.

"In regard to New York City, the recent legislative activity, including the Clean Water Act ban on raw sewage discharge from the West Side of Manhattan and from Red Hook in Brooklyn, has sent a message to New York officials. They cannot solve their problems of decades overnight by waving a magic wand. However, they have been persuaded that further delays in completion of their treatment facilities cannot be tolerated.

"The first step of providing primary treatment in the West Side area has produced a substantial improvement in the water quality in the Hudson River, according to the Interstate Sanitation Commission. New York officials have assured me that they are ahead of schedule in bringing the North River plant to secondary treatment. This is another matter my oversight subcommittee will be carefully monitoring.

"A related issue for the oversight subcommittee is the question of the imposition of construction bans. In New Jersey, such bans are imposed by the Department of Environmental Protection until a community reaches a specified treatment standard. Until that milestone is reached, there can be no construction that would lead to additional sewage discharge. In New York, however, the ban is lifted when the community agrees to a compliance schedule to reach that milestone.

"That situation came to my attention in the Oakwood Beach section of Staten Island. The New York State Department of Environmental Conservation was prepared to allow a tenfold increase in raw sewage because a compliance schedule was adopted. I intend to have the oversight subcommittee examine these disparities and the issue of compliance with the goals of the Clean Water Act.

"For the 100th Congress, we have massive oversight responsibilities that I have already described in part to you. We will also be conducting oversight on the entire Superfund program to ensure that it is properly implemented. On the legislative side, we will be passing the Clean Water Act and the Ocean Dumping Act, which revises the entire procedure for granting ocean dumping permits and site designations. Along with the Ocean Dumping Act, we will examine the problem of floatabes in the New York bight.

"On the important issue of pollution from wood-burning offshore, I have been assured by the Regional Administrator of the EPA that the Army Corps of Engineers has implemented a 24-hour-a-day surveillance program for burn barges. He believes that this surveillance plan should alleviate the situation.

"I have made it clear that failure to halt this threat will result in my opposing any further permits for offshore burning. There is no reason our beaches should be threatened by this practice.

"It should be clear from my description of the legislation that we have made progress in the fight for clean ocean water. The full effect may not be seen for some time, but we have made a start. It is easy to pollute, but it is hard to clean up. The pollution has been taking place for decades, and it is unrealistic to expect that the cleanup will happen immediately. The most important thing we can do is eliminate the pollutants, and I believe we have done that to a great extent.

"I wish to congratulate Senator Pallone and the Committee for holding this hearing. This is a vital issue for us which deserves the special attention you are providing. I look forward to working with you in the future in a Federal/State partnership to protect our environment."

Thank you very much.

SENATOR PALLONE: Thank you, Paul. I don't want to put you on the spot, because I know you were just reading that statement, and I am not sure that either one of us is able to analyze this legislation in detail. But, if you could help me with one thing. I think there is a lot of confusion about the Water Resources Bill, which was approved by the President, versus the Clean Water Act, which was vetoed by the President, in terms of the different provisions. But, from what I understand from the statement, the Water Resources Bill, which was signed into law, has certain guarantees, which you mentioned. One is, it legislatively says the 12-mile site is closed. So, by the end of 1987, nobody is going to be able to dump there any more.

MR. CAVERLY: Yes, there were provisions placed in both measures, because if one was vetoed, that provision would also be in the second one.

SENATOR PALLONE: So, we don't have to worry that that is going to be in the Clean Water Act, because it is now law. It's part of the Water Resources Bill.

The second thing is the barring of any new authorities, i.e., Boston, from any dumping offshore; in other words, whether it is 106 or the 12 miles. That was also in the Water Resources Bill.

MR. CAVERLY: And also the Clean Water Act.

SENATOR PALLONE: And that has been disposed of as well?

MR. CAVERLY: Yes.

SENATOR PALLONE: The third thing is, with regard to the-- Oh, okay, you also mentioned the designation for five years only of the 106-mile site. Is that something that is also legislated now? In other words, once that five years is up, that would have to be reauthorized legislatively?

MR. CAVERLY: I think it would have to be reauthorized legislatively to allow those authorities that are presently being told that they have to go to the 106-mile dump-- They would have to come back, and probably explain in detail why they haven't complied with the five-year rule saying, "Find alternative sources besides ocean dumping."

SENATOR PALLONE: Well, I guess we can also ask Daggett about that when he gets here. Your understanding is that this is five years and that's it. If they wanted to reopen it, it would have to be done legislatively.

MR. CAVERLY: It would have to be done legislatively, not regulatory.

SENATOR PALLONE: And, on the Mud Dump site -- the dredge spoils -- with regard to the toxic materials -- not the clean fill, I guess, but the toxic materials -- it is three years for EPA to locate a new site at least 20 miles offshore. So, legislatively, three years from now, they will have to move out to 20 miles.

MR. CAVERLY: Yes.

SENATOR PALLONE: At a minimum. But they can still dump the clean materials at the six-mile site. All right. I

am not sure the public is aware that those things are now law. I mean, those are pretty significant changes in the direction of these ocean dumping sites and what we are talking about today. I am just glad you brought it to light, because I think those are significant.

MR. CAVERLY: I think the importance of the Congressman's introduction of the Clean Water Bill, and the importance placed on that by the new Speaker, Mr. Wright, is that he gave it H.L. 1. It is the first piece of legislation that the 100th Congress will be considering.

SENATOR PALLONE: As far as that Clean Water Bill is concerned, though, the main concern there is that the money be available to upgrade the sewage treatment plants. That is what we are talking about. That is what has been vetoed.

MR. CAVERLY: That is the most important thing.

SENATOR PALLONE: That is the most important thing. Going along with that is the elimination of the waivers, as you mentioned, for New York and New Jersey sewage authorities -- that they would no longer be able to get waivers from secondary treatment. I guess that goes along-- If we give them the money--

MR. CAVERLY: The grants or the loans, yeah.

SENATOR PALLONE: --then they have no reason not to upgrade. All right. I guess we can ask the Army Corps about the Ocean Dumping Act. You got into that a little, too. Thank you very much. I appreciate it. I'm sorry for the delay.

We have a lot more speakers, and we have the EPA Regional Administrator scheduled to come in here at three. We were going to take a lunch break, but I don't think we can because some of the people who are here are going to have to leave. I know the Army Corps can only stay until three. So, what I am going to suggest is that we simply take about a 15-minute break. What time do you have, Ray?

MR. CANTOR (Committee Aide): I have about seven after.

(At this point Senator Pallone has some dialogue with members of the audience regarding the fact that some of them cannot stay any longer. This discussion not transcribable; no one near a microphone.)

SENATOR PALLONE: All right, why don't I say this then: Rather than take a break-- I have no problem with continuing on. For anybody here, realize that we are not going to take any breaks, so if you want to go off and eat lunch or take a break, fine, but we will continue. I don't want to lose any of these people, so we will just continue.

The way I understand it, there are only two people who have indicated to me that there is an immediate rush -- Lou Figurelli and the Army Corps. Is there anyone else?

J O S E P H W I L L I A M S: I would like to speak.

SENATOR PALLONE: And you are?

MR. WILLIAMS: Joe Williams. I filled out a slip to speak.

SENATOR PALLONE: Oh, okay, fine. (inaudible comment from unidentified Army Corps of Engineers' representative in audience) Okay, so we will just assume that you will stay until later. What is the other group there, the Coast Guard? Are you under a time constraint?

UNIDENTIFIED SPEAKER FROM AUDIENCE: Not really, but I would like to-- (remainder inaudible)

SENATOR PALLONE: All right, let's try to get these few private people in first then. We'll have Lou first, and then you next, Joe. Lou, will you please come up? Lou Figurelli is the President of the Natural Resources Protection Association of Staten Island, certainly one of the leading environmentalists in the metropolitan area, and another person who has been very cooperative with this Committee. He has come up with many of the suggestions we have followed up on. I'm hoping that will make you less annoyed with the fact that you have been waiting since this morning.

L O U I S F I G U R E L L I: You don't know. Look, first of all, I don't have any ties to New Jersey, but I just want to say one thing: I have heard the biggest run-around coming from-- I don't think you got a straight answer, except from that lady doctor, believe me. The rest of them didn't answer a question you asked, and that's straight. I hope the Army Corps of Engineers does a better job.

I am going to say it straight. It is going to be loud; that is just the way you are going to hear it. I know I am being recorded, so I am going to read my testimony.

The word Senator Van Wagner was looking for was recycling -- the word he was looking for to work along with incineration. The other thing, about the additional study that Dennis said with the Medical Society-- I don't think DEP is going to allow \$100,000 or \$200,000 or \$300,000 or a million dollars to go to a private organization so they would be fighting each other. I think DEP would be looking for the money. I would like to make a suggestion. I think the Interstate Sanitation Commission would welcome having such scientists as those guys Dennis has. I think that although I fought against Alan -- and you will know it through my presentation -- through the Interstate, they are starting to do quite a bit of good work. I would recommend that rather than go to DEP -- because we have the same problem with the DEC-- DEC doesn't want the ISC, because whatever they come up with is going to be in contradiction to what they are doing. I think you are going to find the same thing in this particular situation, where you have doctors like Dennis, and groups with knowledgeable people, who may eventually override the idiots you have working in your agencies. That is just as plain as I am putting it.

So, watch what you are doing there. It is only a suggestion. I think you have better success working with that thing working with the Interstate Sanitation Commission. That is my suggestion.

Now, I want to get out of here so other people can speak. I know I am on record, but let me read this off, and I may ad-lib.

The following testimony has been prepared by the Natural Resources Protective Association of Staten Island, to be presented at the hearing conducted by the New Jersey State Legislative Services on Ocean and Coastal Pollution. The hearing will be conducted at Long Branch City, and so on and so on, by Senator Frank Pallone.

I would like to thank the New Jersey Legislative Services for requesting the testimony of the Natural Resources Protective Association here today.

For the record, my name is Lou Figurelli, President of the Natural Protective Association of Staten Island. Having testified at the previous Senate Special Committee hearing, held September 24, 1986, at Woodbridge, New Jersey, I am sure many of the same issues will be presented here today. To avoid repetition of the N.R.P.A.'s previous testimony, I feel that what has transpired since the September 24, 1986 meeting should be of great importance to all present here today.

As we of the N.R.P.A. are located in Staten Island, New York, we do not have access to information and the coverage by your news media of these hearings, and I am sure the same situation exists for you, that you don't have the material that I have. I am submitting at this time a packet of documents -- which I gave to Gina and to a few of your legislators -- and information we have gathered to support the following testimony. I would like to also thank the staff of the Asbury Park Press and The Staten Island Register for helping me to gather much of this information and for their comprehensive coverage of these hearings and keeping the public informed.

1) To my knowledge, the conditions previously stated by the N.R.P.A. in the September 24, 1986 Woodbridge hearing -- which is the question you were asking of the idiots you had

previously answering you-- Nothing has been. That is the answer. They can talk in circles, with all of their fancy talk, but nothing has been done. To my knowledge, the conditions previously stated by the N.R.P.A. in the September 24, 1986 Woodbridge hearing have not changed. The entrance of the Interstate Sanitation Commission and the New Jersey Attorney General as interveners in the Woodbridge suit, should have been done when the suit was instituted years ago. All right? And I have to thank Dr. Mytelka -- I spoke to Alan before -- that they are finally in it. I won't fight him any more -- all right? -- because that is where they belong. They should have been in there a long time ago.

Both the Natural Resources Protective Association and Groups Against Garbage have retained legal counsel in preparing intervener action to join the Woodbridge suit with the ISC and the New Jersey Attorney General, in their action against the Fresh Kills Landfill operation. So, we have the attorneys, and we're in it.

SENATOR PALLONE: You are going to intervene also?

MR. FIGURELLI: Wait, wait. We have the attorneys, and we're in it.

SENATOR PALLONE: You're already in it, Lou?

MR. FIGURELLI: Yeah. According to our lawyers, they contacted the Attorney General of New Jersey and the courts. We know about Stern; we know about everything.

SENATOR PALLONE: But, I mean--

MR. FIGURELLI: We're in it.

SENATOR PALLONE: --the court has granted your motion to intervene?

MR. FIGURELLI: We have paid our lawyers already; we're in it. Okay?

There is no use talking about the landfill thing. As far as the booms and the nets -- all of the crap these guys said they designed -- we presented that at the last meeting. So, let's call a spade a spade. The Natural Resources submitted all of that material at your last meeting, about the nets, the skimmer-- What a crock.

2) At the September 24, 1986 meeting, we of the N.R.P.A. informed the Senate Special Committee of the lifting of a raw sewage moratorium, which would have allowed over three million gallons, and possibly more, of raw untreated sewage to be released into the waters surrounding Staten Island, which would ultimately wind up in Raritan and Sandy Hook Bay.

Through the exposure by the N.R.P.A. of the lifting of the moratorium at the Woodbridge hearing, enough pressure was exerted by the news media, by the Interstate Sanitation Commission -- thank you, Alan -- and the New Jersey legislators, primarily Senator Frank Pallone, U.S. Congressman James Howard, and the fellow who represented the Congressman here just now-- What's his name?

SENATOR PALLONE: Paul Caverly.

MR. FIGURELLI: I don't think he was updated with some of his material. The piece he wrote might have been written a couple of weeks ago, or whatever the case may be. I can't say what it was, but it is not up-to-date, because this is what did happen:

I had a meeting with Congressman Molinari, and Congressman Molinari had a meeting with Jim Howard. They are both on the same Committee -- the Transportation Committee. I met with Congressman Molinari and we discussed it. Congressman Howard had spoken to Congressman Molinari; we had the meeting; and that is how the moratorium was reimposed. The New York Department of Conservation has been forced into reimposing the moratorium banning the discharge of raw sewage into the waters of Staten Island. Thank God. That is what happened.

But, we went further.

SENATOR PALLONE: That started this week, right?

MR. FIGURELLI: Yeah.

SENATOR PALLONE: January 2?

MR. FIGURELLI: Right. I met with Guy about two weeks ago.

SENATOR PALLONE: But, I mean, that is back in place.

MR. FIGURELLI: The moratorium was supposed to be imposed the third.

SENATOR PALLONE: Of January.

MR. FIGURELLI: Let me finish, because I have it all here. This is an update of Paul's material.

The N.R.P.A. has retained legal counsel to research why the moratorium was lifted in 1984, without notifying the public. If any permits were granted since 1984 to date allowing new developments to discharge raw sewage -- and there is a great possibility the New York State Department of Conservation was itself in violation of its own laws -- the law is, not only in Staten Island-- The waters of Raritan and Sandy Hook Bay and the waters of Staten Island are classified as Class A and Class B, and I wish Alan was still here. In Class A and Class B waters, all the waters have to be treated. All the sewage has to be treated, or else it cannot be discharged. So, it didn't make a difference if there was a moratorium or not.

The law under the interstate-- The Environmental Conservation law of New York State, states that in these waters a criteria has been set. Therefore, the lifting of the moratorium, or the reimposing of the moratorium, is ridiculous; it's worthless. The law hasn't been enforced, as you said. That is what happened.

SENATOR PALLONE: But, Lou, you made this point at our last hearing. You could look at various Federal laws. You could even go back to the Rivers and Harbors Act.

MR. FIGURELLI: All right, may I finish?

SENATOR PALLONE: I am not trying to contradict you; I am just trying to say that the problem--

MR. FIGURELLI: The law he was looking for was the Clean Waters Act.

SENATOR PALLONE: They have never enforced these laws, going back to the 1890s.

MR. FIGURELLI: Right. When you asked Alan, "Who is to enforce this law?" the answer was the DEC. You asked Alan, and he said, "Well, I can't answer that -- why they don't enforce it." And, you're right. For every piece of paper that falls off that barge, under the Rivers and Harbors Act, there is a minimum fine of \$500, and a maximum of \$2500. There is a penalty of a year in jail for each incident.

SENATOR PALLONE: Yeah, but do you remember what they told us in response to that? "Well, you know, we can't follow all these laws."

MR. FIGURELLI: No, so Figurelli followed them, but they didn't listen to me. I photographed them. Didn't I give you the pictures?

SENATOR PALLONE: Yeah, but all I'm saying is, the fact that the law is on the books, you know--

MR. FIGURELLI: All right, but you know what my point is.

SENATOR PALLONE: Lou, are you saying--

MR. FIGURELLI: Our law enforcement agencies are not doing their job.

SENATOR PALLONE: --send one guy to jail for a year, or whack somebody, as they did in IFF, for example, with a million-and-a-half-dollar fine, and you will see changes take place? Are you saying that?

MR. FIGURELLI: I think if the penalties are enforced, yes. I could go out with my boat, and I am entitled, by law, under the Rivers and Harbors Act, to recover-- Listen to this: I am allowed to recover half of the fine as a fee.

SENATOR PALLONE: A finder's fee.

MR. FIGURELLI: I could go out and follow the God damned boat coming out of Brooklyn, with the barge overloaded, without a net on it, and by the time I got to Fresh Kills, I would have \$10,000 in my pocket. And you're looking for money to do environmental work? Get the DEC or the DEP to do their jobs. I'm sorry, but I get mad.

SENATOR PALLONE: No, you're absolutely right. We know you're right.

SENATOR VAN WAGNER: I enjoyed watching you get mad.

MR. FIGURELLI: Yeah, I have watched you, too. That's all right.

Should our legal counsel find the DEC in violation, the N.R.P.A. will proceed to take whatever action is needed to make sure this does not happen again, including a class action suit. We are going in against them. I fought DEP -- I hope you guys are still here behind me -- and I never lost a battle. I do not intend to lose now.

As soon as we get a copy of the new wording of the moratorium, which was to be imposed January 3, 1987 -- just a couple of days ago -- we will forward a copy to this Committee. Senator Frank Pallone, the people of Staten Island and the sportsmen who use the waters for fishing and boating and recreation, wish we had you to represent us in Staten Island. Thanks for your help and concern for our waters. It is tremendously appreciated.

3) Burrow Pit: You have been with me to a few of the meetings of the Public Involvement Coordination Group -- the PICG. I am a member of the PICG. The Army hates my guts, and they're sitting here now. I hope Dennis is still here behind me. Well, maybe they don't hate my guts, but I am a thorn in their sides, for many reasons.

I have worked with the Public Involvement Coordination Group, and we have a lot of good people -- a lot of

hard-working people. I am going to ramble if I don't stay with my statement, so let me stay with this. The only thing I want to say is: A lot of people are not aware of what a burrow pit is. Very briefly, it is a hole in the middle -- I wish we had that map-- I would like to just show you something. I want to give you the location, which happens to be very important.

SENATOR PALLONE: Lou, can you bring the microphone with you?

MR. FIGURELLI: I don't need that thing.

SENATOR VAN WAGNER: That puts you on the record.

MR. FIGURELLI: Oh, what, the mike?

SENATOR PALLONE: Yeah, it's for the hearing transcriber.

MR. FIGURELLI: She can hear me. Oh, I'm sorry. What you're saying is that the machine can't hear me.

SENATOR PALLONE: Go ahead. Is that going to be a problem?

MR. FIGURELLI: Why, because I'll walk funny? I'll dazzle you with my footwork. All right.

The thing we are going to talk about now is the burrow pit. This is where our lovely contaminated material, which you were talking about-- The material we talked about originally in this Public Involvement Coordination Group, was supposed to be clean material. It was supposed to be an experiment. Now, when I get further in, it is no longer an experiment. The N.R.P.A. took the Army and DEC to court and beat their hides off, and we stole it-- Well, we will get into that now. Let me give you the location.

This is Sandy Hook (using pictures to demonstrate); this is Staten Island; this is Rockaway. The burrow pit is right here. Forget being 12 miles or 106 miles offshore. Highly contaminated material, that cannot be legally dumped into the ocean, is going to go here. Now, listen to me -- all right? At least you have the location.

SENATOR PALLONE: Just for the record, we're talking about the dredge materials which are normally dumped at the Mud Dump site.

MR. FIGURELLI: Dredge spoils, we're talking about.

SENATOR PALLONE: Not the sludge.

MR. FIGURELLI: Well, not sludge. Let me tell you, New York is starting to do a good job on the sludge. Please, we finally got them moving their hides. It's not the right place to do it, but-- As long as we are going to be on sludge, I'll tell you this much: I met with Guy this week -- two weeks ago -- and we discussed the sludge. There is an outfit in Pennsylvania. Guy had material on his desk when I met with him. There is an outfit in Pennsylvania that takes both sewage sludge and garbage. They compost it, which is something I didn't hear all day today. They compost it, and it is transferred -- believe it or not -- into fertilizer that is sold at \$150 a cubic yard. I didn't hear one mention in New Jersey, from all the people of our brilliant DEP who sat here, of anything about that. Believe me, there are other ways, Senator; there are other ways, but they are not looking into them.

SENATOR VAN WAGNER: I am familiar with melorginite (phonetic spelling), which is made by the Milwaukee Sewer Authority. There are a number of places that have done this for a number of years. I am not sure whether New Jersey-- New Jersey tried sludge farming; they have tried several approaches. The answer we keep getting, at least this was the stock answer--

MR. FIGURELLI: Was that this is cost-prohibitive.

SENATOR VAN WAGNER: Not cost-prohibitive. The answer I kept getting, at least at many of the meetings I went to even prior to this, was, "Well, we have a different make-up. We have a lot of heavy metals. We have a lot of different kinds of components. Therefore, we have trouble converting all of our sludge into material that can be used for fertilizer."

Now, I don't know whether that is still--

MR. FIGURELLI: You have to realize my statement. I just said--

SENATOR VAN WAGNER: That is not my statement.

MR. FIGURELLI: No.

SENATOR VAN WAGNER: That is what I have been told.

MR. FIGURELLI: But you have to realize my statement. I want to clarify that. You just said that they said it's metals and this, that, and the other thing.

SENATOR VAN WAGNER: That is what I am told.

MR. FIGURELLI: I understand. I just made a statement to you that this wasn't only sludge; it was garbage they were doing the same thing with. Think about what I'm saying.

SENATOR PALLONE: All right, let's go back to the burrow pit; let's go back to the burrow pit.

MR. FIGURELLI: Don't let them use an excuse.

Okay, let's get back to the burrow pit. That gives you the location, and the material that is going to go in it. Now, before I read this off, I want to show you a court order, and then I will get into the other thing.

SENATOR PALLONE: Is that in here?

MR. FIGURELLI: Yes, I gave all of you a copy. This was a court order. If you go to that part of it (referring to material he has given Committee)-- Rather than go through all of the technicalities, I just want to read this last part. This is Justice Rubin's decision, which stopped this project from being done five years ago.

SENATOR PALLONE: The burrow pit?

MR. FIGURELLI: Right. "In view of the disparity of scientific opinion concerning the propriety of continuing with the experiment" -- as I told you -- "prior to an environmental impact statement, I would rather be safe than sorry and make a hurried decision on disposition. I am constrained, therefore, to holding the motion in abeyance pending a thorough up-to-date

investigation, which shall be done by an impartial scientific group, mutually selected by the parties." That meant that the judge, when he read the briefs in the case, detected inconsistencies on the part of the people who prepared the original plan.

SENATOR PALLONE: Lou, I understand that, but what is going on now?

MR. FIGURELLI: I am going to get to that. I just wanted--

SENATOR PALLONE: All right.

MR. FIGURELLI: It is very short. Just let me finish, because it happens to be a very important point. Therefore, an impact statement had to be prepared by an impartial group, with the approval of the N.R.P.A. In other words, he deferred the instant motion, and caused a demand for-- "Some rejudgment is deferred pending an impartial investigation and submission of a report therein to the court. In the interim, respondents are enjoined from proceeding with the experiment." It stopped.

SENATOR PALLONE: And it was stopped?

MR. FIGURELLI: It was stopped. Then, they appealed it. They went to an Appellate Division--

SENATOR PALLONE: Yeah, but that has all been resolved now, hasn't it?

MR. FIGURELLI: No, wait, that is what I am trying to tell you. It was appealed, and the Appellate Court upheld this decision. Then we heard nothing about it.

SENATOR PALLONE: Right.

MR. FIGURELLI: Because the Department of Conservation revoked the permits.

SENATOR PALLONE: Right.

MR. FIGURELLI: So, working with the Public Involvement Coordination Group-- I will continue on now, because now it has surfaced again. In the meantime, when we were working with the Public Involvement Coordination Group,

and through the Environmental Defense Fund, we suggested alternatives with separate locations, and to design a pit specifically-- I don't want to go, Senator -- Rich, Mr. Van Wagner -- I don't want to go--

SENATOR VAN WAGNER: Rich, everybody calls me Rich.

MR. FIGURELLI: Rich, I don't want to go into the details, but there were problems with the design. The pit was too close to the channels, in a bad area, so basically that area was not the right place to put this particular material, and you'll understand later.

SENATOR VAN WAGNER: Your group's recommendation was to rule out that area?

MR. FIGURELLI: That is what I am going to go into now. Therefore, the environmental impact statement that was prepared -- that I just got December 10, and which I am going to discuss in here-- It was prepared by the same people we sued; not someone impartial, but the same people we sued -- Stony Brook University, the DEC, the Army Engineers. So, how could it be an impartial statement?

SENATOR PALLONE: And what does that conclude?

MR. FIGURELLI: Wait, we didn't reach that yet. It is only a draft. Think of what I'm saying. I am supposed to meet with the Army Engineers this Friday, but maybe they won't meet with me after this hearing. But, the point is, this is still in effect. Although it is a Federal project, when they come into New York waters, they require a New York DEC permit. And I'll tell you what: I am not against the burying of dredge spoils. I have approved of this project -- to do it -- but in the right place, and with the right conditions.

I am not saying-- This is a good alternative to get rid of the dredge spoils -- to bury them -- but not in this particular location.

Now I can go to here (referring to written statement). I just had to bring the people who do not know up-to-date.

SENATOR VAN WAGNER: Why would you think burying it is better?

MR. FIGURELLI: Well, let me finish. Sure, we've got to give an alternative to ocean dumping. We can't just keep dumping at 106 miles offshore. Besides, it does cost a lot of money to do it that way. I think we have a good alternative. I think basically my group, and all of the environmental groups we have, feel that the subaqueous pit-- I want to make one thing clear. I want to separate two things right now, from the Army, from the DEC -- subaqueous pits and burrow pits. Burrow pits were pits that were illegally dug. The DEC and the Army didn't monitor the guys who were digging them, as you said to monitor the wood burning operations. They didn't do their jobs. So, the sand miners dug the holes as they saw fit. I didn't want that to happen again.

A subaqueous pit designed properly -- which I will get into -- is what we designed at Stevens Institute, and here it is. Now, after reading the EIS, I submitted this to the Army Engineers, back in 1984. They came out with an EIS with my design in it -- the exact numbers. They're doing some job, using other people's work. All right, sorry.

SENATOR VAN WAGNER: If you weren't going to have a meeting before, you're sure as hell aren't going to have one now, I'll tell you.

MR. FIGURELLI: Don't bet on it. The guys are good, believe me.

SENATOR VAN WAGNER: I think everybody--

MR. FIGURELLI: I think they are trying to do their jobs.

SENATOR VAN WAGNER: I think what we want to do here, though, is--

MR. FIGURELLI: I think communication is the thing that is lacking.

SENATOR VAN WAGNER: If I might, Lou, in deference to the Chairman, I think what we would like to do here is, rather than go like this (motions) about who is at fault -- because we all are--

MR. FIGURELLI: I am not blaming anyone; I am saying it the way it is.

SENATOR VAN WAGNER: If you could focus on what strategy you are recommending now that this Committee take to make sure that this is upheld--

MR. FIGURELLI: That is what I am going to do.

Or or around December 10, 1986, I received a letter and an environmental impact study from the U.S. Army Corps of Engineers to be reviewed by the N.R.P.A. As this study is in draft form, to go into the many details of its contents would be impractical at this time, because it could change. I will, therefore, convey to you the important part of this document, which is the intent of the project, and the effect it will have on the waters of Raritan and Sandy Hook Bay.

At this time, it must be noted by all present that this same proposal was submitted for public hearings in 1980. Through the support of many organizations and a suit which was brought against the U.S. Army Corps' proposal and the New York Department of Conservation for issuance of permits for this project by the Natural Resources Protective Association of Staten Island, the courts ordered the halt of the project and the New York Department of Conservation revoked the permits. Raritan Bay and Sandy Hook Bay were saved from disaster.

Five years later, the U.S. Army Corps of Engineers, the New York Department of Conservation, and many of the original planners of this project, are spending millions of dollars of taxpayers' money to promote the same project, in the same location, without finding a solution to the problem of disposing of the highly contaminated dredge spoils.

By now you should be wondering, what could be worse than tons of plastic and debris being dumped in our waterways? What could be worse than millions of gallons of raw sewage being discharged into our coastal waters? What could be worse than millions of gallons of leachate coming from the Fresh Kills Landfill, which wind up in our coastal waters? What could be worse than the tons of air-borne pollutants from the chemical and manufacturing plants which line our shore which eventually settle in our surrounding water? Is it possible that we are going to add an additional source of pollution to the already highly stressed Raritan and Sandy Hook Bay area?

I would like to ask all of you here today--

SENATOR PALLONE: Lou, before you ask us a question, we don't understand what is going on. There is a new EIS that just came out December 6.

MR. FIGURELLI: Oh, thank you for stopping me. That's what I want.

SENATOR PALLONE: All right. Now, that new EIS came out December 6. It basically says--

MR. FIGURELLI: It came out, I think, in November sometime, but I got a copy December--

SENATOR PALLONE: --it is okay to go back and use the same burrow pit and to put the same material in there?

MR. FIGURELLI: Not the same material. We fought, and they conceded that they would put only clean material in there.

SENATOR PALLONE: All right, but what I'm saying--

MR. FIGURELLI: It was supposed to be an experiment.

SENATOR PALLONE: We are not familiar with this document. Just tell us-- I want to know what it is.

MR. FIGURELLI: Oh, the document I received says it is no longer an experiment. It is supposed to be a working draft -- when it is complete, now, it is only in draft form.

SENATOR PALLONE: Excuse me. It is a recommendation that, rather than dump dredge materials, the most contaminated

materials, at the six-mile site, that we use the same subaqueous burrow pit?

MR. FIGURELLI: Well, they are doing the same thing that the other fellow here was talking about -- preferred and best and this and that. What they are saying is, a real decision hasn't been made yet.

SENATOR PALLONE: No, but they are saying it is okay.

MR. FIGURELLI: Yeah. Their indication is that the burrow pit sites -- the sites in that area; there are two pits up there -- are preferred by this environmental impact statement.

SENATOR PALLONE: So, is this, in effect, PICG's recommendation?

MR. FIGURELLI: No. The PICG -- some members of the PICG say-- I was talking to Dennis about this, because I read the report. I wasn't at that meeting. Where a conflict resolution arose, some people on the committee said, "Look, we are going to hit Figurelli again. We are going to hit a lot of environmental problems. Before we go through the whole process to bring this thing all the way back with the schedule and spend millions of dollars, let's resolve it.

SENATOR PALLONE: All right, but--

MR. FIGURELLI: Evidently, the Army said, "No, we don't want to bring anybody in right now. We are going to go through the whole process again." That's dumb.

SENATOR PALLONE: We have to speed things up, Lou. Your concern is that this new document, then, is leading in the direction of using that same option again.

MR. FIGURELLI: Definitely.

SENATOR PALLONE: Okay. Now, where do we go from there?

SENATOR VAN WAGNER: You're saying they have used the approach of ruling out other options as a reason--

SENATOR PALLONE: They're saying this is--

MR. FIGURELLI: They are saying, this is the preferred site, and I am sure they are going to talk about it.

SENATOR VAN WAGNER: That brings us back to where we were this morning.

MR. FIGURELLI: Right. Now we are back to the same place where we were five years ago. With all of our work and busting our chops trying to get this straight, with designs and everything else, we are back to the same burrow pit.

Now, they concede that we need new pits, but they want to use-- Well, let me finish.

SENATOR PALLONE: Okay.

MR. FIGURELLI: They want to use these pits for 10 years.

SENATOR PALLONE: I only interrupted you because I didn't think we understood what was going on. Go ahead.

SENATOR VAN WAGNER: You were right; I didn't understand.

MR. FIGURELLI: Do you understand now? Is it clear?

SENATOR PALLONE: Yeah, continue where you were.

MR. FIGURELLI: That's why I said I was glad you interrupted me.

I would like to ask all of you here today -- this is a little bit of theatrics -- to indulge me in the following request. Please close your eyes and construct the following image in your minds. Upon completion of this image, I'm sure your decision will be the same which was made to stop this project in 1980.

Close your eyes, please. On a bright sunlit day, with a deep blue sky, a gentle wind blowing -- blowing across Raritan and Sandy Hook Bay -- you could be sailing, you could be fishing, you could be bathing from the many beaches and parks surrounding the area, such as Gateway Park at Sandy Hook, Coney Island, Staten Island beaches, or North Jersey beaches. You could be a commercial lobsterman, a fisherman. You could

be aboard a charter boat with your family, enjoying the fishing with many other people. A day of fishing is a source of food for your table, while the boat captains are earning a living from the Sheepshead Bay, Staten Island, and the many charter boats from northern New Jersey basins, Raritan Bay, Sandy Hook and its surrounding waters. In these waters are the most highly productive fin fish and shellfish areas on the eastern seaboard. This area you are building an image of as you drift, sail, fish, or bath, is one of the most highly used recreational areas in the East. Raritan and Sandy Hook Bays are nurseries for many species of marine fin fish and marine life. It is a source of work, living, and play for millions of people from all over the world.

It is a beautiful image. Does it not make you feel good? I know it makes me feel good. It is now time to construct the final part of this vision. Keep your eyes closed. At a location equidistant from Long Island, Staten Island, and Sandy Hook, New Jersey, exactly in the center of all this activity, a cloud lifts which was not noticed by you because you were busy being content and happy with the relaxation this area was giving you, and a huge, ominous, black, filthy looking floating barge appears, anchored over an area called a burrow pit. Upon its sides are painted a skull and crossbones, and a printed sign, "Danger - Contents being discharged into this burrow pit are highly contaminated and cannot be legally dumped into the ocean. Is dangerous to marine life, but we have permission to dump it here." Beautiful!

Visualize the next part of this vision, as the barge discharges its lethal contents into the tides and current. It disburses 5% to 10% of this material before it gets into the pit. If the tide is coming in, this mass of polluted, highly contaminated, sometimes highly toxic water winds up on Staten Island, Coney Island, and Long Island. If the tide is going

out, this destructive mass winds up on Gateway Park, Sandy Hook, and all the beaches along northern New Jersey from Sandy Hook to Perth Amboy, and from Sandy Hook south to Long Branch. If it is dumped in stormy weather, the amount will increase drastically.

Visualize this tranquil scene transferred into chaos, as thousands of people, running from the beaches, boats of all kinds, fishing, sailing, and other forms of water-related activities, running, swimming, sailing, and opening throttles wide on power boats to avoid coming in contact with this deadly mass. In the interim, the solid mass discharged from the barge, which eventually gets into the burrow pit, kills every form of marine life that was present in the highly productive fin fish and shellfish nursery habitat.

This vision will have to be repeated continuously for the next 10 years, as proposed by the U.S. Army Corps of Engineers and all the other individuals and agencies supporting this project.

Open your eyes, please, not only for now, but for the intent of this project and what it will do to the ecological and economical structure of Raritan and Sandy Hook Bay for many years to come.

SENATOR VAN WAGNER: Where is that now? Where is that proposal now? In what stage is this whole thing?

MR. FIGURELLI: It is in the draft stage. May I finish, Rich?

SENATOR VAN WAGNER: What do you mean "draft stage"?

MR. FIGURELLI: There are still meetings on it. But it has a schedule all the way. There is supposed to be a working draft, that somewhere in 1987-- I don't have the figures with me, because I didn't want to get too technical.

SENATOR VAN WAGNER: Are they dumping now?

MR. FIGURELLI: No, they can't dump.

SENATOR VAN WAGNER: When is their proposed-- Under the draft, when--

MR. FIGURELLI: Well, they have a whole schedule. If I could give you an answer-- What I am trying to do, Richard, Senators, and people, is cut off going through all of this again. It's not necessary. It was gone. Now, let me finish.

SENATOR PALLONE: The only thing I wanted, though, Lou, is-- We understand what you're saying, but if you would, briefly, at some point, please tell us what other alternatives you would suggest.

MR. FIGURELLI: I just said, design the pit. You have to understand, all dredge spoils are not bad.

SENATOR VAN WAGNER: Would you design the pit in another location, or in the same location?

MR. FIGURELLI: Three miles away. Could that be a hindrance?

Look, I'll explain. Yes, we have given an alternative; the PICG has given an alternative, the Environmental Defense Fund, and I am sure the Army is going to verify my statements. We are looking at this, not that it is a back yard syndrome. We are looking at it-- We have given them their alternative. In fact, they have conceded to the alternative.

SENATOR PALLONE: I know you are not into the back yard syndrome, so don't--

MR. FIGURELLI: I am not against the proposal of burying the material. It is a good idea. Let me finish, and then we'll do it. All right?

I, like you, would not swim, fish, or play here, nor would I eat any fish that were taken from these waters. Do you realize what that will do to part of this area? We depend upon recreation areas like this. Oh, he's gone now -- the guy who was here, who said before, "You're driving all of us away." Oh, Dennis said it. You are driving all the people away.

The decision made by the N.R.P.A. in 1980 by its court action preserved the area for five years. We stopped it. I

sincerely beg of all present here today -- not only the officials on this Committee, but all, including the news media -- to notify everyone you meet to oppose this proposed plan to destroy this highly productive recreational area by using it as a depository for any form of dredge spoils, by all the Federal, city, State, and public agencies promoting this project.

In conclusion, I would again like to thank the New Jersey State Legislative Services for requesting me to testify at this hearing. As I have stated many times before, the secret of solving many of these problems is cooperation between New York and New Jersey, and the Federal government. We have to open some lines of communication. If we keep blaming each other for different things, we are not going to go anywhere. I will be dead and buried.

Millions of dollars of taxpayers' money could have been saved on the burrow pit project alone, and the problem could have been solved, if a new pit had been dug in a designated area without opposition. But the agencies involved refused to accept the decision, even after it was stopped by the courts. If President Reagan wants to know where money is being wasted, the burrow pit project may supply him with a big answer.

Should this project be approved, we will have taken a 20-year step backwards in our attempts to clean up Sandy Hook and Raritan Bay, and we will have a toxic mud dump, because if they use one pit, they are going to go to the next one and the next one, and it will never end. Once they get permission for one, it will start like the Fresh Kills Landfill -- first five feet, and then ten feet.

SENATOR VAN WAGNER: But why is it better three miles away?

MR. FIGURELLI: The tests we have done show that that area is less productive. See, the burrow pits, Richard, have become productive over the years. They were a freak. Any

biologist knows that a perfectly flat bottom does not support high levels of marine life. It is the irregular bottoms -- the depressions -- as long as they don't go too deep and create hydrogen sulfide, or anoxia, which is what they call it.

This particular pit, because of its certain characteristics, is open. One side is completely open to the Chapel Hill Channel. If we ever decide to dredge that channel, it is going to go right into the pit, and everything is going to fall out. The fact is, the pit, at its deepest point, is only 53 feet. Now, 53 feet-- There is 20 feet of surface water, so it is not 53 feet. The channel alongside it is from 35 to 45 feet. That means that the channel is deeper than the pit. The boats, the turbulence-- Take the material out and put it in the pit, and it will be distributed all over Staten Island and New Jersey.

SENATOR VAN WAGNER: So, what you are saying is that--

MR. FIGURELLI: It is the wrong location.

SENATOR VAN WAGNER: --the three-mile-away location is not close to the channel, okay.

MR. FIGURELLI: At the three-mile location, the water is at a depth-- It should be the location at Area C. We recommend it because it has a depth of about -- let's say, 35 feet. Now, you have to realize something. If you know about wave action, if you are a boatman, the surface rolls. When you have a storm, there is very little turbulence at the bottom. I dove in the pit where the Army wanted to put-- We have all the reports. Six knots. I couldn't keep my balance down there. How is the crap going to stay in there? It won't; it will come out. But offshore, the location is very low. They admitted -- oh, yes -- that the marine life is much lower than in the burrow pit. That's number one. DEC's job is to protect marine life.

SENATOR PALLONE: All right. But, Lou, just--

MR. FIGURELLI: It is less dangerous at the pit we located.

SENATOR PALLONE: Lou--

MR. FIGURELLI: I'm finished.

SENATOR PALLONE: I know you're finished, but I don't want you to be finished.

MR. FIGURELLI: Oh.

SENATOR PALLONE: I just want your general statements, or input about the dredged materials. You know we have had a lot of testimony today about how we don't want to continue using the Mud Dump site six miles off.

MR. FIGURELLI: Correct. I believe that, too. I don't think it should be used.

SENATOR PALLONE: We had testimony by Paul, representing Congressman Howard, that, pursuant to this Federal legislation, EPA has three years to locate a new site at least 20 miles offshore.

MR. FIGURELLI: Yeah, it seems like they're--

SENATOR PALLONE: So, it may be that what EPA is going to come back with is recommending a new site, you know, 20, 25 miles offshore, and I don't like that option either.

MR. FIGURELLI: Neither do I.

SENATOR PALLONE: All right.

MR. FIGURELLI: May I explain something? Let me answer that first. You have to keep in mind, Frank, that there are different types of dredge spoils. There is moderately clean-- In other words, there is a criteria set by EPA, that certain material, when it becomes toxic to a certain degree, cannot be dumped into the ocean until-- It has to be capped, or isolated. The burrow pit-- What we are talking about is the design, getting or disposing of -- which is the problem -- the very highly contaminated material.

SENATOR PALLONE: Right.

MR. FIGURELLI: All right. The other dredge spoils we are talking about-- There are a lot of dredge spoils which can be used for beach nourishment. There are a lot of dredge spoils which can be used for landfill cover.

SENATOR PALLONE: And you can continue to use the six-mile site for the clean material.

MR. FIGURELLI: Yes, that's what I'm saying -- moderately clean, if it passes the criteria, or the matrix they are talking about.

SENATOR PALLONE: But my question is-- You know, you have been on the PICG; you have been involved with this.

MR. FIGURELLI: Almost seven years -- six years now.

SENATOR PALLONE: Where are we going in terms of an alternative to ocean disposal? What is the recommendation?

MR. FIGURELLI: That's a good question. If we keep going with the PICG and the Army Engineers' attitude toward going only in one direction-- When they try this again, I am going to stop them for another five years.

SENATOR PALLONE: Okay, but my point is--

MR. FIGURELLI: They have to realize there are different directions. They keep concentrating on the burrow pit. Concentrate on some other alternatives. Wait, let me finish. I'm sorry, Frank, I don't mean to be crude.

SENATOR PALLONE: No, it's all right. I am just trying to get somewhere, you know.

MR. FIGURELLI: I was very instrumental-- I live on Staten Island, where the Fresh Kills is. I did not oppose, although I could have, the using of the dredge spoils as landfill cover, because I was concerned about the leachate. But I backed off, and I allowed Wilfred Schmidt and the Army Engineers to make the test with the 15,000 cubic yards. I was going to take them to court again when they started that thing, but I wanted to see the test done. You know I'm fair.

SENATOR PALLONE: Just tell me briefly, because you have a lot of expertise and I want your opinion, and then we are going to move on--

MR. FIGURELLI: Right.

SENATOR PALLONE: There may be some preference to moving from six to 20 or 25 miles. I assume there is, and maybe Mr. Daggett can tell us what the advantage is.

MR. FIGURELLI: It is all according to what the material is.

SENATOR PALLONE: We're talking about the toxic material.

MR. FIGURELLI: No, no way.

SENATOR PALLONE: All right. Well, if there is no advantage--

MR. FIGURELLI: Take it out to 106, until we build a burrow pit.

SENATOR PALLONE: Then, what I want to know is-- You are suggesting we go further out to the continental shelf.

MR. FIGURELLI: Get it down into 8000 feet of water for two or three years, because the EIS is, they want to use the burrow pit over here to kill us, to give them time to build a pit.

SENATOR PALLONE: So, the first--

MR. FIGURELLI: Let them go to 106 miles, and build the pit in the interim.

SENATOR PALLONE: --preference would be to go out to the 106 miles because of the deep water and the slope. Now, is it--

MR. FIGURELLI: Not forever.

SENATOR PALLONE: No, not forever.

MR. FIGURELLI: Only for a short time.

SENATOR PALLONE: Yes, a short time.

MR. FIGURELLI: Enough time to build a new pit.

SENATOR PALLONE: What about the other alternatives, other than offshore dumping? Do you feel the pit, the way you have outlined it, is the best alternative?

MR. FIGURELLI: They're using my design.

SENATOR PALLONE: All right. Are there enough of these pits to accommodate all of the material?

MR. FIGURELLI: That's the good part of it. What we recommended to the Public Involvement Coordination Group-- Some members -- most of the members -- have fought me. What we said was, the new pits can be designed properly. You have to realize something, Frank. The pit that we designed will accommodate close to a million cubic yards.

SENATOR PALLONE: So it could accommodate a lot of this material for a long time?

MR. FIGURELLI: All the way down to the bottom. If you put it down 90 feet, there is no chance of it getting out. The thing is, the miners who will build this will sell the sand, and on top of that, we could get rid of cellar dirt, old trucks, tires, and build a reef there, because we won't want to dig there any more.

SENATOR PALLONE: So, you feel--

MR. FIGURELLI: We will isolate it, and we can kill two birds with one stone: We sell the sand for construction, we build a properly designed burrow pit -- instead of destroying Staten Island and the Raritan Bay, only three miles away -- and we build a reef on top.

SENATOR PALLONE: But, Lou, as far as you are concerned, that would be the preferred alternative, and that would take care of a lot of this material for a long time.

MR. FIGURELLI: You bet your life. Every time we needed a new pit, we could dig one.

SENATOR PALLONE: What about containment islands?

MR. FIGURELLI: Well, we went through that one. I think I would have to go along with what the Army Engineers agreed on. That alternative, although they didn't close it down yet-- I don't think it is a good alternative for this area. Maybe for areas down around North Carolina, but I think for the water and the density of population-- I think building an island out in the middle of the water would be the same as I just -- psychologically, the same thing as I drew, the skull and crossbones.

SENATOR VAN WAGNER: What about the reef? What guarantees--

MR. FIGURELLI: What do you mean, a reef?

SENATOR VAN WAGNER: The reef you are going to construct in that burrow pit.

MR. FIGURELLI: Oh, that will not be contaminated material on top. I said--

SENATOR VAN WAGNER: Oh, you're only using that for moderately--

MR. FIGURELLI: Well, you don't know the difference.

SENATOR VAN WAGNER: No, I know the difference very well.

MR. FIGURELLI: Cellar dirt is clean material.

SENATOR VAN WAGNER: You're just using that-- In other words--

MR. FIGURELLI: In other words, what I'm building is an irregularity on top of it, with a slight depression, you know, like a rock pile -- a reef -- so that once it becomes encrusted with marine life, it will support marine life.

SENATOR VAN WAGNER: Thank you. What I think, Mr. Chairman -- and I know you want to get on with this--

SENATOR PALLONE: No, go ahead.

SENATOR VAN WAGNER: What troubles me about what I'm hearing is, the alternatives that we continually discuss -- and I have been going through this for a number of years, talking about these alternatives-- The alternatives we continually discuss revolve around choices between one location or another location in the water -- okay? -- in the water. Now, I realize you have a great deal of expertise, Lou, and I realize you have spent a lot of time on this, and I know you're telling me that moving this three miles is a far better location, and putting in less contaminated material on top of that--

MR. FIGURELLI: I know what you're driving at.

SENATOR VAN WAGNER: --is a good idea. We can build another burrow pit, but--

MR. FIGURELLI: Why should it go in the water at all?

SENATOR VAN WAGNER: --my question is--

MR. FIGURELLI: That's what I'm telling you.

SENATOR VAN WAGNER: Well, it's not a question. My statement is, we must, as a Legislature, hopefully with our colleagues in New York--

MR. FIGURELLI: Right.

SENATOR VAN WAGNER: --and hopefully with our colleagues in the Congress, and hopefully with the Governors of these states, have to move more strongly, in a more accelerated fashion, on determining methods for not having to make these kinds of choices. It seems to me that a country that can fly faster than sound, can shoot a person to the moon, can develop all sorts of tremendous technologies, has a problem, either from a biochemical or microbiological point of view, with finding out how to neutralize or reduce waste. I don't say it can be done overnight. If we are not doing that, then we are destined to make these kinds of choices forever.

I'm saying, simply, we've got to start, as a Legislature, to direct these agencies somewhere else to find their answers. We can't continue to blame this agency or that agency for not enforcing -- and this industry and that industry. We've got to bring it together. If we don't do it now, we're never going to do it. We're going to be here five years from now, arguing about another location.

MR. FIGURELLI: That's what I just said.

SENATOR PALLONE: I agree, Rich. Lou, you have basically outlined to me what you feel is the best alternative, and I appreciate that.

MR. FIGURELLI: I would love to see it up on land. It's unfortunate, but we can't do it that way. So, I think the subaqueous pit is the answer to the highly contaminated

material. I think we have a lot of good uses for the moderately contaminated material as landfill cover. I enjoyed working with the Army, although it doesn't sound like it. However, it is just my way. I can't see where, because a guy is a director, or has a fancy name, he is going to try to make a jerk out of a guy like me. It's not going to happen -- seriously.

I am 56 years old. I have been on the water all my life, and if these guys can't come down and listen-- You people -- you're listening to me. They don't want to listen. They just want to do whatever they feel like doing. Good luck to them, but I guarantee this much: They better not even try to get into those two burrow pits. An article that came out in The New York Post today, written by Teddy Moran (phonetic spelling), that said he would rather go back to fighting in Vietnam, rather than face Lou Figurelli going into the burrow pits. That was directed to the Army. It is in today's paper.

SENATOR PALLONE: Thanks a lot, Lou. We appreciate your coming down.

MR. FIGURELLI: Thank you.

SENATOR PALLONE: I know you probably had the longest trip of anybody. Thanks again.

Okay, we promised Mr. Joseph Williams -- I know he has been here all day -- that he would be the next speaker.

MR. WILLIAMS: Thank you for the opportunity to speak today. I spoke at the Point Pleasant meeting. I lost my boat offshore from the wood-burning operation.

SENATOR PALLONE: Just so we know, that is the Point Pleasant hearing the EPA held on the wood-burning site. Joe?

MR. WILLIAMS: The EPA, yes. My boat was lost. I was lucky to get back with my skin. I have heard a lot about pollution and health hazards today, on which I agree. I have been in the water and seen them. I'm talking about putting my life in jeopardy.

I went out fishing on June 22, and passed one of the wood-burning barges. It was unbelievable. Wood was stacked like a hay wagon. At the meeting in Point Pleasant, on July 29, testimony was taken that the Coast Guard was informed of this burn, of this barge being towed, logs falling off, and did nothing. They didn't move one iota to see what was going on. They were in radio communication with the tug "Elizabeth." They did nothing.

It took me seven months to find a lawyer. You can read this (passing material to Committee). This is the lawyer I used here.

SENATOR VAN WAGNER: Do you have a copy of that, Joe?

MR. WILLIAMS: I can give you copies of this. I just sent all of this information--

SENATOR PALLONE: Joe, you were here and listened to the testimony by DEP.

MR. WILLIAMS: I did mostly all of this when this happened, Frank, in town, through a friend of mine, Mrs. Berlin (phonetic spelling), Mickey's wife.

SENATOR PALLONE: Right.

MR. WILLIAMS: Being offshore 17 miles is beyond the jurisdiction of the State of New Jersey or any lawyer in this State. I had a loss of about \$20,000, and I would like to know who is going to pay.

But, I am just lucky I didn't lose my life. A few of my friends have fished with me all of my life. I have fished on the water. Like Lou said, I enjoy the water. I remember when I used to be able to dig clams in the Shrewsbury River. Forget it.

SENATOR VAN WAGNER: Raritan Bay.

MR. WILLIAMS: Same thing.

SENATOR VAN WAGNER: With my feet.

MR. WILLIAMS: And I moved down. I went down from Long Branch. They had a gigantic fish kill here in 1975-'76.

SENATOR VAN WAGNER: I remember it.

MR. WILLIAMS: I took my boat down to Manasquan, where it is nicer.

SENATOR VAN WAGNER: Directly attributed to the bight, by the way.

SENATOR PALLONE: Joe, I don't know what more you are going to say, but I would like to know-- You know, you can make your presentation, and then answer these questions later. But I would like to know if you have seen any changes with regard to that site since that hearing. I know in July -- just to give you background-- In July--

MR. WILLIAMS: I haven't been on the water since.

SENATOR PALLONE: Oh, okay.

MR. WILLIAMS: I had to take my boat, because of the damage incurred, and total it. I chopped it up with a chain saw.

SENATOR PALLONE: All right, then let me ask you this: Based on your own experience-- You know, we have heard two things. On the one hand, there are legislators -- and certainly everyone on this Committee -- who really feel that wood-burning should just stop altogether out there. That is number one. Do you feel the type of enforcement measures discussed today, which we thought were already in place, but apparently they're not--

MR. WILLIAMS: I'm leading up to it. You people are being fooled like I am.

SENATOR PALLONE: Okay.

MR. WILLIAMS: The original permits at the Point Pleasant meeting that were given to me-- They stipulate that these loads are supposed to be followed, and people are supposed to do this and do that, and they put six-foot extensions on the side of these barges. But if you can picture a hay wagon coming down the street and just dropping pilings off-- Even here in Long Branch, the pilings were washing up on

the beach. And once these pilings fall off the barge and no one sees them, there is no way you can go back and serve liability on a certain fellow. The only reason I did -- and I stayed on the phone after my accident for up to six hours-- I went to the marine police first. They looked at me like I had two heads. I went to the Coast Guard in Manasquan. They gave me a cup of coffee, and told me, "That's tough shit" -- point blank.

People are laughing. I'm not so funny. If someone took a gun and chased me down the street and started shooting at me-- I consider that the same thing as a fellow leaving a minefield of logs in there. He not only jeopardized my life; he jeopardized the lives of my crew. One of my friends will never go fishing again in his life. We had to tie the fellow up. The boat was sinking. One engine-- The propeller was hitting the bottom, and the (indiscernible) came right through the bottom. There were hundreds of poles in the water, and I mean hundreds. If you heard about the guy telling that the logs were walking like this, they do. Even today, I am still horrified about going on the water.

SENATOR PALLONE: Joe, what I want to know, though, is, at that hearing in July-- At that point, there were very few restrictions, really. I mean, they talked about stanchions--

MR. WILLIAMS: I beg to differ.

SENATOR PALLONE: All right.

MR. WILLIAMS: If you looked at the permits that were issued--

SENATOR PALLONE: There were some things.

MR. WILLIAMS: I have looked at them a thousand times. I sent those up to my lawyer in New York. In those permits, it was spelled out that they were supposed to be followed -- supposed to be checked -- as they are telling you today.

SENATOR PALLONE: Yeah, but there's one big difference. I am not defending them, because I'm not sure it makes any difference either. But the one big difference about what was happening in July, and what we were promised in September and October, and what we are being promised again today, is that now we are being told that either the DEP or the EPA -- in other words, a separate agency -- is now going to accompany the boats when they leave port -- accompany them out to sea, sit there and watch while they burn, and take them back to shore.

MR. WILLIAMS: Okay.

SENATOR PALLONE: That wasn't done before.

MR. WILLIAMS: All I can draw is just this inference. Let's take the EPA. Look at Westway. I never saw such a crooked deal in my life. Look at the soil in Montclair, New Jersey. It is still sitting there. I would not trust the EPA. In fact, here is a statement I gave to EPA. They wanted me to testify, but as of December 31, my lawyer said, "No, do not testify for them, because they are just as liable as the fellow who actually burns the material." Here is the--

SENATOR PALLONE: Okay.

MR. WILLIAMS: I gave that to them.

SENATOR PALLONE: I only mention it because I was upset when I heard before that this is not happening, because we were at least promised that. In other words, before these promises, or negotiations, that were supposedly entered into an agreement between DEP and EPA were suggested in September or October, the only restrictions were restrictions that were placed on the barge operators themselves. In other words, Weeks, etc. were told, "You have to have certain stanchions, you have to have certain monitoring, you have to have this, or that, or the other." I agree with you that most of that was never followed, if anything.

MR. WILLIAMS: No. They were just haphazardly done.

SENATOR PALLONE: Right.

MR. WILLIAMS: As the logs fell in the water, there was no way you could trace the logs back to him.

SENATOR PALLONE: Right.

MR. WILLIAMS: All he was going to say was, "They drifted down."

SENATOR PALLONE: Exactly. But, the only difference--

MR. WILLIAMS: You know, anybody would believe that then.

SENATOR PALLONE: Now we are being told that the agencies themselves -- either DEP, through this contract agreement with EPA, or EPA itself -- is going to accompany the vessel. Maybe that won't make any difference, but there is a distinction there, for whatever it's worth.

MR. WILLIAMS: One thing you have to take into consideration -- and I feel like I am trying to move a mountain here--

SENATOR PALLONE: You are.

MR. WILLIAMS: A fellow burning one barge--

SENATOR VAN WAGNER: I feel like I am sitting under one.

MR. WILLIAMS: As you saw one barge, they estimate 3500 tons. Multiply that by \$200. That fellow hits the Lottery every time he takes a barge offshore.

SENATOR PALLONE: They make a lot of money.

SENATOR VAN WAGNER: Maybe I'm asking a stupid question again, but I'll ask it anyway. Why is it so preferable to burn wood at sea?

SENATOR PALLONE: It's not.

MR. WILLIAMS: Are you asking me? I think it would be the same way if they took chemicals or toxic waste and burned them at sea. There was one company down in the Gulf of Mexico that was fined an exorbitant amount through the years. Finally -- finally -- EPA says no.

SENATOR VAN WAGNER: Well, let's just stay with the wood.

MR. WILLIAMS: Now the guy wants to bring his act up here.

SENATOR VAN WAGNER: These, I take it, are big pilings pulled out of harbor cleanup, and stuff like that.

MR. WILLIAMS: Yes.

SENATOR PALLONE: Everything -- docks, telephone poles.

SENATOR VAN WAGNER: Right. I keep hearing, you know, cost-effective, that's the economics of the situation, and so on. It seems awfully expensive to me to have to send someone out in the beginning. I mean, the Coast Guard has a multitude of missions they have to accomplish, and so do the environmental people.

Why don't we just-- Mr. Chairman, you know, from what I have heard of burning at sea, it doesn't work.

MR. WILLIAMS: It doesn't.

SENATOR VAN WAGNER: It can't be monitored.

MR. WILLIAMS: Right.

SENATOR VAN WAGNER: It creates too many problems. Why don't we just make our statement, and say, "Cease"?

SENATOR PALLONE: Well, I think we have. We were very emphatic.

MR. WILLIAMS: We have, but it is going on today. It is going on right now. I guarantee you that if we jumped into my friend's boat and went out there, the guy who is supposed to be watching the load would be sound asleep, or he wouldn't be watching, or he'd be somewhere else. How do you know someone is watching it? You don't. You're taking the word of these guys.

As far as I am concerned, the word of the EPA is nil. They say one thing, and they do something else.

SENATOR PALLONE: The only reason we ran into opposition, Senator, was, when we had the hearing this

summer-- You have to understand that our own State DEP is opposed to ending the wood-burning at sea.

SENATOR VAN WAGNER: I don't care.

SENATOR PALLONE: The reason is because you have a lot of interests in--

SENATOR VAN WAGNER: That never made any difference to me in 14 years.

SENATOR PALLONE: No, I'm just telling you. This is not something where they are on our side. This is something where they are opposed to us.

SENATOR VAN WAGNER: Well, you know, they have their thing, and we have ours.

MR. WILLIAMS: How about if I came to you, and told you two fellows, "No, you can't drive 17 miles away from your house because I am going to be burning logs"? You know, I am trying to follow the pursuit of happiness here.

SENATOR PALLONE: No, no, I agree with you. I just want you to understand -- everyone to understand -- that this is one of those things where the shore area legislators -- the three of us and other shore area legislators -- and the people at the Jersey shore, are very much opposed to the continuation of the wood-burning site.

MR. WILLIAMS: Correct.

SENATOR PALLONE: That opinion, however, is not shared by many North Jersey legislators, or representatives up there--

MR. WILLIAMS: Because there is big money at stake.

SENATOR PALLONE: --because they are taking the material from the old piers and the old areas along the harbor, they're burning it at sea, and it's easier for them to do it.

SENATOR VAN WAGNER: Yeah, but--

SENATOR PALLONE: This is not one of those things where we have a consensus statewide.

SENATOR VAN WAGNER: But I think, just like anything else, whether it be school funding, solid waste management,

hazardous waste disposal -- whatever major issue we have ever faced in this State -- the reason why we have managed to come partially to a solution, is the fact that we have reached consensus. We're talking about wood. Let's just stay with wood for a minute--

MR. WILLIAMS: Correct.

SENATOR VAN WAGNER: --because my mind gets a little boggled with all of these other things.

MR. WILLIAMS: Well, I doubt if I could--

SENATOR VAN WAGNER: If we could form -- and I would suggest that we do it very quickly -- with our colleagues in New York, a very quick working group of legislators, along with some of our North Jersey colleagues, and say, "Look, let's start to look at just the wood part of it. Let's start to develop a methodology for disposing of the wood, without necessarily bringing it out to sea and burning it." All right? There must be some selective ways of sawing it up and selling some of it for other uses. Then perhaps we will be left with something. I don't know why it is such a problem to landfill wood, especially after it is chopped up. If you look at a landfill operation, you have stump dumps, because you can't put stumps in landfills because it creates saddles. You don't dump tires any more. DEP has done a fair to middling job with starting to regulate landfills.

Here we're talking about, not a chemical or toxic substance-- I realize some of these things may be covered with creosote, but we're talking about wood. It may be somewhat toxic, but we're talking basically about wood. It seems to me that given the horror stories we've heard, that wood-burning -- or any kind of burning at sea -- isn't the best -- isn't even among preferable alternatives. I think we ought to convene, as quickly as possible, a group of legislators, get something on the books, move the Governor in this direction, and say, "We want to end this." It is not just the shore legislators who are affected; it is everybody who is affected, ultimately.

MR. WILLIAMS: It's everybody.

SENATOR PALLONE: I agree, Senator. The only thing I have to add is, when this issue came up in the Senate Committee, there was a Senate Joint Resolution, which I believe both of us, and perhaps even Senator Gagliano had sponsored--

SENATOR VAN WAGNER: Right.

SENATOR PALLONE: --which basically said--

SENATOR VAN WAGNER: Stop burning.

SENATOR PALLONE: --we should stop burning. We don't want the site. Go back to the old method which you had about 10 years ago, where they had a location in Hudson County and they used to burn it. Okay? Unlike a lot of the issues we are discussing today, we were not able to get our own Department of Environmental Protection -- and they are not here now -- to go along with that. The Administration's official position is that this is important, and we want to do it at sea. I think that position should change. I agree with you 100%.

SENATOR VAN WAGNER: We've got to keep pounding at their door, and they'll change it.

SENATOR PALLONE: But, in the interim, the worst thing about it is that we were promised in September or October, that this additional third-party monitoring by DEP, with authority from EPA, was going to take place. And today we were told that that hasn't happened. So, I mean, the whole thing has been a--

MR. WILLIAMS: We're right back to square one.

SENATOR PALLONE: We're back to square one.

MR. WILLIAMS: I wasted my breath at Point Pleasant. That is what you're telling me. When Daggett gets here, if you fellows could--

SENATOR PALLONE: They said immediately; that was in October.

MR. WILLIAMS: Right. When Daggett gets here, please request all the photographs of the 8" x 10" glossy he was given, and all that. I can't believe they just went ahead and said, "Go ahead, start burning again."

SENATOR PALLONE: Well, we are going to ask that of Mr. Daggett.

MR. WILLIAMS: If these fellows are going to start a war offshore, like you said with New York and New Jersey, it will erupt. It will.

SENATOR VAN WAGNER: And it's ridiculous.

MR. WILLIAMS: Well, the thing is-- Again, I want to quote back to this question, because I saw it with my own eyes. It's no hearsay. At the meeting in Point Pleasant, the Coast Guard was notified. All they did was ask the guy in the tug, "Are you losing your load?" He said, "I think I am." There was a fellow sitting back there watching the pilings fall into the water -- watching them fall into the water. The Coast Guard just said, "Well, that's it. Here's a cup of coffee, my friend."

SENATOR PALLONE: All right. Thanks a lot, Joe. I'm sure you have more that you want to say, but we just have to move on. We realize this is one of the major issues that came up today, in terms of what is being done with the wood-burning site, and we intend to follow up on it.

MR. WILLIAMS: I am just happy that no one has lost his life yet. I almost did. Thank you for your time, sir.

SENATOR PALLONE: What I am suggesting we do now-- Mr. Daggett is here, and we want to put him on. However, we promised the Thousand Fathom people that they would be able to give their presentation. I know that relates to what we want to ask about the 106-mile site.

What are we talking about -- 15 or 20 minutes?

LEONARD T. BELCARO: Fifteen to 20 minutes.

SENATOR PALLONE: Okay, that should work into our schedule, and then we will go to EPA. (pause here while slide projector is being set up)

MR. BELCARO: My name is Leonard Belcaro. (brief discussion about microphones) I don't yell as loud as Lou does.

My name is Leonard Belcaro. I am the President of the Thousand Fathom Club. I would like to thank this Committee for allowing us to speak. We want to let you know our views with regard to the 106 dump site. I have a prepared statement I would like to read, in conjunction with my slide presentation.

As President of the North Jersey Chapter of the Thousand Fathom Club, I am expressing the deep concern of our membership regarding the massive ocean dumping scheduled for the next five years at the Industrial Waste Dump Site 106.

Our organization is comprised of two existing and three forming chapters of offshore anglers, totaling many hundreds of sport fishermen. The "out of sight, out of mind" syndrome does not apply to our organization. We sportsmen strictly fish the continental shelf between Block Canyon off Montauk Point, New York to the Washington Canyon area off Virginia. Our quarry is the pelagic ocean roaming game fish that inhabit these drop-offs.

Our canyon fishing season begins in late May and extends into the month of November. The game fish that are sought after by these anglers are the white and blue marlin, and the yellow-fin, albacore, and big-eye species of tuna.

Having fished in such areas as Hawaii, Tahiti, New Zealand, and Australia, I have found no greater or more productive big game sport fishery on this earth that is comparable to our fishery at the continental shelf here in the Northeast.

According to a 1981 survey of the New Jersey offshore recreational fishery conducted by the New Jersey Division of Fish and Game, the magnitude of this sport fishery is astronomical. In New Jersey alone, not considering the offshore sport fisheries of New York, Delaware, Maryland, and Virginia, the offshore fishing industry brought in revenue to local business establishments totaling \$11.1 million during 1981. The value of the entire New Jersey canyon fleet was estimated at \$73 million.

It is extremely likely that these dollar figures have doubled since the completion of the 1981 survey.

These staggering figures should leave you with little doubt of the importance of this offshore recreational fishery and the impact any adverse change in distribution and/or abundance of tuna and billfish would have on the fishery and the businesses directly related to this fishery.

The National Oceanic and Atmospheric Administration characterization study on the "106," completed in 1983, shows us its potential area of impact. This area totally encompasses the entire continental shelf from Block to the Norfolk Canyon off the Virginia coastline.

Dump Site 106 is located just off the 1000 fathom curve of the Toms Canyon. It places the dump site right in the heart of this area of world-class sport fishing.

In the early 1960s-- Correction. (indicating a change in slides) This is the swordfish -- the area where the swordfish is caught commercially and in sport, right in the middle of the impact area. Tuna fish, and white and blue marlin sport fisheries. (indicating different slides)

In the early 1960s, when the 106 was designated as an offshore deep-water dump site, our satellite technology was nonexistent. Infrared photos, such as this, that monitor the meanderings of the Gulf Stream and its warm core eddies, were unheard of.

This is a satellite photograph -- a copy of a satellite photograph -- of the Gulf Stream and a warm core eddy. You can see the swirl, or rotating water, that is created from this eddy.

My company, Offshore Services, has monitored these movements of warm core eddies for the past several years, reporting back to hundreds of canyon fishermen, via a weekly newsletter, the location of these eddies and Gulf Stream meanderings.

A warm core eddy is a large clockwise rotating mass of water, to 100 kilometers in diameter, that has peeled from the Gulf Stream and moves westbound paralleling our continental shelf. This is the formation of a warm eddy from a meandering of the Gulf Stream. An average of three to six warm core eddies will pass near the dump site annually, each spending an average of 22 days in the area.

The trajectories of 13 warm core eddies, lightly colored, were monitored as they moved along our continental shelf. The darker shaded areas show when a warm eddy occupied some, or all, of the dump site. Each of the entire 13 warm core eddies occupied some area of the dump site, as they moved southwest, paralleling the continental shelf.

Even though the drift is basically to the southwest at the dump site, the rotating masses of Gulf Stream water can cause strong drifts from southwest to northeast, depending on how far offshore -- here's a southwest drift -- or how close inshore these warm eddies will pass through the area. Correction: This is an offshore eddy. It shows the direction of current toward the Hudson Canyon in the northeast -- correction, northwest -- and this is an inshore eddy. It shows the direction of the water flowing to the southwest.

During 1979, drogued buoys were dropped at the 106 site and their trajectories were monitored and recorded. March 7 to 17, 1979, trajectories for buoys 264, 265, 266, 267, and 269 were basically westbound. Floating at depths of five to 30 feet -- the depths here are given in parentheses -- these buoys reached our continental shelf between one and a half to three days. Buoy 269 floating at a 30-foot depth, floated well inshore of the continental shelf within a three-day period.

May 8 to 24, 1980, buoys 465, 456, 463, and 472 were tracked in a southwest direction, two of which reached the continental shelf in approximately six days. In 12 to 15 days, they were again plotted well inshore of the continental shelf.

May 9 to 18, 1980, buoy 295, floating at a 30-foot depth, reached the Atlantis Canyon off Montauk Point, New York, in a period of eight days.

The experts have stated that the sewage sludge will remain at depths from 70 to 100 meters, depending on the thermalcline at the dump site. The EPA's predictions appear to conclude that sewage sludge disposal at the 106 site will not cause negative impacts or accumulations of materials on the bottom due to dilution and dispersions. Our concern, in light of the rapid westbound movement and varying direction of these drogued buoys that covered the entire area of our northeast canyon fishery, is that there could be a net transport of materials to our continental shelf. And, if this transport did occur, can a build-up or accumulation of materials take place at our drop-offs? Could this great fishery be negatively impacted, resulting in great economic losses to the businesses here in New Jersey and in other states concerned?

There is another immediate concern of our inshore fishermen and the people who come to, or live on, the Jersey shore and dine on the different bottom-feeding species of fish and shellfish. If an accumulation of materials takes place on our continental shelf, will these materials affect the winter flounder? The dots here signify areas where winter flounder are found. And you can see, in the autumn, the distribution of winter flounder. You will find some on our continental shelf. Summer flounder -- which is our fluke -- do spend some time -- a considerable amount of time -- on the continental shelf in early spring, and some in autumn.

Black sea bass-- You will also find them on our continental shelf. Atlantic mackerel, more so in the spring. Silver hake, which is our whiting-- (witness showing slides of the different fish) Our lobster -- American lobster -- as you can see, is right in the potential area of impact. Our sea scallops and our rock crabs spend some portion, or the entire

year, at our continental shelf, then return back inshore, to be caught by either sport or commercial fishermen, and consumed by us and our families.

There are several extremely important questions that our organization is requesting this Committee to seek accurate answers on:

1) What predictive model results convinced EPA that materials will be diluted and dispersed, and not transported to our canyon areas and onto our shelf?

2) What portion of the dump site will be used for sludge disposal during our canyon fishing season?

3) What safeguards will be taken to ensure that materials are not being transported to, and accumulating on, our continental shelf?

4) What studies will be conducted on our pelagic species of game fish, ensuring us they are not being affected by the materials being dumped at the 106?

5) What studies will be conducted on the staple diet of these game fish, the massive schools of bait, such as squid and butterfish, that also reside on our continental shelf?

6) What surveillance of disposal activities will be undertaken this summer to ensure that permit conditions are met by dumpers?

We would also like to know from EPA, how was the 15,000 gallon release rate aboard sludge vessels, as per permit, reached? Are the release rates controllable aboard these sludge vessels -- sludge tankers -- and have any studies been completed in the past six months with regard to the uncontrollable dumping rate aboard sludge vessels?

The Thousand Fathom Club advocates an immediate ceasing of all ocean dumping, but it is apparent this cessation is an impossibility within the near future. We then suggest an alternative location approximately 125 miles southeast of the 106. This area would place the dumping of sludge and

industrial waste beyond the Gulf Stream. This position would give our continental shelf and the fishery located there protection in the form of a barrier created by the Gulf Stream. It would also raise the cost of ocean dumping considerably, forcing the dumping agencies to actively -- and I think the word we're looking for is "actively" -- search for land-based dumping alternatives, so we can truly phase-out ocean dumping completely within the next five years.

SENATOR PALLONE: Thank you.

MR. BELCARO: You're welcome.

SENATOR PALLONE: Stay put, though, because I want to ask you one or two things. First of all, Len, I want to thank you for giving us this report. I think, at least personally, I haven't heard the types of criticisms and questions you're asking about the 106-mile site. A lot of us basically said, "Well, this is a great thing, that we're moving from 12 to 106," but we have not really looked at the ramifications of the 106-mile site, particularly in light of the statements made today, which seem to give the impression that there isn't much discussion about alternatives to the 106-mile site at this point. It looks like it may be used, you know, for some period of time. We have to start asking these questions.

What I am basically planning to do, is use the questions you have asked, and address those to Mr. Daggett, when he testifies next. But, before we do that-- I'm not sure I understood the last thing. Your written statement has six, and then there was a seventh item mentioned.

MR. BELCARO: I will supply those three questions also written, sir.

SENATOR PALLONE: Okay, but what was it about the 15-mile-per-hour release rate and the six months? Just repeat that for me, please. Do you have that written here now, you mean, that we can have it?

MR. BELCARO: Yes, I have it written out here, but by hand, that's all.

SENATOR PALLONE: Okay. Will you let me have a copy of that? (witness complies)

MR. BELCARO: I just scratched it out by hand.

SENATOR PALLONE: Oh, okay.

MR. BELCARO: Can you understand it?

SENATOR PALLONE: Well, you're going to be here, aren't you? You're going to stay? (affirmative response) Well, I don't have any other questions, so why don't we just proceed? Thanks again.

MR. BELCARO: You're welcome. Thank you.

SENATOR PALLONE: If you would wait around-- What I plan to do now is ask Mr. Daggett from EPA to come before us, and then after he testifies, I know we have a couple of elected officials here. Mayor Adams, is it possible for you to stay until-- (negative response from audience) You can't? Do you just have a brief comment to make? (affirmative response) All right, why don't you come up and give us that, and then we will have Mr. Daggett. Councilman Manning, is he-- I think he said he could wait for another half hour or so.

This is Mayor Frank Adams, from Spring Lake Heights.

M A Y O R F R A N K E. A D A M S: Thank you, Senator Pallone, and Rich-- He was here before.

SENATOR PALLONE: He's still here; he's coming back.

MAYOR ADAMS: Thank you for allowing me to testify before the Committee on ocean pollution. At the present time, I am the Mayor of Spring Lake Heights. I have been on the governing body for about 15 years. Of course, having lived at the shore with my family all my life -- most of my life -- we have thoroughly enjoyed not only the swimming, but the fishing, and everything that goes along with the enjoyment of the ocean.

We heard dialogue in the past about cleanup of the ocean. My concern is not only the moving of it to the 106, or this other site out in the ocean. I think by just allowing -- continuing to allow -- ocean dumping, we are just going to

continue to pollute this water for future generations. We are just going to wipe it out. I think by dumping out further in the ocean, we are just going to put it into the Gulf Stream, and it will then become disseminated throughout the entire ocean, rather than just being confined in the various areas you are talking about.

So, basically that I am suggesting, or requesting, is that we just continue to eliminate all ocean dumping and burning, and seek some alternate solution. I think one of the other gentlemen who testified prior to this, stated there are other means of disposing of our various sludges, as well as our toxic wastes. We are all in this environment, and we all have to clean it up.

Basically what I am suggesting is to eliminate all future dumping. Okay?

SENATOR PALLONE: Thank you. You know, Mayor, one of the concerns we have, as a Committee -- and I know all of the members share this -- is the "out of sight, out of mind" mentality. Although we are very much in favor of having the sites moved further out to sea, because we feel, scientifically, that it makes sense, and there would be less damage to our coastal waters, the fear is, if everything just gets moved out further to sea, we may be ignoring the whole problem. I, frankly, the Thousand Fathom Club, and others have indicated very strongly that we can't think in those terms, because ultimately a lot of this is going to come back to shore, no matter how far out to sea it is.

That was one of the main reasons I wanted to have this hearing today, not only to see what alternatives are being proposed in terms of moving sites further away, but also in terms of eliminating them altogether. So, I appreciate your concern.

MAYOR ADAMS: Just as that other fellow testified, if we put this out into the Gulf Stream, and the other areas where

the water really moves it, all we will be doing then will be disseminating it throughout the entire ocean.

SENATOR PALLONE: Exactly. Thanks again, and thank you for waiting so patiently.

MAYOR ADAMS: Thank you very much.

SENATOR PALLONE: Mr. Daggett, thank you for coming today. We appreciate it.

C H R I S T O P H E R J. D A G G E T T: Thanks, Senator. With me is someone who I think is familiar to you, Dr. Dennis Suszkowski, who is the Chief of our Marine and Wetlands Protection Branch in the Water Management Division at the agency.

If I may, I have complete testimony that I will submit in writing, and I will try to limit this to about five to ten minutes of comments. I hope to cover some of the key aspects you have been talking about today.

For the record, my name is Christopher Daggett. I am the Regional Administrator, U.S. Environmental Protection Agency, Region II. The region includes the states of New Jersey and New York, as well as the Commonwealth of Puerto Rico and the U.S. Virgin Islands.

I appreciate the opportunity to present an update on the status and use of the ocean dump sites in the New York bight, and to inform you of the various initiatives we have under way to manage and improve our precious marine resources. As I said, my complete testimony provides information on the 15 active dump sites in, or adjacent to, the New York bight. What I will do now is try to just review some of the key areas.

The dumping of waste materials is currently authorized by an EPA or U.S. Army Corps of Engineers-issued permit, or by court order. In 1985, approximately 7.2 million wet tons of municipal sludge were ocean-disposed from barges at the 12-mile site. Approximately eight million cubic yards of sand and silt were disposed at the Mud Dump site. Fifty-six thousand dry tons of wood debris were burned at the wood-burning site.

In the history of environmental protection, the concern for the ocean is relatively new. Before passage of the Marine Protection Research and Sanctuaries Act -- or MPRSA -- on October 23, 1972, there were few direct legal controls either inside or outside of the United States on the dumping of waste at sea. The MPRSA established, for the first time, a national policy of strictly regulating ocean dumping, by banning the dumping of chemical, biological, or radiological warfare agents and high-level radioactive wastes, and by authorizing a permit system for the dumping of any other materials in ocean waters.

Under the Act, EPA is authorized to administer and enforce the entire ocean dumping program and to issue permits regulating the dumping of all materials, except dredged materials, which are dumped under permits issued by the U.S. Army Corps of Engineers and are consistent with EPA criteria.

EPA or the Corps of Engineers may issue permits when it is determined that the dumping will not unreasonably degrade the marine environment. Basically, in reviewing and evaluating ocean dumping applications, the following criteria are applied:

- 1) The need for the dumping, which includes an analysis of the availability of land-based alternative disposal methods;
- 2) The environmental impact;
- 3) The impact on aesthetic, recreational, and economical values; and,
- 4) The impact on other uses of the earth.

Let me focus for a minute on the transfer of dumping operations from the 12-mile site to the 106-mile site. On April 1, 1985, EPA sent letters to all of the municipal sludge dumpers advising them of the decision prior to that of closing the 12-mile site, and requesting that they submit schedules for the shifting of dumping operations to the deep-water site. We then proceeded to negotiate phase-out schedules with each of

the sludge dumpers. As a result of our negotiations, Westchester County and Nassau County ended dumping operations at the 12-mile site in March, 1986 and June, 1986, respectively. Both counties contracted with private barging operations for the shift to the deep-water municipal sludge dump site.

The six New Jersey sewage authorities formed a joint venture to manage their future sludge dumping, and have contracted with private barging operations for the shift. The authorities committed to hauling a net total of 25% of their sludge to the 106-mile site through December, 1987, when the total phase-out goes into effect.

New York City began dumping 10% of its sludges at the deep-water municipal sludge dump site last April. The city decided it wanted to have its own fleet of vessels, and is in the process of constructing three new barges. The new barges will be brought on-line beginning in June, 1987, and will take 40% of the sludge to the deep-water site by September; 75% by November, and 100% by the deadline, December 15, 1987.

The negotiated schedules provide for the complete cessation of all dumping of municipal sludge at the 12-mile site by the year-end deadline. I might add that this has been embodied recently in law through the passage and signing of the Water Resources and Development Act of 1986, more commonly known as H.R. 6. We believe that the overall water quality of the New York bight should improve after the phase-out is complete.

With respect to the Mud Dump site for dredge materials, the ocean dumping of dredge material from harbor entrance channels was probably the earliest type of ocean dumping done, and it still accounts for the majority of material dumped at the present time. The economic viability of the Port of New York and New Jersey depends on the maintenance dredging of navigation channels and berthing areas. Many

shipping channels in New York Harbor are in areas where the natural water depth would prevent passage of modern, deep-draft vessels. Navigational channels for ocean-going vessels must be maintained at an average depth of 45 feet. To maintain these depths, eight to ten million cubic yards are dredged annually and are disposed of at the Mud Dump site. Dumping of dredge materials in the vicinity of the Mud Dump site dates back to 1914. The site is located approximately six nautical miles east of Highlands, New Jersey, and 10 nautical miles south of Rockaway, Long Island. The site is 2.2 square nautical miles. Water depths range between 50 and 90 feet.

On May 4, 1984, EPA designated the Mud Dump site for the disposal of the dredge materials from the Port of New York and New Jersey. At the time the site was designated, EPA restricted the amount of dredge material that could be dumped at the site to 100 million cubic yards. This amount was based on an analysis of the site capacity. Authorization to ocean dump dredge material at the site is granted under permits that are consistent with EPA's marine environmental impact criteria, but are issued by the Army Corps of Engineers. Monitoring data collected by the Corps and EPA show that the impacts of dredge material disposal are primarily limited to the dump site itself. The placement of dredged muds on an otherwise sandy continental shelf has changed both the topography and physical characteristics of the ocean floor.

Last November, the President signed into law -- as I mentioned earlier -- H.R. 6, the Water Resource and Development Act of 1986. There is a requirement in the law for EPA to designate a new Mud Dump site no closer than 20 miles from shore, within three years. Before permits can be issued, land-based disposal options must be explored. The Corps of Engineers' New York District, with the cooperation of EPA, is actively investigating non-ocean disposal alternatives. These include using the dredge material for sanitary landfill cover

or as beach nourishment, and disposing of the material in subaqueous burrow pits and in containment islands.

Each permit application for use of the Mud Dump site is evaluated in terms of the alternative disposal options that exist, along with the other ocean-dumping criteria. The disposal options studied and implemented by the Corps are being incorporated into a Dredge Material Management Plan for the Port of New York and New Jersey. This plan allows for the proper matching of a particular dredge sediment with an appropriate disposal option.

EPA and the Corps are working on a memorandum agreement that will address site management and control and the possible selection of an alternative ocean disposal site. EPA endorses the Corps' efforts, and will continue to play an active role in formulating studies, reviewing results, and implementing new disposal strategies.

With respect to the wood-burning site, for nearly 20 years, wood debris has been ocean-burned at an interim wood-burning site located approximately 17 nautical miles off of Point Pleasant, New Jersey. We are currently working on the final designation of the site, and an environmental impact statement is under way. This spring, EPA plans to release a draft EIS concerning formal designation of an ocean wood-burning site.

Since 1977, approximately 90% of the wood waste burned at sea has come from the Corps of Engineers' drift collection and drift removal programs. The projects are sponsored by the Corps of Engineers, the states of New York and New Jersey, the Port Authority of New York and New Jersey, and the City of New York, to address the long-term sources of wood debris. Under the drift removal and collection programs, the Corps and its contractors collect deteriorated shoreline structures and wood debris that have floated down the Hudson River into New York Harbor. Removal of derelict and sunken vessels is also encompassed by the program.

Last summer, several incidents were reported of wood falling off burn barges while in transit to the site and during burn operations there. It was also reported that a number of commercial and recreational vessels sustained damage as a result of floating wood, much as was described a few minutes ago.

Recognizing the seriousness of this problem, EPA met with the Corps several times, and agreed on a plan of action that was put into effect last fall. The plan requires a Corps inspector to make sure that barges are loaded at the job site, with no intermediate transfers allowed; that barges are inspected prior to departure to the burn site; that a Corps ship rider accompanies all barges; that transit occurs during daylight hours; that the barges are ignited during daylight hours; and that a trailing vessel provides 24-hour surveillance of the entire burn operation, and retrieves any wood that falls overboard. This plan, with additional surveillance by the U.S. Coast Guard, is in effect now, and will continue under any new permits that are issued. Both New York City's and the Corps of Engineers' permits to transport waste wood to the site where it is to be burned expired last year. Both permits were extended, pending a decision on application for new permits.

EPA held public hearings on both permit applications in July, 1986, and the hearing officer's report will be released later this week.

One last point on that: Following that report -- the release of that report -- I will then review it, and within 30 days will make a decision on permits.

SENATOR PALLONE: Is that report going to be made public at the end of the week?

MR. DAGGETT: Yes, it is a public report.

SENATOR PALLONE: We would like to get copies of it.

MR. DAGGETT: Absolutely, we will send them out. As I say, it will be later this week.

EPA is working with the New Jersey Department of Environmental Protection, as well as with the Corps of Engineers, to establish supplemental means of surveillance of wood-burning operations. A memorandum of understanding between DEP and EPA was recently developed, empowering DEP to act on behalf of EPA to provide 24-hour-a-day surveillance of all wood-burning operations. I signed that agreement about two weeks ago and sent it on to DEP. I expect that they will have it signed any day, literally.

SENATOR VAN WAGNER: They will be allowed to enforce penalties, too?

MR. DAGGETT: Penalties are not part of that, no. It is a surveillance--

SENATOR VAN WAGNER: So it's surveillance only?

MR. DAGGETT: Yes.

SENATOR VAN WAGNER: And reporting is to the Coast Guard, or to you?

MR. DAGGETT: I guess it is to us initially, yeah.

SENATOR VAN WAGNER: Do you then levy penalties?

MR. DAGGETT: It depends on the nature of the violation. We can take any number of different actions. In any event, we will, of course, continue to work closely with the Coast Guard on surveillance, and take any enforcement action, as I just indicated, where appropriate.

With that, why don't I let you ask any questions you have? As I said, I have complete written testimony which I have submitted.

SENATOR VAN WAGNER: Does your enforcement action include the possibility of revocation of the permit?

MR. DAGGETT: Yes.

SENATOR VAN WAGNER: It does?

MR. DAGGETT: Yes.

SENATOR VAN WAGNER: How many permits thus far, under any condition, have been revoked as a result of haphazard or deliberately negligent operations -- none?

MR. DAGGETT: None.

SENATOR VAN WAGNER: Do you anticipate, based on what you just recommended -- and I assume this has already been implemented -- there may well be either denials of renewals of permits, or perhaps even revocations, in the event that dumpers, or those contracting to dump, do not meet the surveillance requirements, or the criteria, or whatever?

MR. DAGGETT: I think the measures we have outlined, and what we have implemented now, are indeed getting on top of the problem, which, admittedly, was not a good situation last summer. I really believe we are well on our way to solving those problems, but I would add that I would not hesitate to take whatever actions are necessary against people who violate those permit conditions, including revocation, if necessary.

SENATOR VAN WAGNER: In earlier discussions, which revolved around a number of areas that many people who testified felt were being violated, or else the law was not being enforced, or else surveillance was not being properly carried out, one of the things mentioned was that it was clearly felt that the first time someone got rapped very strongly around the head and shoulders on one of these violations, it would send a very strong signal to people -- not that it would end it. There was a feeling that perhaps over the years, all agencies involved -- not just Federal agencies, but all agencies involved -- have not really coordinated their surveillance activities, and certainly have not aggressively enforced the law.

MR. DAGGETT: I can't-- As you know, I have been there for two years now in this position.

SENATOR VAN WAGNER: I know that.

MR. DAGGETT: I am not sure of all the details of past activities. At the moment, frankly, I would rather focus on where we are. I think, at this point, we are in a much better position to have coordination of surveillance activities, through the actions we have taken in the last few months.

SENATOR PALLONE: He still looks healthy, even though he has been there for two years.

MR. DAGGETT: Pardon me?

SENATOR PALLONE: You still look healthy, even though you have been there for two years.

MR. DAGGETT: One of the points I would like to make, though, is, as you know, developing cases against people -- I mean, ocean dumping or whatever, is not easy.

SENATOR VAN WAGNER: It's not easy. I understand.

MR. DAGGETT: One of the difficulties we have had, frankly, is that in some cases when people have alleged certain situations occurring, we haven't been able to get them to sign statements making those formal charges, essentially. We have had varying difficulties associated with enforcement activities, which have a wide range -- that cover a wide range of problems we have had. But it takes, in the end, quite a bit to develop a case. We have tried, in some instances-- In fact, we have some investigations still under way, frankly, which hopefully will bear some fruit. Again, if we can make a case, I won't hesitate at all to take whatever action is necessary.

SENATOR VAN WAGNER: In that regard, Chris -- and I don't want you to think I was setting any trap, because I wasn't -- okay? -- I'm not-- I am not here to point fingers, or anything of that nature. We have heard a lot of discussion about the difficulty in surveillance and monitoring. You have just outlined the difficulty in when we do have surveillance and we do have monitoring, and we have someone in a "gotcha" situation, it is still hard to do anything at that point.

MR. DAGGETT: Let me stop you there, if I may. I am not so sure that's-- I don't think the complaints we have had were through a formal surveillance, mostly. They have been, unfortunately, after an event has occurred, like a boat running into wood, or someone seeing a barge going out that looks like

it is improperly loaded, or a burn that might have started at a location not where it should have been. So it is more the informal surveillance I am talking about. The more formal surveillance, I think--

SENATOR VAN WAGNER: Has resulted in penalties being levied?

MR. DAGGETT: Not in penalties, per se, but it has allowed us to begin the development of cases against people, yes.

SENATOR VAN WAGNER: See, I think what a lot of people find frustrating in many cases, is the fact that we hear about these incidents. We hear from hearings that increased surveillance is going to take place and be implemented. We hear that the surveillance has taken place and has been implemented. Yet, by the same token, it does not appear that the continued practice, for example, that may or may not be alleged -- short dumps, or whatever-- They do not seem to be discouraged, and over the last decade that I have been attending these types of hearings, it is almost like a continuing kind of thing.

I suggest again, and I ask again, that perhaps ocean dumping, per se, ought to be sidelined as, you know, not a non-alternative, but one which we will only do if we are forced to do it, or implement interim solutions, such as 106 miles; that we will, as fast as we can, put on track, methodologies for eliminating altogether the necessity for burning at sea. You know, I keep hearing about alternate disposal methods. I think that from what I have heard today, and from what I have heard of other hearings, that that is the least-case situation we want to be in. Somehow or other -- I don't know whether through EPA or through the Congress or through the combined Governors of these coastal states -- I think we have to start to climb on top of, how do we get this material reduced in volume? How do we start at least the process for generations

to come, of eliminating the kinds of chemicals, perhaps, that go into the make-up of this, and not just in a Draconian fashion by saying we are not going to produce this any more, and 15,000 people suddenly face economic disaster, and companies, and so on, but in a kind of concerted effort to try to do this?

I know that sounds trite and fundamental and not very exciting, but in listening to all of the comments, it seems that no matter what we say, either there is a hole in the surveillance, or if there is strong surveillance, we have failed to make a strong case. We don't seem to be making any headway, not because agencies are not responding, but because, I feel, we have a situation that is almost impossible to monitor and enforce. Once these barges, or ships, or whatever go out, it is very difficult.

MR. DAGGETT: Yeah, and I don't want to disagree. It is indeed difficult to monitor. But, you touched upon, probably, what is ultimately the ideal solution; that is, obviously we have to do a better job, not only in this State, but elsewhere, of reducing waste at the source, and not generating the waste in the first place. The problem is, we are a long way from even a small percentage of reduction.

SENATOR VAN WAGNER: Yeah, but let's get to step one, you know.

MR. DAGGETT: You're right. Don't get me wrong, we have to go a step at a time, and we have to make the effort. But, let's say we could do it, and let's say we could reduce things by 50% over 10 years or 20 years. The problem is, for those 10 or 20 years, we will still have all of the waste; plus after that, we still have 50% to go.

SENATOR VAN WAGNER: I'm not saying throw the baby out--

MR. DAGGETT: Oh, no, I understand you're not, and I am not interpreting you as saying that. I guess what I'm

saying is, in the end, we are going to have some level of waste, and we are faced with three alternatives: We can put it in the air, in the land, or in the water. Those are our only three alternatives with the waste we generate. Frankly, my approach has been that in each of these instances, we are trying to identify what is the least environmentally damaging alternative, whatever the waste we're dealing with -- whether it is a toxic waste we're dealing with on land, or whether it is something we're dumping in the ocean, or something we're burning and putting into the air.

On the question of permits in the ocean, one of the things we press on the permits -- and we do -- is that they have to go through an alternatives analysis, and make a case for the fact that the best alternative, if you will, is ocean dumping. With respect to wood burning, there is an awful lot of wood collected, as you know, which is piers breaking down, it's sunken materials, and so on.

SENATOR VAN WAGNER: I know what it is, and it is creosoted.

MR. DAGGETT: That's right. The upland alternatives that everybody talks about are not as easy as we like to think they are, partly--

SENATOR VAN WAGNER: No, you wouldn't want to site a landfill.

MR. DAGGETT: Well, not only site a landfill, but those that are already sited don't want to deal with the kinds of volumes we're talking about, because they so quickly fill up their landfill space. When you try to break up this wood, you have all kinds of problems with the fact that a lot of it has metal spikes and other things in it that tear up anything used to shred -- used to break up the wood in the first place. Some of the wood is actually reused. We do get wood-- Not all of the wood that is picked out of the water is burnt. Some does find some sort of a commercial use, and it is looked at for that purpose.

But, when it passes through all that, you still end up with this volume of wood on which, at least until now, the decisions have been that the best alternative of admittedly -- the lesser of evils, if you will -- is to take it out and burn it at sea. That is where we have been, and where we continue to be at the moment. But, believe me, we will continue to press for alternatives, and we will try to find them if we can. When we find them, we are going to implement them.

SENATOR VAN WAGNER: See, I guess what has me frustrated, is that I understand that, but it seems to me that at any level -- all right? -- I have never seen, clearly stated, a policy that says, "Look, these are the interim alternatives. Unfortunately, we are faced with these rather difficult decisions, which provide us with the least possible solution, and we recognize that. So we are making this statement, from this date forward, that the following strategic steps are being taken to bring about solutions that will end us having to make decisions about where we dispose of something."

I realize that sounds very cute, and perhaps it doesn't solve many problems, but certainly when the medical profession and other people concerned with public health got on the bandwagon about cigarette smoking, for example, it took a long time. It took a long time to get the advertising off. It took a long time to get the tobacco industry to come around to putting labels on the packs. It was a long educational process, and I'm not saying that this isn't, too. But, if our agencies of government don't continually take the lead, in my opinion -- and the State included; us, too -- and continually develop working solutions, or working groups to continue toward this, with chemical industry representatives, or anyone else who is a possible disposer, toward bringing people along to an ultimate solution, we will be back here every five years talking about what we are going to have to do -- increase our monitoring, surveillance, etc. It is never ending.

MR. DAGGETT: I think that process is more in place than you think. Admittedly, it doesn't--

SENATOR VAN WAGNER: Well, I hope so; I haven't seen it.

MR. DAGGETT: --exist quite the way you described it, but it is embodied in the various requirements when people put in permits, that they, indeed, have to look for alternatives. We put them through an alternatives test. There are different committees, at all kinds of levels, that are trying to address various issues -- whether they be ocean issues or toxic waste issues.

SENATOR VAN WAGNER: But, see, not together.

MR. DAGGETT: Pardon me? No, you're right.

SENATOR VAN WAGNER: That is where the hole in the dike is. We're working in 10 streams.

MR. DAGGETT: It's one at a time, rather than-- Right, there is no question about that. But the difficulty, I think, is that it becomes such an overwhelming problem to look at it in that big picture. Frankly, I am just not sure. I wouldn't mind trying it both ways at the same time, because I am not sure we are getting the best solutions looking at them one at a time. I certainly know I run into problems where it is almost-- You could look at the organization even of EPA, for example. When it was first structured in 1970, it was neatly broken out into water, air, hazardous waste, and so on. Well, now, virtually every problem we deal with is multi-media, so we are constantly trying to figure out how to get our own staffs to look at it holistically.

SENATOR VAN WAGNER: But, see how we found a word; we found multi-media. We found all kinds of words to describe what we are doing, but I think sometimes if we just told the public, "This is what we're doing, and this is where we need you to put pressure on any avenue you can--" I honestly don't see a lot of that coming out of the State, or, to some extent,

the Federal government, or local governments. I guess my feeling -- as simplistic as this may sound -- is that we have heard a number of very interesting points made today. Everyone had a solution. It just seems illogical to me, in this great country we have, that we can't -- somehow or other -- develop a mechanism for bringing these people together, for bringing together a central bank for these ideas, and have the policy makers pursue it, not just say, "Okay, yeah, we are going to do this," but really pursue it.

MR. DAGGETT: I would welcome the opportunity to work with you on developing something like that.

SENATOR VAN WAGNER: I know you would; that is why I bring it to you. I think you are one of the bright, young people we have entering this field.

MR. DAGGETT: Well, I'll tell you: We are running into -- in virtually every area we are dealing with -- the rock and the hard place now. In water, we've gotten a lot of the conventional pollutants taken care of through our wastewater treatment systems. Now we are moving into the area of toxics. We know so little about them scientifically, in terms of health impacts, and yet we can detect things down to just microscopic levels. I mean, parts per trillion we measure things in now.

We've got the sophistication of detection, but not the understanding the health impacts. What it is doing is creating a process where, because of unknowns, we are not taking any action. If there is any doubt, rather than say, "Okay, we'll go with the best we've got now, make a decision, and run with it for today. We're not turning our backs on it; we'll keep looking at it, but we've got to make a decision," we don't even make decisions any more. We keep putting them off and putting them off. Our landfills all across the State are prime examples of that. Our hazardous waste disposal is a prime example. We need to develop some sort of a process where we can start looking at these things.

I have struggled and spoken out on it publicly at any number of locations, and I--

SENATOR VAN WAGNER: I know you have; that is why I brought the point to you.

MR. DAGGETT: --would love to work with you in any way you would like, to try to grapple with that, because it is probably the toughest problem we face -- or one of the toughest we face in this State right now.

SENATOR PALLONE: Are there any further questions?

SENATOR VAN WAGNER: Just a repetition of an earlier suggestion, and however you want to proceed.

MR. DAGGETT: There was a gentleman who just made a presentation about the 106-mile site. May I comment on that? Obviously, right now sitting here, I don't have the answers to all of his questions, but--

SENATOR PALLONE: We will provide you with a list of them.

MR. DAGGETT: Yes, I'm sure. If you don't, I'm sure others will.

But, seriously, the sites are designated, in part, for short periods of time. As you know, the designation for the 106-mile site is five years, and then it has to go through redesignation, if there is a need for it as the time goes. Part of it is to be able, hopefully, in the interim, to get the kinds of information like this gentleman presented, and review it, and see how it fits relative to all the other sorts and bits of information we have.

SENATOR VAN WAGNER: Chris, more than that; more than that. If, as part of the condition of that permit, there was a requirement at the end of five years to reach a specific target as to how much less should be being burned out there, and that various types of alternatives would continue to be pursued to reduce that, then I think we would have our hand on something. But, if we simply issue a permit subject to certain criteria,

and say, you know, "Five years from now if you want to be redesignated," in my view at least, and I am not second-guessing your agency -- I realize there are a lot more complications to it-- But, if we simply do that, then that is simply all that will happen.

MR. DAGGETT: Let me tell you how that works against us a little bit. As you know, there is a requirement that by July '88, every community be at secondary treatment for their sewage.

SENATOR VAN WAGNER: Out of the ocean, right.

MR. DAGGETT: No, not out of the ocean; I'm talking about secondary treatment for their sewage.

SENATOR PALLONE: Secondary treatment for their plants.

MR. DAGGETT: Secondary treatment is a level of treatment of sewage--

SENATOR VAN WAGNER: Well, we've moved deadlines along, yeah.

MR. DAGGETT: But that is a level of treatment of sewage that generates more sludge. Right now, we have far fewer dumpers of sludge than we have ever had.

SENATOR VAN WAGNER: Six.

MR. DAGGETT: But, we've got a lot more sludge going out there. The reason is because we are generating all the more sludge. Now you say, "Well, let's figure out an alternative for the sludge, either burn it, or maybe land-apply it somehow." Well, as you know -- and I don't even know all of the details as well as some of the people, I think, at DEP -- some of the efforts for land application that have gone on, have resulted in tremendous local opposition from people who say, "Land-applied sludge? My God, you're going to ruin our land. It is going to pollute the environment, and we won't be able to grow crops," or whatever it happens to be. So, you have a constituency that is going to tell you not to land-apply sludge. Then when you go into burning it, you have to worry about the air permits, and in this region--

SENATOR PALLONE: These are the things that were discussed earlier.

SENATOR VAN WAGNER: I know that.

MR. DAGGETT: --we have such an air pollution problem. I mean, no matter which way you go, you are going to run into a problem.

SENATOR VAN WAGNER: I don't mean to do this, but--

MR. DAGGETT: It's frustrating. Sit where I sit for a while.

SENATOR VAN WAGNER: I know you have to get to specific issues, but we're in specific issues. We are in the specific issue of the fact that for years we have pushed communities, sewer authorities into secondary treatment. Today, we're having our own State officials telling us that the very treatment they mandated to solve a problem, has created an even bigger one. Okay?

MR. DAGGETT: Or a new one, at least.

SENATOR VAN WAGNER: Or a new one. What I'm saying-- You know, there is a statement about, "He who does not study history," or something, "is doomed to suffer" something or other. I am not good on slogans or statements, but--

You know, having the history of that, and knowing we have done this, obviously we have to set off in a new direction. The directions have to do concurrent with the interim solutions we are offering people. You could get 50 different opinions in here as to an interim solution. So, I know you have to make the hard choices, but somehow, along with those hard choices -- some of which have not been correct in the past -- we have to start, at least, to break new ground in terms of researching methods, continually, of volume reduction, source reduction, and maybe microbiological approaches to reducing the contaminated kinds of materials. I don't know. You know, I am not a scientist.

MR. DAGGETT: Actually, I am really encouraged by the amount of research I see in those areas. There is a lot going on.

SENATOR VAN WAGNER: I'm not.

MR. DAGGETT: Well, at the research level, there is a lot going on in terms of alternate ways to handle sludge, to handle toxic materials, to handle--

SENATOR VAN WAGNER: But it's not out on the front shelf, Chris.

MR. DAGGETT: Oh, no, not yet, but that takes-- Obviously, the research process takes time, and then to put it into the commercial process, generate a market for it, and so on-- But, I think there is more research than certainly generally meets the eye. I have seen a lot of--

SENATOR VAN WAGNER: Which means we may be closer to solutions than we think.

MR. DAGGETT: Yes, that's true. But, again, that is partly why you have these five-year designations. You have to revisit this question continually, so we're constantly saying to ourselves, "Is this the best way?" and if it is not, we have to change it, even if it means more money being spent, yet obviously -- as you said earlier -- respectful of economic balance somehow, so we don't end up bankrupting a whole lot of people over the process. It is always a balance we are involved in.

SENATOR VAN WAGNER: But, the goal is the preservation of the resource.

MR. DAGGETT: Absolutely; absolutely.

SENATOR VAN WAGNER: At some point, we may have to make that very hard choice--

MR. DAGGETT: I know. I have had to make a few of those.

SENATOR VAN WAGNER: --in terms of economic balance, including us up here.

MR. DAGGETT: Exactly.

SENATOR VAN WAGNER: I'm sorry.

SENATOR PALLONE: No, I appreciate what you're saying, because you're being very, you know, long-term and philosophical about what has to be done, and I think that is important. Too often, we stress the short term, and we don't think about what we have to do over a long period of time.

SENATOR VAN WAGNER: I get accused of being philosophical, but I think I'm being practical.

SENATOR PALLONE: That was a compliment; that was a compliment.

SENATOR VAN WAGNER: I think I am being practical.

SENATOR PALLONE: No, no, I'm complimenting you, because I think that too often we get bogged down in details, and do not look at the overall picture. I'm not just complimenting you because you're my friend, but because I agree with you.

SENATOR VAN WAGNER: I'd vote for you anyway, even if I lived in Staten Island.

SENATOR PALLONE: Just a few things now, because I am trying to categorize this into five areas, and basically you talked about three of them. On the wood-burning site again, the hearings we have had over the past couple of years have been on the interim designation. What you talked about today -- what you mentioned -- was that there is going to be a final designation some time next year possibly, and that the EIS is being prepared for that.

MR. DAGGETT: Yeah, this spring.

SENATOR PALLONE: Obviously, that disturbs us, in light of what Senator Van Wagner was saying before, which was that we really don't want to see wood burning continue over a long period of time. If there is a designation of this site on a somewhat permanent basis, we have kind of lost the battle. I guess what I'm saying is, my understanding was that not too

long ago, there was a place in New Jersey -- I think I remember Hudson County being mentioned -- where the materials were burned, and that for some reason that was discontinued. Has that possibility-- Do you know why that incinerator was closed, and why we are not looking in terms of that alternative again?

MR. DAGGETT: Let me have Dennis go into the details. It was over air pollution problems, I believe, associated with it, but let me have Dennis go into detail.

D R. D E N N I S S U S Z K O W S K I: I am not aware of any incineration site that was actively used in Hudson County. I think if you trace history back, you will find wood and other debris, even dead animals, horses and things like that, were burned just--

SENATOR PALLONE: I am just going back to July, when it was mentioned at the hearing. You were at the hearing.

DR. SUSZKOWSKI: I think what was mentioned was that the Corps of Engineers had built an incinerator in Jersey City, and planned on using that, at least operationally for the day-to-day wood they picked up.

SENATOR PALLONE: Yes?

DR. SUSZKOWSKI: The problem was, they were never able to get an air permit. They had problems especially with some of the particulates, which happened to be some of the salt that was impregnated with the natural saltwater. I think some of the metals were also a problem. Eventually, the incinerator was torn down, because it could no longer be utilized.

SENATOR PALLONE: As part of the EIS, is this type of operation being considered as an alternative to continued wood-burning at sea?

DR. SUSZKOWSKI: Yeah, that is one of many that are being considered. I would just like to comment on the designation as well. The process is really threefold: Do we designate a site? If so, where will it be? And then, is it

the same site, or is it somewhere else? So, we are not committed right now to having an official designating of the site we see now.

SENATOR VAN WAGNER: What is the length of the designation?

DR. SUSZKOWSKI: It's up in the air right now. The EIS will address the impacts of no action alternative of not designating a site, versus other sites, as well as the present site.

MR. DAGGETT: Was it a three-year or five-year site? (no response)

DR. SUSZKOWSKI: But that is something that wouldn't be done until rule-making after the EIS process.

SENATOR VAN WAGNER: How about a one-year? Is it ever less than three years?

MR. DAGGETT: Not usually, because it is a lengthy process, and you usually do it for three to five years for a site designation. That is not permits; that is just the designation of a site. In the event you issue a permit, you have a place to actually do it.

SENATOR VAN WAGNER: But is the permit issued for three years, five years, one year, two years?

DR. SUSZKOWSKI: It is a maximum of three years. Right now, it is a one-year permit, because there is not a final designation.

SENATOR PALLONE: Now it is on an interim basis.

DR. SUSZKOWSKI: Yeah.

SENATOR PALLONE: The distinction, again, between-- You know, in July, at the hearing-- At that point, the only significant monitoring I remember having any discussion about, that was imposed on the permittees at the time, was their own monitoring. You said that since that time the EPA now has a monitoring program, and that DEP is going to get into one. I am not sure I understand that. You said the barges are going

to be inspected prior to departure, okay? A court person will be on the vessel, okay? And, at the same time, there is going to be another vessel trailing which is under EPA's authorization. What is that?

MR. DAGGETT: It's contracted out also. In other words, it is done, I guess, by the contractor. He is responsible for having a trailing vessel.

SENATOR PALLONE: Yeah, but, in other words, is that vessel-- Are we talking about EPA?

MR. DAGGETT: It is not an EPA vessel; it is not a DEP vessel.

SENATOR PALLONE: So that could very well be-- It's a private party they are paying for?

MR. DAGGETT: Right, exactly.

SENATOR PALLONE: Oh, okay. Well, that is a little different from what I thought. So there is actually no-- What EPA has proposed -- or, I guess, what is already in effect -- we don't have an agency, either the EPA or the DEP, actually accompanying this with a separate vessel?

MR. DAGGETT: We do not put ship riders on the boats in any fashion, no.

SENATOR PALLONE: All right. Now--

MR. DAGGETT: DEP-- I am not sure on that agreement if they are actually going to go out -- all around to the site.

SENATOR PALLONE: Well, that is what I wanted to know, because I was told, Chris, in October, that DEP, as part of this memorandum understanding, was, independently of Weeks, or whoever is doing the burning, going to have their own person at the harbor before the vessel leaves; that they were going to have a separate vessel -- I don't know what kind -- under DEP's auspices, going out with the vessel, watching it burn, and coming back to shore. That is what we were told. Is that what was going on there, or what?

DR. SUSZKOWSKI: Yeah, I think the agreement allows for any of those things to take place. It will be up to DEP, I guess, to determine what the resources are to allow that to happen.

SENATOR PALLONE: So, in other words--

DR. SUSZKOWSKI: It is my understanding, though, that their intent was to have essentially a full-time person observing both the loading and the burning operation, at a minimum. If that was being done either-- What our authority does is allow them to have access on to those vessels. If they choose to use, say, a State Police vessel, whatever, that is up to them.

MR. DAGGETT: The point being, we have given them the opening, if you will, to do it. Whether they have the resources to do it and actually do it, is more up to them.

SENATOR PALLONE: Okay. So, as far as you are concerned, what you are currently doing now--

MR. DAGGETT: We are empowering them to do it.

SENATOR PALLONE: --is having a Corps person on the burning barge, in effect -- right?

MR. DAGGETT: No one is on the burning barge, hopefully.

SENATOR PALLONE: Well, I don't mean on the barge.

SENATOR VAN WAGNER: Nobody is on the burning barge, Frank. The last guy who was on a burning barge is 8000 feet down.

MR. DAGGETT: You may have some friends you may want to have sent out there.

SENATOR PALLONE: You have the Corps person on the vessel who is towing it out, right?

MR. DAGGETT: Right.

SENATOR PALLONE: And you have a contracted person who is trailing to pick up loose materials.

MR. DAGGETT: Right.

SENATOR VAN WAGNER: Contracted by the man.

SENATOR PALLONE: Contracted by the man.

MR. DAGGETT: Contracted by the burning -- by the Corps, or whomever it is who has the permit.

SENATOR PALLONE: You know, in all honesty, given what Joe said, and the discussion we had, that is not really that much.

MR. DAGGETT: Well, keep in mind -- Dennis just reminded me; I forgot -- that the Coast Guard also has its own surveillance program.

SENATOR PALLONE: Yeah, but that is what was already required before July?

MR. DAGGETT: Okay, right.

SENATOR PALLONE: Now, this has started since July? There have been vessels going out there under these new rules?

MR. DAGGETT: Yes, yes.

SENATOR PALLONE: But, then, the key to this whole thing really, it seems to me, is what DEP is going to do now that you have given them the authority to do their own thing. If they are going to independently go out there with their own vessel, which is what they are promising-- Otherwise, I don't think we have much.

SENATOR VAN WAGNER: We don't have anything.

MR. DAGGETT: Well, no. The trailing vessel is more.

SENATOR VAN WAGNER: Who is watching the guy who is hired by the guy who needs watching?

MR. DAGGETT: That's right. Who's watching the guy who's watching the guy who's watching the guy?

SENATOR PALLONE: All that separate vessel that's trailing is doing really is picking up pieces that may fall off.

MR. DAGGETT: That's right, but keep in mind that the oversight at the loading operation is much better, too. That is a key, because one of the problems, I think, was that they were going out overloaded in the first place, so there was a greater possibility of the stuff falling off.

SENATOR PALLONE: I understand what you're saying.

MR. DAGGETT: Actually, the loading is videotaped, I believe, isn't it, by the Corps--

DR. SUSZKOWSKI: By the Corps.

MR. DAGGETT: --of Engineers. Consequently, we can go back if we have an allegation later on that it was loaded too much-- We can go back and inspect what actually occurred through the videotape. So, there are a number of things happening at the loading itself, that I think are going to help a lot, which will make it that the trailing vessel, hopefully, will not have a need to even pick up things, because it won't be coming off.

SENATOR PALLONE: I'm glad you're doing what you're doing. Don't get me wrong. I realize it is more than what we had before, but I really think the most important thing, other than phasing it out completely, is to have someone from DEP constantly monitoring, which is what they apparently have offered to do. We are just going to have to make sure that they do it, that's all.

Going back to the Mud Dump site -- the dredge materials -- I know it was stated before that you have three years to locate a new site at least 20 miles offshore. You said you are working on an alternative plan. You know, the PICG was also mentioned before. They are talking about subaqueous burrow pits, containment islands, whatever. Could you just give me an idea, are we talking three years from now just moving further out, or is there serious consideration being given now to these other alternatives?

MR. DAGGETT: I think serious consideration is being given to other things. I have to say, though, three years is a tough deadline. Siting new sites-- I mean, don't get me wrong; we are going to make every attempt to do it. But, that is an ambitious goal.

SENATOR PALLONE: But you are required by law to do that, right?

MR. DAGGETT: That's right; I recognize that. We have Superfund hammer deadlines on us, too, out of Congress, but I think, unfortunately, physically people aren't going to be able to meet them. Also, there is no magic I know of. We need to go back, frankly, and look at the passage of that law, and look at some of the testimony, and so on -- and some of the debate that went on. But I don't think there is any real magic to 20 miles, frankly.

SENATOR PALLONE: No, I agree with you.

MR. DAGGETT: In other words, we made the designation of the site we did because we felt it was the best site, given the different analyses we did. I don't know that there is any magic to 20 or 40 or 80 miles. Some people think that the further you go out, the more you impact some of the fishing areas.

SENATOR PALLONE: Well, that's true.

MR. DAGGETT: That is what we have to take a look at. So I don't know whether that law might have been put in -- that 20 miles -- and this is what I need to check, because I just don't know the answer-- It might have been put in just to get it further away from the coastline, assuming that if you did you wouldn't impact the coastline, without taking into account that you may have an impact on something else that offsets that gain from moving further out.

SENATOR VAN WAGNER: You know, earlier there were some serious -- I don't know how to put it -- perhaps allegations -- presentations made, that not only was the environmental question very much a problem, but that particularly this past summer here in New Jersey, along the coast, health problems have begun to arise. In fact, Senator Pallone knows better than I that beaches were closed in New Jersey this summer.

Has EPA developed any technique for relating some of the problems that are occurring from these dump sites -- or possibly from these dump sites -- with health effects, and coordinating that with the Federal agencies involved with it?

MR. DAGGETT: From all of the monitoring efforts we have done, and we've done a lot on our own, plus a lot in conjunction with DEP, we have not been able to identify any evidence that says to us that those sites are causing problems on the Jersey shore. I won't say categorically to you here that they are not, but certainly all the monitoring we've done -- and there has been a lot of it -- does not suggest that those sites are impacting the Jersey shore in any fashion. I have always felt that you could make just as sound an argument about some of the plants that are treating only at the primary level, and whatever, and discharging just off the coast a little bit. I think Asbury Park was one which particularly over the years has been discussed about the outfall. You may have just as good an argument made with some of that discharge coming back in and causing a problem.

SENATOR PALLONE: Oh, yeah.

SENATOR VAN WAGNER: No, they weren't saying where it came from.

MR. DAGGETT: No, I recognize that, and it is; it is probably just that. It is probably a combination of a whole number of factors together. That's why we keep plugging away at this. I have to say, overall, the water quality-- I have heard a lot of people say that water quality is worse. I disagree with that. I think water quality, over the years, has improved.

SENATOR VAN WAGNER: It depends on which way the wind blows.

SENATOR PALLONE: Yeah. We recognize the fact that there are all different sources. Basically, we have been having different hearings about the different things you have mentioned.

A little more about this 20-mile option: I don't want to give you the impression that I don't like the idea of moving 20 miles out. I think, in general, although I don't have the

scientific data in front of me, we feel that the further out it goes, the better off we are going to be. But, you know, the PICG-- I have been to some of their meetings, as Lou Figurelli mentioned earlier. For 10, 15 years now -- well, it's at least five years certainly -- they have been talking about these different alternatives. I would very much like to see one of those used instead of just moving it out to 20 or 25 miles.

I am just wondering where we are. You mentioned you have a working, or alternative plan, with the Corps. Is that something separate from the PICG? What is the status of it?

MR. DAGGETT: Let me have Dennis speak to that again.

DR. SUSZKOWSKI: No, they are one and the same.

SENATOR PALLONE: Oh, okay, that's what we're talking about.

DR. SUSZKOWSKI: Yeah, but I think we have come to a point-- You know, we say we have been looking at these for five or six years, and maybe we're not very far. I don't think so either. I think that in the time that has been spent, from a technical level, we're probably 90% to 95% there on all of these various options. We are coming down to a siting of the problem and an institutional arrangement problem.

For instance, with what Mr. Figurelli said, he doesn't like burrow pits in certain areas, yet endorses other areas. Well, the question becomes, if you want to dig a new burrow pit, where do you get the money to do it, and who can do it? The Corps can't do it right now; EPA can't do it right now. That is a legislative item that probably ought to be explored. Some of the options we are considering, like putting the material in some of the bays within New York Harbor, like Flushing Bay--

SENATOR PALLONE: Yeah, I know.

DR. SUSZKOWSKI: If you took a good reading of H.R. 6, you would find that there is specific legislation that bans dredge material from being deposited in those bays because of

the constituencies there. So, we come down to, not a technical -- necessarily technical -- issue on a lot of these options, but more one of, what do you like, what is preferable from a siting standpoint, and where can you go?

SENATOR PALLONE: But I guess what I'm saying is, the PICG has been meeting for a number of years, and there are a lot of people in this room who have been a part of it. You now have a three-year deadline to move the site to 20 miles. Are there plans afoot to say, you know, "Okay, 18 months from now we are going to establish a subaqueous pit as the alternative. We are going to have public hearings"? I just don't want this time to expire, without some of these alternatives being seriously considered, thrown out, decisions made. What's the plan of action?

DR. SUSZKOWSKI: I think you're right. I think each of the options has a time-line attached to it that the Corps has been maintaining and updating with us. The burrow pit has a time-line right now. We are in the process now of getting an environmental impact statement out. I think the dredge material problem is a very interesting one. It is the first time, in my experience in government, where you have every Federal agency involved in a decision as cooperating agencies in that EIS process. They all feel very strongly that they are committing the resources to get it done.

SENATOR PALLONE: But the only thing is, the PICG, the way I understand it, is just a working group, and they are coming up with suggestions. Are these going to be adopted at some point, or are there just going to continue to be studies out there?

DR. SUSZKOWSKI: The way the plan was originally designed, it was dynamic, with the idea of, hey, every one of these solutions will not have the same end date. But when there is an end date on one of them, it will be immediately implemented. I don't think we can lose sight of what has

happened. We are putting an awful lot of sand on beaches these days. We've got Sandy Hook, which was rebuilt through one project. Basically, that came out of the plan on utilizing it as a resource. We've got another company dredging Ambrose Channel and stockpiling material as a beneficial use, that came out of the plan.

SENATOR PALLONE: But the bottom line is, it may very well be that the only deadline we have right now is the three-year deadline. At the end of the three years, you are going to designate a new ocean dumping site, and we are still going to be talking about these alternatives. I don't see any time schedule, or anything that would indicate that any of those are going to be set up as an alternative before the three years.

MR. DAGGETT: You may be right. My guess is that you are going to hear people talking about alternatives in a lot of these different areas -- land, air, and water -- for many years, because we're just-- The real issue is back to the question of source reduction. We've got to start reducing things and getting the volume down to start out with.

SENATOR PALLONE: I guess I would just like to see-- I don't know. Maybe at some point we may have to have a separate hearing on it, or something, but I would just like to see some analysis--

MR. DAGGETT: Sure.

SENATOR PALLONE: --you know, of these alternatives versus the 25 miles or so, and where we're going. Maybe the Army Corps can answer that.

MR. DAGGETT: We would be happy to share with you in detail anything we've got on it.

SENATOR PALLONE: Going back to the third thing -- the sewage sludge -- I was a little concerned-- I am glad you gave me the schedule in terms of the different authorities. We asked DEP before to give us a schedule in terms of the six New

Jersey authorities, what contracts they are under, and all that. I was a little concerned about what you said about New York City. Right now, their 10% is going to the 106 miles--

MR. DAGGETT: Right.

SENATOR PALLONE: --but the new vessels will not be brought on-line until July. Then, in that short time period between July and December, they are going to go from 10% to 100%.

MR. DAGGETT: Yeah.

SENATOR PALLONE: I think you said July through December. Is this all on-line now? Is it really feasible for them to do that in such a short period of time, or are we going to face another extension?

MR. DAGGETT: We're going to get it. What it is, is, the different barges are coming out of line. We are coming out of construction. We continually check on this. Our understanding right now is that they are on schedule, and they're going to make it. The beginning of June, 1987, it will be 40%; November, 75%; and 100% by the end of December.

SENATOR PALLONE: It seems like they have to phase it in in a short period of time. In other words, all these barges are coming on-line in that short interval.

MR. DAGGETT: New Jersey is jumping from 25% to 100% in one day.

SENATOR PALLONE: I'm not going to make any excuses for New Jersey.

MR. DAGGETT: In other words, yes, they're all on tight schedules, but we understand they are going to get there. I have to say, in fairness to New York City--Everybody takes a lot of cracks at New York City about this, but New York City's sludge, by and large, is not as problematical in terms of what's in that sludge as are the sludges going from the New Jersey authorities.

SENATOR VAN WAGNER: How long will it take to destroy the environment at 106 miles, do you think?

MR. DAGGETT: The way you asked that question--

SENATOR VAN WAGNER: Well, why beat around the bush, you know.

MR. DAGGETT: The site was designated because it was felt--

SENATOR VAN WAGNER: Oh, I know. I don't mean-- Chris, I know. But, we're just moving the problem from one area to another.

MR. DAGGETT: There is monitoring going on during the whole life of the site. In other words, during the five-year period, there will be monitoring going on. That data will be collected, and we will try to assess whatever degradation, if any, is occurring, and take that into account in terms of any other additional designation of sites.

SENATOR VAN WAGNER: Do you think it is at all possible -- I know this is a difficult question to answer -- beginning very quickly -- as quickly as we can begin -- to set up some type of mitigation schedule, even though it appears that the interim solution is going to be to go out further? Is there at all a possibility, with all of the agencies that are involved, to develop a mitigation schedule that would gradually reduce -- or as quickly as possible-- I notice they can gear up pretty quickly to go out with 100%. I am just wondering how long you think we could take to begin to reduce the amount going out there by various means we might selectively begin to develop?

MR. DAGGETT: That's back to the alternatives. Frankly, maybe the best alternative in terms of pushing-- Well, let me back up. I am not sure--

SENATOR VAN WAGNER: Let's say we set a target, and say, "It's going to be hard, but we are going to try like hell to reach it."

MR. DAGGETT: I don't know the answer to the question of where research is to enable us to set targets that will force it to come out faster, if you will.

SENATOR VAN WAGNER: Well, how long would it take to determine that -- a consensus of the universities, colleges, academies of science?

MR. DAGGETT: I don't know the answer. Let me see if I can get some information and get back to you on it. But, I don't know the answer to that.

SENATOR VAN WAGNER: You know, like if somebody -- and I don't mean you have this responsibility--

MR. DAGGETT: But it's not a bad question. I understand where you're coming from on it. It is a perfectly appropriate question. I don't know the answer, but I would be happy to see what I could do to find out.

SENATOR VAN WAGNER: You know, you have all of these-- You hear these fancy words, like MBOs, and targets, and all. As fancy as they are -- and I know they are all buzz phrases -- you know, they do a hell of a lot of good sometimes. Sometimes you set yourself a target and a goal, and you surprise the hell out of yourself when you reach it.

MR. DAGGETT: Deadlines do wonders for people.

SENATOR VAN WAGNER: Yeah. I just wonder, maybe if we started to think in those terms, perhaps people would begin to have a little more confidence in the decision-making process.

MR. DAGGETT: Keep in mind, though, that EPA, as a regulatory body, is limited in what it can do in terms of those kinds of deadlines, because, as you know, essentially-- See, back in '79 -- or whenever it was -- when we first said, "No more dumping of sewage sludge," we lost court battles because we did it without looking at alternatives that might be viable, or might not be viable. In other words, the judge came back--

SENATOR PALLONE: Wait a minute, now. You weren't there at the time, but one of the problems was that EPA never appealed that decision.

MR. DAGGETT: That aside, I agree with you; that may be the case.

SENATOR PALLONE: It's not like you were -- I'm not saying you, Chris -- trying that hard.

MR. DAGGETT: I recognize what you're saying. However, there still is-- Whether or not it was appealed, there was a level at which, prior to whether somebody appealed it-- There was a decision made that said, "You didn't take into account the fact that there are no alternatives that are viable when you said, 'No more dumping.'" So, the court interpreted it to say we had to go back. Essentially, we are on court-ordered dumping right now, as you know -- the dumpers who are going out there. So we are somewhat limited in terms of how much we can do as an agency. We need some sort of a legislative mandate, if you will, before we can start to do that beyond a certain point.

So, yeah, I'll push it to the limit of what we can do, but it is somewhat like what I said about the Boston sludge at one point. I said that whereas I didn't favor Boston coming down and dumping off New Jersey's coast; on the other hand, as a regulator of the sites out there, if they dotted all the i's and crossed all the t's and met all the requirements of the permits, or all of the conditions -- the requirements that were set out -- we would have to issue them a permit. Now, as it turns out, that whole situation was avoided, but still, I would have been in an interesting situation having to face not wanting to do it, but maybe being required, almost, to go ahead and give them the permit.

SENATOR PALLONE: We didn't see that as one of your finest hours, I must admit.

MR. DAGGETT: No.

SENATOR VAN WAGNER: I don't think he did either.

SENATOR PALLONE: Let me ask you one thing, just going back to what Congressman Howard's statement said before. The sewage sludge site -- five years, okay? Paul gave me the impression -- Paul Caverly, the Congressman's representative --

that that has been legislatively mandated for five years. Does that mean that after the five years are out, that there would have to be new legislation to reauthorize it, or can you continue that 106-mile site?

MR. DAGGETT: No, as I understand it -- again, I wasn't here-- As Dennis understood the way he stated it -- it wasn't quite accurate -- indeed, our understanding is, at the end of that designation, another designation can be made.

SENATOR PALLONE: By you through regulatory procedure?

MR. DAGGETT: Through the regulatory process, right. Exactly.

SENATOR PALLONE: That is what I was afraid of.

SENATOR VAN WAGNER: He is correct.

MR. DAGGETT: That is our understanding of it.

SENATOR PALLONE: So, really, we don't really have anything at this point that would indicate we are going to phase the 106-mile site out?

MR. DAGGETT: No, other than we have the continual alternatives test on permits, and we will keep pursuing those.

SENATOR PALLONE: Do you have any plans over the long term, or any office looking into eliminating that 106-mile site after the five years?

DR. SUSZKOWSKI: What has been going on over the years is, through our Construction Grants Program, there have been a number of facilities built. I think Mary Buzby mentioned it at Rahway Valley.

SENATOR VAN WAGNER: We can't confirm it.

DR. SUSZKOWSKI: Passaic Valley has very nice filter press equipment that is just sitting there; so does Nassau County. In fact, in Nassau County, one of the dumpers who is now currently at the 106-mile site, just went out on bids for someone to come in and take their dewatered sludge away.

SENATOR VAN WAGNER: And get it watered in the ocean.

DR. SUSZKOWSKI: No, and go to an upland alternative. They are attempting to do it. I think if you asked the sludge authorities what they would prefer, they would prefer a land-base option, because they would have more control over it--

SENATOR PALLONE: Well, that's what we had-- We had testimony today.

DR. SUSZKOWSKI: --and they wouldn't have to deal with us, basically, in the regulatory community.

SENATOR VAN WAGNER: For example, I fail-- I will just ask you -- I wish DEP were here -- I fail to understand why, after making sewer authorities go to the expense of developing filter presses and drying sludge and reducing the volume of water, and everything like that -- requiring landfills to put in triple and quadruple liners, and requiring a certain mix of garbage -- ratio of garbage to sludge -- the dry volume of sludge-- I fail to see why we haven't even tried that out. You know, why not take some very dry sludge, with the proper ratio of garbage -- we don't have that many landfills left -- section of a site, make sure it is triple or quadruple lined -- many of them are required to be triple lined now, clay lined and plastic lined -- and find out whether or not we are not creating even a bigger problem?

You know, we keep talking about the least damaging alternative. I admit it's not a very good alternative to have to put this material on land, in any fashion, because of leachate problems, groundwater contamination, well contamination, any number of things. But here, you know, it seems to me that we are in a very delicate balancing act, and are closing in rapidly on the eleventh hour. We are running out of land in New Jersey. The water on our coast becomes more and more contaminated. Less and less people -- certainly local people -- are going to the beaches. The commercial and recreational fishing industry have been under severe stress from year to year, despite increases in tourism. This year we saw beaches close. There have been reports of health problems.

You know, it seems to me that we spent a lot of time today restating the problems; that we better get to conflict resolution real quick. We better give you the kinds of authority we need. We better get our own DEP under way. We better get the Governors of these several states and their respective conferences to start talking about this, and talking about it in a comprehensive fashion, whether we are talking about wood burning, hazardous waste, low-level radioactive material. We better get at this on a regional basis and a national basis, and make the hard choices, even those of us who are elected, who hate to make hard choices.

MR. DAGGETT: I couldn't agree with you more. In fact, in keeping-- As I said, I have spoken a great deal on this issue. I have been calling it "environmental gridlock," for lack of a better term.

SENATOR VAN WAGNER: It is gridlock; it really is.

MR. DAGGETT: I was fortunate enough to team up with the Eagleton Institute, and together we approached the Dodge Foundation and just received a grant for \$50,000, which we hope, with some additional moneys, we are going to use to put together a conference in September or October on these very issues.

SENATOR VAN WAGNER: Great, that's a start.

MR. DAGGETT: The conference this fall will be on this whole concept of environmental gridlock and how we can begin to grapple with a better process. It is well under way. You will hear more about this as the spring comes through and the fall.

SENATOR PALLONE: Chris, I think you missed this before when we were asking questions of DEP about their statewide Sewage Sludge Management Plan. One of the concerns we had, and one of the concerns which was voiced by sewage authorities, as well as by environmentalists, was, that management plan really does not discourage ocean disposal at

all. We mentioned that nationwide, New York and New Jersey now, I guess, are the only areas of the country which are disposing municipal sewage sludge at sea. I feel very strongly that our statewide management plan should discourage ocean disposal. I don't know if anybody has answered the question to me. I know they have hinted at it.

Why is it that New Jersey -- Region II, New York and New Jersey -- continues to encourage, or at least not discourage in any way, ocean disposal, now at the 106-mile site? Why can't we-- You know, if all of the other states have land-based or other alternatives -- incineration, landfill, or whatever -- why are we the one area that is singled out that is still doing ocean disposal? Have you seen our Sewage Sludge Management Plan? It was an issue today, and basically what was stated, even by the Rahway representative, Dr. Buzby, was that if anything, ocean disposal is encouraged, as opposed to the other alternatives. Why is it that New Jersey is in this position?

MR. DAGGETT: I can't answer that. I will be happy to try to get an answer for you.

SENATOR PALLONE: Well, that is what I would like to know. Every other state, other than New York and New Jersey, does not dispose in the ocean, yet we are moving the site out to 106 miles, and we're saying that is still, if not at least one of the alternatives, that that is the preferred alternative right now. I don't understand it.

SENATOR VAN WAGNER: I guess another way of saying it is, as all these other coastal states move toward alternatives and manage to develop them, we here in the New York/New Jersey region are left with the only ocean available for dumping.

SENATOR PALLONE: And we are not, in any way-- We're moving it further out, but we are not, in any way, coming up with alternatives. We are not saying that is a temporary solution. On paper, we may be saying it is temporary, but it doesn't seem to be.

MR. DAGGETT: I don't know the answer, but off the top of my head, it may be somewhat related to -- and maybe directly related to -- just the density question and the population in the State.

SENATOR VAN WAGNER: Land mass.

MR. DAGGETT: We just don't have the kind of land mass available to do it.

SENATOR PALLONE: What about New York State? They have plenty of land mass for their disposal.

MR. DAGGETT: I honestly don't know the answer, but I will get an answer for you.

SENATOR PALLONE: Yeah, because that is the thing that is frustrating me. In many ways, that is the thing that bothers me most as a result of this hearing today. We are being told that 106 miles is there to stay for a while, and that nobody on a state level, nor I think really on the Federal level, is discouraging it at this point.

SENATOR VAN WAGNER: You probably have upstate legislators in New York who might be subject to having their areas impacted by sludge disposal, or hazardous waste disposal, some of whom are already, who are saying, "Wait a minute. We attract 40 million tourists a year, including, by the way, the Governor of New Jersey. A lot of prominent people come here, and now you are going to use us as a dumping ground, because we have a bigger state than you."

SENATOR PALLONE: And you know another thing, Chris--

SENATOR VAN WAGNER: That is probably the argument they are getting from New York.

SENATOR PALLONE: --you are, legislatively -- through the bill that was mentioned, Congressman Howard's bill, I think-- Boston is not going to be able to dump at the 106 miles, so that means they are going to have to come up with an alternative, unless they are going to dump off of Boston, which I haven't heard they are going to do.

MR. DAGGETT: Well, I think they think they might.

SENATOR PALLONE: So, if they can be told, "You can't go out there, and you have to come up with an alternative," and New York and New Jersey can continue to dump out there, it doesn't make sense to me.

SENATOR VAN WAGNER: Are they building containment islands in these other states, or things of that nature? Is that what they're doing?

MR. DAGGETT: I don't know the details. I will get some answers on this and get back to you.

SENATOR PALLONE: I know you have to leave, but I would like to cover two other areas briefly. You mentioned that chemical biological radioactive wastes are prohibited now. We understand, however -- and this is where I want you to correct me if I am wrong -- that there are other ocean dumping sites out there -- acid water, cellar dirt.

MR. DAGGETT: Yes, and those are covered in the testimony I didn't go into.

SENATOR PALLONE: I know, and I know you don't have the time, but are those still active?

MR. DAGGETT: Yes.

SENATOR PALLONE: What are those again?

MR. DAGGETT: The acid waste site is basically down to two permits -- or one permit. (Mr. Daggett consults with Dr. Suszkowski at this point) I got it confused. We have an industrial waste site that has two dumpers still. The acid waste site only has one. Hydrochloric acid, I think, is primarily what has gone out, and it is pretty rapidly neutralized. Over the years, that volume has dropped significantly. It used to be a lot more, but people have found alternatives, frankly. They sell it, or do whatever, and slowly we are getting there on that.

SENATOR VAN WAGNER: It's wild how they do that, isn't it? You know, they just bam.

MR. DAGGETT: That's right, exactly. The industrial waste is down to two.

SENATOR PALLONE: The industrial waste-- What's that, the cellar dirt?

MR. DAGGETT: No, no, that's different. The industrial waste is-- Two duPont facilities are still dumping some industrial waste there. One is an alkaline waste, and then a ferrous acid.

SENATOR VAN WAGNER: So you'll soon be shutting those down.

MR. DAGGETT: Again, there are alternatives tests there, too. That has been reduced significantly. On all these, you know, I would love to be able to get this alternative developed. I don't know--

SENATOR PALLONE: Do these types of activities go on in California and in the Gulf and in Boston? I mean, do we have those sites?

MR. DAGGETT: Not off of Boston, I don't believe. California I am not so sure about. But, for example, from '73 to '85, the amount of industrial waste went from 3.6 million down to 99,000. So, it's a significant drop, and we're getting there.

SENATOR PALLONE: On each of these?

MR. DAGGETT: Yeah, on each of these we're getting there. The acid wastes have gone from 2.7 million down to 39,000. So, there has been a significant drop over the 12-year period.

SENATOR PALLONE: You don't perceive these, then, as a real problem -- these other sites?

MR. DAGGETT: No. The cellar dirt site has been reduced in terms of what is allowed to go out there. Now, basically, it is just dirt and cement and that kind of thing. On cellar dirt, it went from 974,000 down to zero, until late last year. We issued a permit to allow the Port Liberte site to put some cellar dirt out there.

SENATOR PALLONE: There was controversy there, because they were afraid of a certain amount of contamination.

MR. DAGGETT: Yeah. They passed all the tests, if you will, of what we put them through.

SENATOR PALLONE: Now, what about-- We read in the papers recently -- and I know we don't have time for this, and we almost decided we were going to have a separate hearing on the ocean incineration of toxic material-- I was very happy, of course, back in May, when EPA said they were not going to allow the tests with Chemical Waste Management. I read in the paper that apparently they have no intention of issuing the regulations until 1988. Is that still pretty much the case?

MR. DAGGETT: I wouldn't say it that way. In fact, the regulations, I think, may be issued later this year. I am not sure of the exact timetable yet. I know the agency is working on those regulations.

SENATOR PALLONE: You mean '87?

MR. DAGGETT: It may be this year -- '87 -- later, like in the fall or something.

SENATOR PALLONE: Well, I just hope the-- I know the Chemical Waste Management has brought suit. I don't know whether that is going to change anyone's mind. I hope it doesn't.

MR. DAGGETT: It doesn't change our mind, but we are under-- We have to-- I mean, the law is there saying it. We are sort of under-- We have to come up with the regulations to meet the law. That is essentially what we are being asked to do, and we have to do it. Now, as you know, I ended up supporting that test burn at the time.

SENATOR PALLONE: So did DEP.

MR. DAGGETT: Well, as you know, I did it because-- Again, back to the alternatives question. I'm getting killed in terms of having no place to take wastes that are generated on a daily basis, whether they be from Superfund sites or from

industrial sites of one kind or another. I saw it more as something that, while I didn't support it, if it wasn't able to be done properly, I supported the concept of doing some research on it, and that is what I saw that as being.

SENATOR PALLONE: But the decision was that there would be no tests until after the regulations were issued.

MR. DAGGETT: That's right.

SENATOR PALLONE: That hasn't changed?

MR. DAGGETT: That hasn't changed at all.

SENATOR PALLONE: Okay. I know we don't have time, so I'll stop.

MR. DAGGETT: We would be happy to come back.

SENATOR PALLONE: The last thing I want, going back to the Thousand Fathom Club again-- I know they had six or seven questions. It seems to me that what you are basically hinting at is that you don't have answers to these questions now, and that really the whole question of answering these is really going to be part of the five-year process.

MR. DAGGETT: Yes, but that doesn't mean we won't try to answer what we can now. In other words, I would welcome--

SENATOR PALLONE: I assume that some analysis was done in terms of the impact of a 106-mile site.

MR. DAGGETT: Yes. We have some current studies going on at the moment to see where some of the material goes, what happens to it, and so on.

SENATOR PALLONE: We would like to have that.

MR. DAGGETT: We will be happy to make public any of that material as we get it, but I want to emphasize that with the Thousand Fathoms, we would be happy to have our staffs get together to talk about the questions they have and, to the extent we can answer them now, I would be happy to try.

SENATOR PALLONE: I will go over them briefly, because you're here, and I would like to see--

DR. SUSZKOWSKI: If you want to give us the written questions, we will generate the answers we can.

SENATOR PALLONE: If you can answer any of them now, fine. If not, you can, you know, just follow it up. There are six questions, and the other three are hand-written.

MR. BELCARO (speaking from audience): Scratched.

DR. SUSZKOWSKI: We can give them a try. The first question is: "What predictive model results convinced EPA that materials will be diluted and disbursed and not transported to our canyon areas and onto the shelf?"

I think some of the reports that were shown on the slide that the National Oceanic and Atmospheric Administration had done, had convinced EPA that the net transport was basically to the southwest, following along the shelf. Further modeling done by EPA has confirmed that, although Chris has said that part of our monitoring strategy right now is to take a closer look at the current regime out there. We dropped current meters back in August -- late August, early September -- and we are going to retrieve them next month. So we will have a time series of events. We are going to continue that.

One of the questions we have is, as the sludge particles essentially rain out of the water column, where will they eventually go? The only way we can see of answering that is to have sediment traps placed for long periods of time. Predictions are that it takes months to years for some of the particles to eventually settle. They settle over such a wide area that we want to confirm that those predictions are, indeed, correct, and those types of traps will have to be put out.

Number two: "What portion of the dump site will be used for sludge disposal during our canyon fishing season?" I am not sure when the canyon fishing season is, but one of the things, too, that we should bring up is, the slide that was shown that had the large box for the 106-mile site is not the designated site. The designated sludge site is only the very easterly quadrant of the site, and does not extend to the entire area.

"What safeguards will be taken to ensure that materials are not being transported to, and accumulating on, our continental shelf?" Again, that will have to be done-- We don't think, through the predictive tools we have now, that you are going to get materials that rain and accumulate on the continental shelf. If you did, you wouldn't have a sandy continental shelf. Now you've got enough material that pours out of Delaware Bay and New York Harbor that you would probably have a thin blanket of material. You don't find, on the continental shelf, a settling basin essentially. However, we are going to take a look at particle settling along the shelf.

SENATOR VAN WAGNER: But you're not directly dumping the material that you said hasn't reached there-- That is not material that is transported out there and dumped, so it's a different situation, isn't it?

DR. SUSZKOWSKI: No, but-- Sewage sludge is, like, 95% to 99% water. The solid material -- maybe half of it -- is inorganic, essentially dirt and grit-type particles. The rest of it is organics, and by the time it hits the bottom it is going to be decomposed. That is not what is happening at the 12-mile site. That is one of the reasons we find it favorable to be dumping in deeper water; you get more of the use of the dispersion and the oxygen within the water column to get rid of the organics.

SENATOR VAN WAGNER: That is an answer to my earlier question -- it takes a longer time.

DR. SUSZKOWSKI: Yes. "What studies will be conducted on our pelagic species of game fish ensuring us they are not being affected by the materials being dumped at the '106'?"

We have been working with Nolea (phonetic spelling) to have them do some of the fisheries work for us. One of the areas of great concern to us -- however, it's an extremely expensive part of our monitoring plan -- is to look at bioaccumulation effects on species out there. It is at sort of

the end tiers of our monitoring plan. One of the problems you face with studies out there is that some of these fish-- You don't know how long they have resided at the dump site, nor the vicinity, and relating cause and effect is very, very difficult. However, we think probably the best way to do that is to coordinate site specific work with the fishery surveys that are done routinely by the National Marine Fishery Service, through their different programs -- northeast monitoring programs. So, they have been tied in to the monitoring plan we have now, and we hope it will be successful.

"What studies will be conducted on the staple diet of these game fish, the massive schools of bait, such as squid and butterfish, that also reside on our continental shelf?"

Again, we are concentrating on things likely at the dump site. The fish species we expect include squid, as well as some other things, including the possibility of endangered species. So, those are being incorporated into our monitoring plans.

"What surveillance of disposal activities will be undertaken this summer to ensure that permit conditions are met by dumpers?"

One of the things we are doing with the new permit applications and the transfer operations is-- The monitoring that will have to be done will have to look at compliance with the conditions of the permit, which include, you know, how well the dumping rates have been set, and are there any short-term effects. We fully intend to have the permittees do that part of the studies for us. Then we get into the longer range, far field studies, that EPA has been financing over the past few years, and will continue to finance.

There is one more hand-written note here, the 15-mile--

SENATOR PALLONE: Len, why don't you just tell us what that last one was, about the 15 miles? (Mr. Belcaro responds from audience, but is not near microphone. Transcriber is unable to hear his response.)

DR. SUSZKOWSKI: Fifteen thousand, five hundred? (inaudible response from Mr. Belcaro) Well, the release rates are all based on the bioassay data that applicants submit. It is called the Limiting Permissible Concentration, which is 100 times -- which is essentially your lowest bioassay level divided by 100. You have to meet that dilution within four hours of dumping. Your dumping rates are set that way. Some of the rates were somewhat lower than the 15,500 at the 12-mile site. Because in the early '80s, in concert with the Coast Guard, we found out that there were navigational hazards with having a number of barges dumping at the same time at the site, the standard discharge rate of 15,500 was established. We have continued that rate in our negotiations to phase out into the 106-mile site, but as we process permit applications -- which is going to start in a few weeks -- we will be setting new rates for the 106-mile site.

SENATOR PALLONE: Okay, thanks a lot. Anything further? (no response) I appreciate your coming, Chris -- both of you, actually.

MR. DAGGETT: Again, if you have additional hearings, or want to go into this in greater depth, let us know.

SENATOR PALLONE: All right. Thanks again.

SENATOR VAN WAGNER: I would love to see us, at some point, come together -- Federal, State, and local environmentalists, fishermen -- to form some type of ongoing strategic working group, to begin to mitigate, reduce, to set targets, to start to really set goals for ourselves. I think if we would do that, perhaps the next time we have to have hearings, we will be able to listen to what the result of what some of the action was. I just hope we pursue that course.

MR. DAGGETT: Okay, thanks.

SENATOR PALLONE: Thanks again.

We are going to keep going here. Wait a minute. Before we do any slide projections, we just have a few quick

speakers. What is the slide projection for, the Army Corps? (affirmative response from audience) All right. Well, they said they were willing to wait, so let's spend another 15 minutes with some of the other people who have been here all day.

First of all, the two sewage authorities. Are they still here? (response from audience) You're from?

UNIDENTIFIED SPEAKER FROM AUDIENCE: Northeast Monmouth.

SENATOR PALLONE: And you're from?

UNIDENTIFIED SPEAKER FROM AUDIENCE: Passaic Valley.

SENATOR PALLONE: Okay. Councilman Manning, did you want to go on first?

C O U N C I L M A N A N D R E W M A N N I N G: Just very briefly.

SENATOR PALLONE: Come on up. I know you have been waiting about three or four hours here.

COUNCILMAN MANNING: I will be very quick; the hour is late. Just by way of identification, my name is Andrew Manning. I am Council President for the Borough of Sea Bright, Monmouth County.

The observations I have made listening to the testimony today-- I am, by no means, an expert in the field of the environment, either by training or by experience. However, the Director who testified previously-- One thing struck me about the barges loaded with lumber going out to the burn site and the trailing, or surveillance vessel. I would suggest, perhaps, that it is similar to the "fox watching the chicken coop." I would suspect--

SENATOR PALLONE: I couldn't agree more.

COUNCILMAN MANNING: --that perhaps either DEP, EPA, the State Police, or the marine police conduct the surveillance, and not a private contractor hired by the contractor who is dumping the lumber to be burned.

That aside, obviously being a shore community, we are totally opposed to any ocean dumping, but like most people, including the experts, we don't have alternatives or solutions. I merely want to point out what we experience in Sea Bright which affects not only our environment -- which is most significant -- but also our economy. The ocean, apparently, over the past many years, has been treated as a garbage dump. The big thing we find is that in addition to logs, timbers, and plastic goods that proliferate our beaches, we have also -- in this past summer-- I have been a resident of Sea Bright for many years. I was a lifeguard on the beach front, and so forth. This past year, we have seen a great influx of jellyfish. Through a lot of reading, and speaking with knowledgeable people, we found that the influx of jellyfish, which has severely hampered our tourism and the people who wish to use the ocean, is a direct result of the use of plastics. The sea turtle, as we all know, is an endangered species, about to be extinct unless some action is taken. They feed on the plastics, assuming they are jellyfish, and they die. Their breeding places are severely limited, due to the construction along the oceanfront throughout the entire country.

But, both the petrochemical and biochemical industries-- It seems to me from prior testimony that people are concerned about the bankruptcy of various industries and the impact on the economy. Our concern is the bankruptcy of the environment. That bankruptcy is proceeding at a very fast rate.

In Sea Bright-- You talked about what we should do, and what action should be taken, and I can just tell you this: On January 21, I am going to introduce an ordinance in the Borough of Sea Bright -- a very small town along the coast -- prohibiting the use, sale, or distribution by any retail outlet of plastic bags. I would love to have the authority to say you can no longer use the plastic milk containers or the plastic

six-packs. I live on the river, and I was telling Cindy Zipf just before, that I was shocked this past fall to see a duck with a six-pack container around its neck. He couldn't fly. I -- together with some other people -- managed to trap it and remove it. I am sure this is going on all over.

So, I would just encourage you in your efforts. Take a real hard line on the plastic industry in this country. They are bankrupting our environment. We are going to start it in Sea Bright, hopefully, if the ordinance passes, which I suspect it will. When you go to Foodtown there, in the next several months, you will get an old paper bag. You will be able to put it in your basket under your sink, and it will go away with time, unlike plastic.

Thank you very much.

SENATOR PALLONE: Thanks a lot, Andy. I appreciate your coming.

Will you please identify yourself for us?

S H E L D O N L I P K E: Yes. My name is Sheldon Lipke. I am Superintendent of Plant Operations for the Passaic Valley Sewerage Commissioners.

SENATOR PALLONE: You are here replacing Mr. Perrapato?

MR. LIPKE: Yes, Mr. Perrapato, who is the Executive Director of Passaic Valley. He expresses his regrets for not being able to stay.

SENATOR PALLONE: Okay. Thank you for coming.

MR. LIPKE: You're quite welcome. We have a short presentation. First, I would like to tell you that Mr. Perrapato has a commitment -- a personal and professional commitment -- to a clean ocean, because he is a resident of the Admiralty in Monmouth Beach.

SENATOR PALLONE: Oh, okay, he's a constituent then. We'll have to give him very serious consideration.

MR. LIPKE: The Passaic Valley Sewerage Commissioners operate a 330-million-gallon-per-day secondary treatment plant,

located in Newark. We serve approximately 1.5 million people living in Essex, Hudson, Bergen, and Passaic Counties, as well as over 300 major industries. The Passaic Valley plant was completed in 1986, at a cost of over \$550 million.

In 1985, we were informed by EPA that the 12-mile sludge dump site would be closed, and that we would have to move to the new 106-mile site. Although we do not believe there is scientific evidence that the 12-mile site should be closed, we immediately began working with EPA to implement a practical plan to move to the new site.

The trip to the 12-mile site takes approximately 12 hours, while the trip to the 106 takes about 40 hours. The increase in transit time means that more vessels are required to carry the same amount of sludge. Additional vessel capacity had to be built to accommodate not only the sludges from New Jersey, but also from New York City and Westchester and Nassau Counties.

In May, 1986, we began sending 25% of our sludge to the 106-mile site, and on January 1, 1988, 100% of our sludge will be disposed of at the new site. At that time, the 12-mile site will be permanently closed.

Before disposal, our sludge is treated using the Zimpro (phonetic spelling) Company wet air oxidation process. The sludge is pressure cooked at 410 degrees Fahrenheit and at a pressure of 600 pounds per square inch. This system completely sterilizes the sludge to kill all of the pathogenic bacteria and other harmful organisms. The sludge is settled in two sets of tanks before barging to sea.

As with all users of the ocean, we are concerned with floatables washing up on our beaches. We believe that the presence of Tampon applicators on the beaches where children play is a disgrace, and should be cleaned up, but we disagree in the method EPA has taken thus far to address the problem. In mid-December, we received an order from EPA to cease the

dumping of persistent floatable materials, such as plastics. In our plant, we grind and shred all floating materials and sludge. Before barging, the sludge is settled in 30 foot deep tanks, and the sludge is withdrawn from the bottom of these tanks. Any floatable materials are returned for further treatment. This step ensures that no floating material is sent to sea. All of our floatables are collected and sent to a landfill, so none of the materials that have been washing up on the shore are attributable to Passaic Valley.

SENATOR PALLONE: Passaic Valley takes in what counties or municipalities, again?

MR. LIPKE: Essex, Bergen, Hudson, and Passaic Counties.

SENATOR PALLONE: The entire counties?

MR. LIPKE: That is correct. We are, probably, the fourth largest treatment plant in the United States. We treat about 25% of the sewage that emanates in the State of New Jersey. We include Newark, all the way up north to Paterson, and we have new members who will come on-line in about a year and a half. We will be taking care of Jersey City and Bayonne. So, we have about 30 member municipalities.

What are the real sources of this pollution? Does it come from sewage sludge, or does it come from combined sewer overflows, or the overloaded primary treatment plants right along the shore? These are the kinds of questions that can only be answered by an in-depth study, we believe, by DEP and EPA. As a local sewerage agency, we cannot address the complex problem alone. As has happened all too often, we are the most visible target and, therefore, are made the scapegoat.

I am going to digress for a second.

SENATOR PALLONE: Sure.

MR. LIPKE: In these types of complex issues, you have an operating authority, such as ours, which is responsible for taking whatever action is necessary, and then you have an

oversight agency regulatory commission. The regulatory agency takes a piece of paper out, puts it in the typewriter, and says, "You shall not do this." It sends it in the mail, and that's it. They come here, they sit in front of you, and they say, "We told them to stop," and we have to do it. It is a completely different type of responsibility that we--

SENATOR PALLONE: Kind of like the relationship between the State and the municipalities, too, in a sense. I am sympathetic.

MR. LIPKE: They're great letter writers. We are, and always have been, a responsible agency. We will gladly cooperate with EPA and DEP in implementing our part of the overall solution to these problems. But, once again, we are dismayed that the regulatory agencies have acted in a manner that protects themselves, instead of the environment.

PVSC is not an ocean dumper by choice, but by necessity. A 1978 study costing over a million dollars was undertaken to find alternatives to ocean disposal. After looking at composting, land application, co-disposal with solid waste, and other technologies, incineration was chosen as our only viable option. We applied for the required air pollution permits from EPA and DEP, while at the same time constructing a \$16 million sludge dewatering facility needed to dry the sludge prior to incineration. DEP and EPA have never approved our permits.

SENATOR PALLONE: You're making the same argument-- Were you here earlier when Rahway Valley spoke? It is the same thing. You spent a significant amount of money looking for land-based alternatives, and were basically told, "You can't do it."

MR. LIPKE: No, we weren't told anything. We have never received a reply from DEP.

SENATOR PALLONE: How much money was spent on this dewatering plant?

MR. LIPKE: Sixteen million dollars.

SENATOR PALLONE: And it has never been used?

MR. LIPKE: Once, for a trial, and it's costing us -- it must be \$100,000 a year to maintain it now in a mothball condition, ready to go. DEP and EPA have never approved that permit, even though we proposed state--of-the-art air pollution control equipment. As a result, we have a \$16 million white elephant, and no viable land-based alternative.

SENATOR PALLONE: Why do you think-- I mean, there is no doubt in your mind, I suppose, that the State DEP is encouraging ocean disposal, as opposed to these land-based alternatives, at this stage.

MR. LIPKE: I wouldn't go that far. What I would say is, the local agencies -- I can only speak for our Commission--

SENATOR PALLONE: Yes, but yours is a big one, so go ahead.

MR. LIPKE: That's right. We definitely would like to get out of the ocean, and construct a land-based alternative, which would probably be some sort of furnace or incinerator, for a number of reasons. Many people have said that economically it is cheaper to ocean dispose. In our particular case, it is only marginally so. When you construct an incinerator, you can put a large boiler on the exhaust and recover the heat. You can generate electricity, and you can heat all of the facility. In our particular case, even if we had to construct the facility on our own -- and the cost is about \$80 million to do that -- we believe we would have a break-even situation.

SENATOR PALLONE: So, it really wouldn't be significantly more expensive.

MR. LIPKE: That is correct.

SENATOR PALLONE: What is the reason then why you-- Maybe you don't know, but what do you think the reason is why this is being discouraged by the State?

MR. LIPKE: Our problem is that our sludge has too many heavy metals. We serve a heavily industrialized district -- northern New Jersey. Fifty percent of our incoming pollutants come from industry. We have a very, very active industrial pre-treatment program. The Federal government promulgated categorical standards for industries; that is, each type of industry was given a target for removal of metals or pollutants of other sorts.

SENATOR PALLONE: Is it true that in other states, the type of sludge you are generating-- Would it be permissible to incinerate it?

MR. LIPKE: Let me go a little further.

SENATOR PALLONE: Okay.

MR. LIPKE: That only addresses part of the problem. Not every industry is covered by a categorical standard, and even those industries that are covered by a categorical standard-- What the EPA did was conduct a lot of research, and they said, "What levels can an industry come down to, using the best available practical technology?" We have some huge industries, and our industries, even after treatment, still have substantial metals mounting up.

Right now, there are two parts to an industrial pre-treatment program. One is issuing the regulations; the other is having the companies implement the regulations by building facilities. That takes a long time. We suspect that by this September, the bulk of our industries will be in compliance. Some of the larger ones-- It is very difficult. We have many industries, and they have a lot of different process streams. We have had very good luck. We don't really have recalcitrant industries. It takes a long time to get these things on-line and operating. We have seen the metal. Some of our metals have come down 30% to 50%, but in the work we have done with DEP, when we applied for air pollution permits-- This work was done prior to the construction of our

treatment plant. Our plant only came on-line in 1981, and we had no sludge prior to 1981. We did a theoretical study, and this was before many of the categorical standards were issued. We assumed that we would reduce our level of metals down to only 10% of what we had before. Even with those levels, we could not pass the DEP and EPA air standards.

Now, you asked a question about other areas. As far as I know, we may be one of the first sewerage agencies that even talked about metals in the emissions. Most of the other agencies-- There is a Federal standard for particulates. We can easily meet that, and that is what most of the other incinerators are doing. I think this is a subject that the rest of the country will be dealing with.

SENATOR PALLONE: I guess what I am trying to get at is, unlike the person from Rahway, who basically felt that their sludge was of a caliber, or whatever, that pre-treatment wasn't really a problem any more-- Are you gradually approaching the point where the quality of the sludge, or whatever, because of pre-treatment, would be acceptable for incineration, but right now it isn't -- it really isn't?

MR. LIPKE: The levels of the metals are coming down. Okay? There are three sources of metals in sewage sludge. The first one is the industries that are regulated by the categorical standards. We will know where we come down to. If this is where we started, we are going to come down to this level -- (demonstrating) -- after those are all done. There are other industries that are not regulated. We can adopt local levels, providing we know what sort of end point we are looking for.

There is a third group, which is small companies, commercial types of establishments, and people, who are contributors to the problem. There are vitamins, minerals. They always talk about minerals in your food. Well, when you eat, they come to us. If you add up a million and a half people, it comes to a significant amount.

SENATOR PALLONE: What I'm saying, then, is, as far as you are concerned, pre-treatment is still a problem before you would be able to get into some of these ocean disposal alternatives.

MR. LIPKE: The answer is yes, not so much implementing something, because we will implement whatever is necessary, but it will take time until we actually know where we are and where we're going.

SENATOR PALLONE: How long are we talking about? In other words, we know we have five years for the 106-mile site. Are you looking towards -- to any extent now -- ultimately getting out of ocean disposal?

MR. LIPKE: We are looking at alternatives. Let me go a little bit further on that.

SENATOR PALLONE: Okay.

MR. LIPKE: We'll reach our first step this September. At that time, we'll know where we are, but we still won't know how far we have to go. When you burn any type of material, the material goes up the stack, it disburser, and you are allowed a certain level on ambient air quality standards. You have to backtrack to find out what you are allowed out of the stack, and then when you know what can come out of the stack, you have to find out exactly what you can allow in the sludge, and then you go back to the industries, to say, "Cut down." All right?

I am just going to go through some of the alternatives we have looked at.

SENATOR PALLONE: Yeah, go ahead.

MR. LIPKE: Maybe I can give you some idea of where we are right now. Because of our problem, we have been looking at other alternatives -- other types of technologies. I know Senator Van Wagner talked about what are we doing. Well, this will give you some idea.

We are committed to removing our sludge from the ocean when a practical method is invented. We have met with various vendors interested in solving our problem. Some of their solutions were to apply the sludge in Florida; incinerate the sludge alone; incinerate the sludge with coal; or incinerate the sludge with tires. Some vendors propose high temperatures, others low temperature processes. Some companies want to incinerate our sludge with air, others with oxygen. We even had a proposal to solidify the sludge and use it for concrete aggregate. All these processes have one flaw: They don't work, not a one of them. I hate to say this, but we call them "The Nut of the Month Club."

We met with over a dozen of these various people. Everybody comes in, and says, "We've got it. You go with us. You just pay us a fee per ton, and we'll take care of it." We usually meet with them for two or three months, and then we never hear from them again. We had a proposal to take all of our sludge down to Florida and put it on crop land. We had a proposal to mix it and turn it into some sort of gas, and burn the gas. That was a great proposal, until it came to the proponent-- I think we talked about going on a trip or something. Anyway, he had to lay out about \$5000 for an \$80 million project, and he couldn't come up with the \$5000. And this is going on and on.

Right now, we have two active prospects. We don't think either one of them is going to go anywhere. Somebody is interested right now. He is trying to set up a meeting with DEP and EPA -- the air permits people -- and we will attend to try to work on some solution to the problem.

SENATOR PALLONE: But the dewatering you mentioned, which you invested in. That was oriented towards drying the sludge, and then either what -- landfilling it or incineration? Is that being pursued at all any more?

MR. LIPKE: The incineration?

SENATOR PALLONE: Yes.

MR. LIPKE: Yes, that is what we have been pursuing over the last three or four years.

SENATOR PALLONE: Okay.

MR. LIPKE: Very actively.

SENATOR PALLONE: But you don't perceive it as coming to fruition for several years?

MR. LIPKE: I must say, everyone else sort of waltzed around the subject. If we got the okay today, we could not be in operation for at least five years. Our plant took about 17 years to construct and put into operation -- the rest of the plant. We're looking at at least five years.

We will continue our efforts to find a satisfactory environmentally sound land-based alternative to sludge disposal. Until that time, we are continuing to dispose of our sludge at the new dump site in what we think is an environmentally acceptable manner.

One of the things we have ongoing right now -- and this will give you some idea of where the regulatory agencies are-- We believe, from our discussions, that we need a pilot type of sludge incineration -- a small-scale burning of our sludge, with analytical work to determine exactly what the emissions are. We received estimates of about \$300,000 to perform this pilot burn, and it could be done in a laboratory. We approached EPA, who allegedly is so interested in getting out of the ocean, and we said basically--

SENATOR PALLONE: I don't know that they said that today, but that's okay.

MR. LIPKE: Well, they said it to us. We had some money available from a previous grant that we didn't spend on this land-based alternative. We said, "Give us the \$300,000, or whatever part you can. If this proves to be successful, we will go out and spend that \$80 million. All we're asking for

is the seed money." We got a reply, which basically said, "Well, we can't give you the money. You have to see DEP. We'll get back to you," etc., etc.

SENATOR PALLONE: So it's not really being encouraged at this point?

MR. LIPKE: I don't think so. We are willing to make that huge investment.

SENATOR PALLONE: I don't want to cut you off, but obviously the hour is late. I wanted basically for you to outline what the situation is, because I would like to get some answers from EPA and DEP about why they are not encouraging these alternatives. Now, it may be that there are very good reasons, but we weren't able to get them today from either DEP or EPA, other than the fact that New Jersey is a densely populated State, which is, you know, kind of a broad generalization. I would like to have something more specific than that. But, the fact that you're here really pinpoints the problem, because you are the largest authority in the State. Thanks a lot.

MR. LIPKE: I hope you have more success than we've had.

SENATOR PALLONE: All right. We appreciate it. Take care.

MR. LIPKE: Sure, thank you.

SENATOR PALLONE: Northeast Monmouth, are you going to be brief?

M I C H A E L L Y O N S: Yes, I will be very brief.

SENATOR PALLONE: Are you going to tell us what you have in mind with your new incinerator, or whatever it's called?

MR. LYONS: Very briefly. My name is Mike Lyons. I am the Executive Director--

SENATOR PALLONE: I want to say that you have been very cooperative with me. I don't know with the Committee so much, but with me in the past on various things, and I appreciate it.

MR. LYONS: Well, the Northeast Monmouth County Regional Sewer Authority is very concerned about the environment. We have acted, over the past years, to do our part to keep the water in the ocean clean. We recently completed a reconstruction of our (indiscernible) line, where we spent \$6 million. That was completed just prior to Thanksgiving this year, and is currently on-line. That was funded by the Authority members and customers.

Northeast Monmouth was one of the authorities which was designed back in 1969 to ocean dispose of sludge. That was the initial design. We were a brand-new plant back then. We put in a very expensive bulkhead; we put in holding tanks; and we are specifically set up to barge sludge out into the ocean. That was acceptable at that time, and the design was approved by DEP and EPA.

When we had to get out of the ocean, we built the sludge dewater facility. The cost for that facility was three and a half million dollars. We were out of the ocean around -- I wasn't here at the time -- but around 1983, I believe. We stopped ocean dumping and went to a landfill, which was, again, the accepted alternative. We had to dry sludge above 20% solid and haul it to the Ocean County Landfill.

On March 15, 1985, we were forced out of the landfill. Now we had a \$3.5 million sludge dewatering facility which was of no use to us, because there were no land-based alternatives which would take dried sludge. There are many in the State which take liquid sludge, but none that take dried sludge. Because of the volume of sludge that Northeast Monmouth produces, a land application was just out of the question because of the acreage involved.

We produce approximately 60,000 gallons a day of sludge at 5% solid. Currently what we are doing with that sludge is trucking it in 10 to 12 tractor-trailers all over the State. We have contracts with Somerset Raritan Valley Sewer

Authority, Stony Brook Regional Sewer Authority, the Cherry Hill Sewer Authority, Wayne Sewer Authority, and the Parsippany/Troy Hills Sewer Authority. All of those places have agreed to take our sludge when it is available to them, and when they are available to us.

Back in March, 1985, our sludge bill for the year, with the land-based alternative going to the landfill, was approximately \$265,000 a year. Our sludge bill for 1986 was \$1.7 million. This represented 40% of our operating budget. We were forced to increase rates in October, 1985, from \$140 a year to \$200 a year per unit in our service area. Fifty-nine dollars of that \$60 is directly attributable to the cost of a land-based alternative for sludge.

We are not looking to get back into the ocean. We currently have an acceptable method of disposal, which is trucking it all over the State. What we are doing, is looking at a land-based alternative which we can control. Right now, we are at the mercy of the other incinerators, who have, on occasion, shut us out because of their own problems, either because they were not in operation or were rebuilding. This leaves us with the possibility of having the trucks ride as far as Connecticut or deep into Pennsylvania to get rid of it.

In looking at our own problem, we investigated several alternatives. As a matter of fact, there were 22 alternatives which we investigated. We looked at them over a period of about three years, and narrowed it down to three which we felt were acceptable for our community -- or our area. Over the past two years we looked at these intentionally, and came up with one alternative which is acceptable, which involves the melting of sludge in an incinerator or furnace.

I would just like to make the point that the points that were made earlier, which have to be addressed by the Legislature-- All of the things we do to clean up the water cost money. I know a lot of people say that money should not

be the issue in environmental problems and, in a sense, I agree with them. But the public has to be made aware, through education, that there is a cost involved, and they are the ones who are ultimately going to have to pay the cost, whether it is to clean up an industry or to clean up their own pollution, as in a municipal sewer authority.

With regard to industrial waste, there is a greater concentration now of industrial waste than there ever was before. Before, it was diluted with the municipal sludges. Now that you have the industrial pre-treatment standards, all those industrial wastes are now being concentrated, and it is very difficult to treat them. The biggest problem I see facing New Jersey is because, as you mentioned earlier, it is a heavily populated State, and where do you site these facilities? I haven't seen a facility sited recently that is going to be built, and that worries me. We have a problem that we are not going to be able to ship out-of-state; we are not going to be able to ship to South Dakota, where they have the available land. We are going to have to take care of it here, and the Legislature, or local politicians -- county politicians -- are going to have to take a hard stand and decide they are going to take care of their own problems.

We at Northeast Monmouth are dedicated to our customers who are concerned about the environment. I think we have taken that into account in the process we have selected. We hope to be able to put it on-line. As Mr. Lipke mentioned, it takes a long time to do these things. We have studied the process for a long period of time. If we start tomorrow, it will take three years to get it into operation. I see some roadblocks already for us that will probably extend that time. So, even when you want to be responsible and take care of your own problem-- By the way, we are doing this with our own money. We are not looking for grants, although they would be greatly appreciated, if they were available. It was a travesty

that Mr. Reagan pocket vetoed the Clean Water Act. I was happy to see that it was the first bill on the agenda for the new session. I hope it is approved. I can only say that there is not enough money there to solve the problems. I believe it is an \$18 billion package, and what we need is about \$200 billion to solve some of the problems we have. As I said, the biggest problem is going to be siting. If you are looking for things to address, I think that is one of the key areas you should look at.

Also, just as a slight aside, we had a meeting recently in Monmouth Beach -- and it was impromptu -- on the fact that we were planning on putting in a sludge melting furnace. Many of the residents of Monmouth Beach who were there-- I would like to tell you what their suggestions were to do with the sludge. Many of them advocated burning at sea. One advocated an incinerator on Sandy Hook. There were quite a few very innovative ideas. The main theme that came out of it was, you can do whatever you want, but don't do it here.

SENATOR PALLONE: Yeah, don't do it in my back yard.

MR. LYONS: That is the problem I see, not just for us, but for everybody else.

SENATOR PALLONE: In general, yeah.

MR. LYONS: I would like to thank you for this opportunity to speak. If I can be of any help to your Committee in the future, I would be glad to help.

SENATOR PALLONE: All right. I appreciate it. Thanks again.

I just want to make an announcement. Who is still here who wants to speak? Cindy; I know I have Mr. Zammit; and I know I have the Coast Guard. Is there anyone else? (affirmative response from audience) You want to speak also, Diane? All right.

I just have to announce -- and don't get upset -- we are going to have to take just a five-minute break. As soon as we come back in five minutes, we are going to get through the other four people. Okay? Just five minutes.

(RECESS)

AFTER RECESS:

SENATOR PALLONE: Diane Quinton?

D I A N E Q U I N T O N: I only stayed to make a very short, two-minute statement.

SENATOR PALLONE: Okay.

MS. QUINTON: My name is Diane Quinton, and I am representing Playtex International. Playtex would like to commend you for your legislation to study the whole issue of ocean pollution, as well as the legislation that was introduced in the Assembly.

Now, there are differences in the two versions. We especially like the idea that your legislation provides for three years for the study to be done, because with all of the problems we have heard talked about today, I don't think anyone can deny that the period of time allotted in the Assembly version of the bill is insufficient to allow for a thorough study. I believe it is a year.

SENATOR PALLONE: Well, now you are talking about two different things though, because the Assembly bill--

MS. QUINTON: Talks about all debris.

SENATOR PALLONE: --prohibits the Tampon applicators--

MS. QUINTON: I'm talking about the study bills.

SENATOR PALLONE: Oh.

MS. QUINTON: I am not talking about--

SENATOR PALLONE: You are not talking about the actual prohibition bills?

MS. QUINTON: We are on record, as you are well aware--

SENATOR PALLONE: Oh, okay, I'm sorry.

MS. QUINTON: --of prohibiting the banning of-- I don't know how any reasonable person could think that banning any kind of product is going to be a solution to the problems of--

SENATOR PALLONE: Okay, so you are only talking about the two study bills.

MS. QUINTON: I am talking about the two study bills. We really want to be on record. Senate 2828 is your bill. I think A-3517 is the Assembly version. The difference in the two bills is that yours focuses on floatables, and the Assembly version focuses on all debris. Your bill allows a three-year period for the study; the Assembly bill only one year. A combination of the two, a study of where all the debris is coming from, a study done over a three-year period, we think would be a very reasonable approach. If there is anything we can do to help you move the legislation through the process, we would be happy to do that.

SENATOR PALLONE: Okay. I appreciate it. Thanks a lot.

MS. QUINTON: Okay, that's really it.

SENATOR PALLONE: You could have done that this morning, but you wanted to hear the other testimony.

MS. QUINTON: Then I would not have heard everybody else. Thank you.

SENATOR PALLONE: Thanks again, Diane. Cindy, you're next.

C I N D Y Z I P F: I'm next?

SENATOR PALLONE: If you want to be.

MS. ZIPF: Sure. I am going to be brief as well -- 10 minutes, I timed myself.

First of all, I would like to commend the Committee for focusing these hearings on coastal pollution. The results

of the past hearings have resulted in some very good legislation, which begins to target the specific areas of ocean pollution.

SENATOR PALLONE: You better identify yourself for the record.

MS. ZIPF: Oh, for the record? I am Cindy Zipf, Clean Ocean Action.

Tonight, Clean Ocean Action is here to discuss ocean dumping. Ocean dumping is an issue on which there is a great deal to talk about. New Jersey has seven dump sites, more than anywhere else in the country. We are the ocean dumping capital of the world. Clean Ocean Action also recognizes that under the Marine Protection Resource and Sanctuaries Act, EPA is designated with the responsibility of regulating ocean dumping. However, the State of New Jersey has direct control over the quality of the material that is ocean dumped.

We are not here today to point any fingers, but to identify specific steps New Jersey can take to solve the problems of ocean pollution. Ocean dumping continues, of course, because it is a cheaper alternative -- although we have heard some contradictory things today -- than some of the other dumping that goes on. Sewer sludge remains to be seen. It is a very complex issue, obviously, as you heard today.

However, New Jersey stands the most to lose from continued contamination of our major tourism attraction, which is the Jersey shore. New Jersey should be doing its utmost to control pollution, but as we saw today, New Jersey is not doing its utmost. The New Jersey DEP is not doing -- even beginning to control the quality of the sludge that is being ocean dumped.

It was an interesting question when Mr. Daggett was asked, "Why are New Jersey and New York dumping, when nobody else dumps?" He doesn't seem to know the answer to that question. That is a specific question that should be asked when talking about the need for ocean disposal. He doesn't have--

SENATOR PALLONE: His only answer was, "New Jersey is a densely populated State," but so is Rhode Island.

MS. ZIPF: That's right. New Jersey dumps approximately 50% of all the sludge it generates. Of all the sludge that New Jersey generates, 50% is ocean dumped. That 50% is too toxic for land-based alternatives, and results also in contaminated discharge entering into nearby rivers.

I have an excerpt here from something, which I would like to read to you, from DEP to EPA, which recognizes the problem of ocean pollution: "The present system of ocean dumping should not be perpetuated. If EPA decides to shift the dump site from some or all of the sewage sludge, that decision should be clearly an interim step. Avoid any 'out-of-sight, out of mine' reaction. The deadline of December 31, 1981 for implementing the acceptable land-based alternatives should not be extended. The long-term solution must take the form of professionally tested, environmentally safe, and economically sound sludge management. The present system of ocean disposal is but one example of poor management of sewage sludge. In some cases, the best management of sewage sludge will probably require pre-treatment of industrial effluence before it enters municipal sewage systems." This was dated January of 1977. It was written by our New Jersey DEP Commissioner at that time, David Bardin, to EPA. That was 10 years ago, and there was a strong commitment from the State of New Jersey that that 1981 deadline was going to be the final deadline.

We have today, of course, the 1986 version of DEP's plan, which states somewhat of a different opinion, and I quote from that document--

SENATOR PALLONE: Is this the Sewage Sludge Management Plan?

MS. ZIPF: Yes, this is the draft Sewage Sludge Management Plan. "The Department seeks practical solutions to all aspects of ocean dumping issues. Decision-making must take

into account both the environmental and economic consequences of management in the ocean, on the land, and in the air. The State proposes a comprehensive State and Federal environmental analysis of the sewage sludge question. New Jersey, New York, and EPA must weigh all the facts before a final decision on ocean disposal versus a land-based alternative is made," which is a very different attitude from DEP. Also, as you have already stated today, they are planning on ocean disposal beyond the 1991 deadline, which can be extended, from Mr. Daggett's remarks today. It is a deadline for their permits, but they can always request an extension.

SENATOR PALLONE: He seemed to indicate that EPA has the regulatory power to extend it on its own, without anything else.

MS. ZIPF: Right. They do have that ability. In fact, they would need congressional law to make them mandate the closing of a dump site. But yet there was a congressional law that mandated a deadline in 1981. So, it's questionable whether or not, without alternatives -- land-based alternatives available -- whether or not any stopping of ocean dumping will occur. The way we are going to stop ocean dumping is through pre-treatment, source reduction, and recycling, and getting that sludge clean. That is the responsibility of the State. That is where we need the leadership from the State Legislature, to get after DEP to make that happen.

SENATOR PALLONE: Cindy, I even got the impression that EPA might be interested in fighting the phase-out of the Mud Dump site to 20 miles.

MS. ZIPF: Right.

SENATOR PALLONE: They seemed to indicate, "Well, that law really doesn't have much legislative background -- or backbone -- to it, and maybe we can get around it."

MS. ZIPF: Right, and here is the legislatively designated deadline that EPA is not happy with. I also have to

say that the environmental groups may not be happy with that kind of a designation either. Twenty miles might not be the ideal location. In fact, the Ocean Dumping Act states that sites must be considered off the continental shelf, where feasible. Certainly, 20 miles offshore is not off the continental shelf.

SENATOR PALLONE: Yeah, but you're talking in terms of putting it further out. My impression was that he might suggest even keeping the six-mile site.

MS. ZIPF: Right. Well, there are questions about that, but I specifically go into other dump sites. Let me just recommend to you, and to the Senate Committee, that you move swiftly with some legislation to enhance dramatically, yesterday, the pre-treatment program in DEP, both with funding and with mandating that the sludge dumped in the ocean today be clean enough for land application by 1991.

SENATOR PALLONE: Let me just go through this again. We just had a note here that said the Pre-treatment Task Force, which was started in August, in effect, I guess has been abandoned.

MR. CANTOR (Committee Aide): That was within DEP.

SENATOR PALLONE: Within DEP, because I guess somebody else-- The person who was in charge has moved on to something else, and there really isn't much happening.

MS. ZIPF: There is not.

SENATOR PALLONE: You are suggesting legislatively that we do what?

MS. ZIPF: That you mandate DEP to enhance, dramatically, their pre-treatment program, and that the pre-treatment program require that the end product -- the sludge resulting from these POTWs -- these sewage treatment plants -- be clean enough for land-based application by 1991..

SENATOR PALLONE: Which is the five-year deadline.

MS. ZIPF: Which is the five-year deadline.

SENATOR PALLONE: Legislation mandating to enhance dramatically the pre-treatment program, and to end--

MS. ZIPF: To require that the sludge presently dumped in the ocean be clean enough to be land-applied by 1991. In other words, if it is too toxic to dump in the ocean-- If it is too toxic to put on land, then it is too toxic to dump in the ocean. That is the only way we are going to see an end to that 106-mile dump site. According to all the sewerage authorities, as well, you know, apparently ocean disposal may not be the best. They have already spent millions of dollars for other alternatives. The reason they can't implement them is because of the toxics. Now, if we get the toxics out of the sludge-- We need a very aggressive effort on the part of DEP to do that. We have some very major, highly industrialized areas, and right now, as you heard today, they are only controlling categorical users. That doesn't include the thousands and thousands of small industries that are using the septic systems or sewage treatment plants to get rid of their waste.

SENATOR PALLONE: We really didn't get any outline of this pre-treatment program from DEP.

MS. ZIPF: There is none.

SENATOR PALLONE: There is none?

MS. ZIPF: There are some for categorical users, but there are none for a long-term program. This was referred to in 1977. It is 10 years ago, almost to the day, that that was seen as the solution, and we are still working at that today; talking about this vague pre-treatment program that is going to solve the problem, but not really getting down to the nitty-gritty, and saying what that program is. There should be dates and outlines and mandates for the implementation of a program to clean up the end product, not to look at specific industries necessarily. I also think DEP must work in conjunction with the POTWs. Right now, they consider

themselves adversaries, which is not a productive situation to be in. They have to work together. The POTW knows what kinds of industries are in its community, what kinds of areas it can focus in, and DEP has the regulatory know-how, or non-know-how, depending on how you look at it, to be able to implement the criteria of the programs. It has to be a combined effort, and it has to be much more aggressive. Otherwise, we are going to continue to see ocean dumping always.

SENATOR PALLONE: If there is anything legislators like, it is people who testify and suggest legislation.
(laughter)

MS. ZIPF: Just briefly, I would like to touch on the other dump sites. The dredge material dump site-- The material is responsible for a large amount of the contaminants we are seeing out in the open ocean. Today, in our society, we have over 120, I believe, priority pollutants. There may even be more than 120. These priority pollutants have been identified as major concerns for public health. Yet, for materials that are dumped in the ocean, they only look at four: cadmium, mercury, PCBs, petroleum hydrocarbons -- sometimes cadmium -- which are the only required contaminants they look for. This criteria is obviously too lax.

Now, New Jersey requires -- this is where New Jersey fits in again, Senator Pallone -- that a water quality certificate be granted for the dredging in its waters. Here New Jersey can make an effort to stop contaminated dredge material from being dredged and from being dumped in the ocean. This material should be tested for all of the priority pollutants, at the cost of the applicant, which would again extend the cost of ocean dumping, and make it more expensive to ocean dump, so that alternatives would look better; and also look more extensively at the kinds of contaminants in this dredge material.

SENATOR PALLONE: So, in other words, this certificate -- New Jersey water quality certificate -- could be used, in your opinion, as a way of being more stringent--

MS. ZIPF: Yes, absolutely.

SENATOR PALLONE: --in terms of dredging permits.

MS. ZIPF: Right.

SENATOR PALLONE: Dredging permits only?

MS. ZIPF: Dredging permits, right.

SENATOR PALLONE: The ocean disposal of dredging materials.

MS. ZIPF: Ocean disposal of dredging materials.

SENATOR PALLONE: And, really, what happens now? Every time EPA certifies it, they just say it's fine, kind of like what we ran into with the ocean incineration.

MS. ZIPF: Right, right. I don't know of any instance, but perhaps they may be able to tell you of an instance, where a water quality certificate was not granted. There was a question of a company that wanted to dump dioxin-contaminated materials, but from what I understand the certificate was granted, and, again, this material contained dioxin.

SENATOR PALLONE: This is just for the dredge materials, though?

MS. ZIPF: From what I understand, yes. They need this water quality certificate. It may be needed for wetland filling.

SENATOR PALLONE: And it doesn't matter that it is six miles out?

MS. ZIPF: No, because the dredging is taking place in New Jersey's waters. Therefore, they need a water quality certificate.

SENATOR PALLONE: Okay. So it would only be for the dredging on the New Jersey side?

MS. ZIPF: Right.

SENATOR PALLONE: Not for the New York side.

MS. ZIPF: Not the dredging on the New York side, right. But I have to point out that New Jersey has most of the contaminated areas located within its shorelines, since it is so industrialized. New York's dredge material probably should not be dumped at the six-mile site, but rather the 12-mile dump site, since it contains a lot of fecal coliforms. Probably a majority of it is sewage. That is another thing that perhaps -- as I mentioned -- it could be tested for -- fecal coliforms in nutrient levels within that dredge material, because we may be dumping high levels of fecal coliforms and/or nutrients into the six-mile dump site.

Also, pre-treatment, as we discussed, and source reduction and recycling will also help. As we limit the kinds of contaminants being discharged into our local waterways, we will be limiting the kinds of contaminants that get into these dredge materials or into these sediments, which would, over time, keep the sediments clean -- or get the sediments cleaner -- than they presently are. So, pre-treatment will have a secondary benefit as well.

The acid waste dump site 15 miles off Long Branch-- That company, as Mr. Daggett said-- There is only one dumper left there, and that is Allied Corporation, in the chemical sector. It is a New Jersey-based company in Elizabeth. So, here again New Jersey is dumping on New Jersey, and causing New Jersey problems, and here again the State of New Jersey can take some action.

SENATOR PALLONE: Is that something the State has to approve -- the dumping at the acid dump site?

MS. ZIPF: No, they don't have to approve it, but I feel New Jersey can put pressure on this company to get out of the ocean.

SENATOR PALLONE: Clearly you feel that acid waste is damaging. I mean, I don't know offhand. I have never heard it mentioned.

MS. ZIPF: They say that dumping acid is not necessarily bad, that it basically neutralizes on contact within several seconds, or within a few seconds of being dumped. But anything directly underneath that barge at that time is fried. However, there are alternatives for this acid. It can be recycled and sold as recycled acid. The current ocean dumping permit under which Allied Corporation is working expires September 30, 1988. We strongly feel that no new permit should be issued, and that the State of New Jersey urge this company to recycle its waste, and help, if necessary, to provide markets for that waste. In other words, if the State of New Jersey needs acid in some of its activities, they should provide a market for this acid which is currently dumped in the ocean.

SENATOR PALLONE: September 30, 1988?

MS. ZIPF: Yes, 1988.

SENATOR PALLONE: But that is issued by EPA?

MS. ZIPF: That's right; that's right. But, if they have a market for their waste, there is no need, and need is a very crucial element in granting a permit for ocean dumping. You have to prove you need ocean dumping. If the State of New Jersey says, "We don't want you to ocean dump and, in fact, we are providing this market for your waste," then EPA would be able to deny the permit to Allied Corporation.

The fourth dump site we have is the wood-burning barge, which we talked a lot about today. A gentleman even lost his boat, and his life was obviously threatened. As a result of this operation, tons of particulate matter are discharged into the ocean, with conflicting environmental impacts. I might also say that there is no environmental impact statement for that dump site -- for that burn site, I should say. There is no EIS, and that dump site has been operating without one since its inception. They have been operating under one-year permits. They say an EIS is due out

by the summer of this year, but I think the State of New Jersey is certainly capable of opposing any additional burns until an EIS is completed, and that they can stockpile that waste.

SENATOR PALLONE: I was trying to make the point before that DEP has emphatically told me, and told the Senate Energy and Environment Committee that they, in fact, support wood burning at sea. There was no question about it. They said it was a good thing; they were supportive of it.

MS. ZIPF: It is the only thing; I don't know if it is necessarily a good thing.

SENATOR PALLONE: Well, my point is, this is not something where-- We haven't even been able to educate, I guess, the Legislature or the State bureaucracy to even agree with us on this one.

MS. ZIPF: Right. Well, without an EIS, you have a basis to say, "How can you even begin to discuss environmental impacts, when there isn't even an environmental impact statement available?"

SENATOR PALLONE: If you remember, we did -- not this summer, but the previous summer when we had the hearing in Point Pleasant -- ask that they do some sort of a study. They did a study, about this thick (demonstrates), about how the toxic materials--

MS. ZIPF: The effluence and the smoke, right.

SENATOR PALLONE: --are not harmful to the coast. But that is not the same thing as what you're saying.

MS. ZIPF: Right. No, that was just a study. That needs to be incorporated into an entire environmental impact statement, which is required to happen before a site can be designated. But because of the need, the operation has continued without an environmental impact statement, and EPA is allowed, under law, to have one-year permits -- extend one-year permits -- which enable them to continue on, but it is without an environmental impact statement.

But I think New Jersey can say, "We don't want any more wood burning off the coast of New Jersey until there is an EIS. We want to know the full extent of the environmental problems that could be happening out there." I don't think they know what happens when you dump tons of particulate matter into the ocean.

SENATOR PALLONE: They know they don't want to do it on land.

MS. ZIPF: They know they don't want to do it on land, right. The other thing that may, in the long term, be a solution, is to develop a specialized technology. You know, the barbaric technology we have today for wood burning is to have four-foot stanchions on a boat, and pile wood 30-feet high. Now, that is not technology, as far as I know the American public to be capable of implementing. So, special technology -- specialized technology -- can be developed to enclose that burn barge, to totally take away any threat to the public from falling barges -- from falling logs off the barge -- because it would be contained, and the smoke that would be contained would have to go through the kinds of filters and the kinds of filtering that you would do for any burn, to reduce the amount of soot, particulate matter, and contaminants that are coming off that burn. I think that is the minimum that should be required for that burn site, and we can request that from the State of New Jersey.

Finally -- well, not finally, but I will be brief -- we have an opportunity this year to close a dump site. The 10¹/₆-mile dump site offshore, which is called the "industrial dump site," which has been dumped in since the 1960s, is where the duPont Company dumps its waste. Two of its companies dump their waste there. One is located in Linden, New Jersey, and has the ferrous oxide waste. The other one is located in Delaware. They produce the agricultural waste that gets dumped at the industrial dump site.

On June 26, 1984, EPA Region II and duPont entered into a consent order to implement alternatives and to stop all ocean dumping by June 30, 1987. That is the deadline. New Jersey should hold them to this deadline, get a personal letter from Mr. Daggett that the consent order will be strictly enforced, and that there will be no extension. Without duPont Chemical Company dumping at this site, there will be no need for this site, and the site can be closed. That would be a tremendous victory for our ocean, considering all we have heard today about looking for additional dumping.

SENATOR PALLONE: The 106-mile sewage sludge site is adjacent to this?

MS. ZIPF: It is adjacent to that industrial dump site. What they did was just split it into two parallel areas, and designate one for industrial waste and the other for sewage sludge. I might also add that they dumped digester sludges at that 106-mile dump site for years. The digester sludge is a sort of scraping of the bottom of the barrel at sewage treatment facilities, and then they dump it out at the 106-mile dump site. So, sewage dumping has occurred out there previously.

But I think it is very important that we hold EPA to that deadline, because I talked to them today, and they were shocked. They had no idea that there was a deadline coming up and that there was a dumper that was supposed to get out. They said, "Oh, well, I think there may be a loophole that they will be allowed to ask for another permit." I said, "Absolutely not. It is right here in this permit that they are supposed to stop ocean dumping by June 30, 1987." I think New Jersey should hold them to that.

Ocean incineration: Under the Coastal Zone Management Act -- and perhaps you may want to talk to Legislative Services -- New Jersey has the right to review Federal actions, to determine whether or not they are -- whether the actions are

consistent with the State's Coastal Zone Management Plan. Contrary to citizens' opposition, on February 14, New Jersey granted a conditional consistency determination for Chem (phonetic spelling) Waste Management to do an experimental burn of PCBs. On May 28, EPA denied the permit, due to lack of critical scientific, legal, biological, technical, and other information that needed to be obtained. Currently, studies are under way, and they are beginning to promulgate those regulations Mr. Daggett talked about as well.

New Jersey never should have granted that consistency determination. I think New Jersey should be embarrassed that it did, due to the lack of information available. In the future, what I think New Jersey should require -- something that legislators can do -- is deny, Chem Waste in particular-- The company should be looked at and scrutinized to see its capabilities in handling hazardous waste. It was obvious that Chem Waste Management had very little ability to control any of its processes and had a horrendous record of contaminating the environment. Chem Waste Management should not even be considered for ocean incineration by the State of New Jersey because of this horrendous record. They should prove that they have had a clean record for seven years.

SENATOR PALLONE: You mentioned the consistency determination. That was something I was really furious about. I requested legislation that would basically tighten up our review. My recollection is that OLS came back and told me there really wasn't anything we could do. But I think I am going to look into it again, to see if we can get to the bottom of it.

MS. ZIPF: I think that perhaps the law could change, so that a company would have to prove itself capable of handling hazardous waste for a period of seven years. In that time, by making a company prove it has a clean record -- any company -- by making a company prove itself capable of handling

hazardous waste and having a clean record with no violations for seven years, we would be dealing with a reputable company. Anything less than that, you're dealing with a company that has the capability of polluting the environment, and that has not proven itself worthy of taking hazardous waste out into the ocean for incineration.

So, an amendment could be added to the consistency law -- or a tightening up -- that a company must prove itself worthy by having a clean record of seven years.

SENATOR PALLONE: I think the problem was -- and maybe there is no reason to talk about it now -- that this consistency determination was apparently something that had not been done legislatively in the past, but, as you're saying, was rather like a Federal--

MS. ZIPF: Permitting process within--

SENATOR PALLONE: --you know, something that the Feds had basically given to New Jersey.

MS. ZIPF: Right.

SENATOR PALLONE: It wasn't something that originated through New Jersey legislation -- New Jersey's own rights. I don't know to what extent we can actually change it, because it might just be a delegation of Federal authority. Do you know what I mean?

MS. ZIPF: Right.

SENATOR PALLONE: But we'll look into it.

MS. ZIPF: Yeah, look into it, because if you can obtain that Federal consistency, you could make consistency determinations for all the ocean dumping that is going on.

SENATOR PALLONE: Yeah, but you know what I'm saying. In other words--

MS. ZIPF: Right, I understand what you're saying. The Federal government is saying, "Okay, New Jersey, this is a part of our process. You have to tell us whether or not it is consistent." But I think you have to set up criteria for what is consistent and what is not consistent, so that when--

SENATOR PALLONE: By regulation.

MS. ZIPF: Right.

SENATOR PALLONE: Now, whether or not we can do it by legislation, I don't know, but we can look into it.

MS. ZIPF: Yeah, look into it, and if it can't be done, require that DEP establish that criteria, because I think criteria is imperative. It was obvious that this consistency determination should never have happened. Obviously there is a problem in the criteria, if there even is a criteria.

SENATOR PALLONE: Yeah, there may not be.

MS. ZIPF: For the future, you can establish that criteria, and work with it. The other criteria would be that ocean incineration should not be considered until all of the studies resulting from the EPA's denial of that permit are completed.

So, that was basically the six dump sites. I think we can make a difference in a very short period of time. Senator Van Wagner referred to smoking. I would like to refer to drunken driving. We made a tremendous campaign. And crack. We are making a tremendous effort to control these kinds of things. I think if the commitment and the determination are there on the part of our leadership -- our elected officials -- we can see some turnaround quickly. We don't have to wait five to ten years. We can see it happen by 1991. I am looking forward to seeing that happen.

SENATOR PALLONE: Thank you, Cindy. I agree with you. I am amazed that by just having a couple of hearings, you know, and spending eight hours twice in the last three months, that we were able to get some of these agencies to change their position, and even to get New York to change something, since we don't have any jurisdiction over them.

MS. ZIPF: And being so specific at these hearings has really helped. I have to commend you on that, because it really does.

SENATOR PALLONE: Thank you.

MS. ZIPF: Thank you for allowing me to go before the Army Corps of Engineers.

SENATOR PALLONE: Thanks a lot. I appreciate your coming. I know the Army Corps of Engineers is going to kill us.

Okay, now we will have the Army Corps. Oh, you have a slide presentation. I don't know. I am just trying to decide between the Coast Guard and the Army Corps. You're letting them go first? (affirmative response from audience) Okay, the Army Corps first. Don, can you just wait a little bit?

D O N A L D R A N C E: I'll be two minutes.

SENATOR PALLONE: Do you want to just do your thing while they are setting up?

MR. RANCE: Yes.

SENATOR PALLONE: All right, go ahead. He's going to be two minutes. Don, identify yourself, please.

MR. RANCE: I certainly will. I'm Don Rance. I am representing the Jersey Coast Anglers Association. First of all, I am not here to speak about technical data, but to state the deep concerns of sport fishermen about any pollution affecting the ocean.

I would like to stress the importance of properly monitoring -- which we all know hasn't been done very well in the past -- all sources of ocean pollution at the 106-mile dump site -- toxic incineration, wood burning, chemical discharges, and others. Our ocean, which we use for countless recreation time, and which we derive a food source from, is a marine breeding grounds, and it has to be made as pollution free as possible.

I would like to offer the help of all of our 47 clubs, which number 24,000 anglers, to assist you in cleaning the ocean.

SENATOR PALLONE: Thank you, Don. You know, at a meeting of the Jersey Coast Anglers is where I found the

Thousand Fathom people. I thought their input was very valuable, today in particular.

MR. RANCE: Right. They told me they were coming, but I wanted to come myself.

SENATOR PALLONE: I appreciate it. Thanks again. Take care.

Mr. Zammit, I don't know if my apology is going to mean anything, because I know you have been waiting all day. But I appreciate your coming and waiting so long.

J O H N Z A M M I T: Senator Pallone, I have had the opportunity of being a hearing officer, so I respect your problem. I have made certain suggestions off the record, which perhaps you may wish to consider for future meetings.

SENATOR PALLONE: Okay, thank you.

MR. ZAMMIT: Let me introduce myself. I am Chief of Operations of the Corps of Engineers New York District. With me I have our expert relative to water quality programs in the ocean, Mr. John Tavilaro (phonetic spelling). He is Chief of our Water Quality Compliance Branch, from the Operations Division.

My presentation is going to be quite extemporaneous. I will be utilizing slides. Unfortunately, at this late stage, the general public can perhaps have an appreciation of what has been done in their system. You have not been afforded the same opportunities yourselves. Obviously, other hearing officers on your Committee will have the opportunity of reading the briefs, and I respect that.

I am going to give you an overview, as I mentioned, of basically the dredging and draft program that the Corps of Engineers undertakes for the people of the States of New York and New Jersey. We will talk to you about what we have done, as a group, to include EPA, Fish and Wildlife of the states, and the general public at large.

I want to take this opportunity to commend Senator Van Wagner, and yourself, sir, on the fact that suggestions were made that the two states get together, with a view towards coming up with problem solving, and then getting on with the solution. Perhaps from our presentation, you will actually see that we have done something very similar to that. Perhaps this is an opportunity now for you to realize what has been done, and through your capabilities as legislators, perhaps you can begin to resolve the institutional arrangements necessary to get on with doing what has already been developed.

I also want to commend the Coast Guard-- (balance of comment lost to transcriber; witness walking toward slide equipment)

SENATOR PALLONE: Excuse me, you are going to have to take that mike with you, so your testimony will be included on the record.

MR. ZAMMIT: All right, thanks. The area of responsibility of my organization is shown on this particular chart. Specifically the concern you have -- regulatory -- is the area shown in yellow. That includes the entire section up to the Canadian border, believe it or not. The principal area of concern to you as Group II, site specific, is New York Harbor, to include also what I believe is an important area -- New Jersey.

When one looks at the harbor, in principal you will note that it is a man-made system. The natural channels in the harbor generally have a depth of 18 feet. However, the Congress authorized the Corps of Engineers to undertake dredging and the maintenance thereafter, to serve general navigation in the Port of New York.

The Corps of Engineers' sewage program of the Congress primarily gets involved in deep draft, shallow draft, and also recreational boating activities. We do not have millions of dollars to go out and do work just because the dollars are

available. We do the work principally because constituents, to include New Jersey, wish to have work undertaken. If they do not wish to have the work undertaken, we just do not program to implement that particular activity.

So, as the young lady earlier indicated, you can legislate as much as you want, and if you don't wish to have the work done, then the Federal government says, "Fine, we honor and respect the State's position."

When one looks at the total Port of New York, one can see that we move in the order of 200 million tons, and right now in the order of 180 million tons annually through the system. We look at harbors, such as Port Newark and Elizabeth in New Jersey, and we see that perhaps it does bring quite a lot of economic gain to the community of New Jersey. When you compare just the land-based activity of Port Newark and Elizabeth, you will see it is by far much larger than all of the three port activities of container operations in Norfolk, Baltimore, and Philadelphia combined. You are talking about a major harbor. You are talking also about ancillary activities associated with that particular program.

Now, remember what I mentioned. The Corps of Engineers only does that which you wish. You are very concerned in your whole approach today, sir, about how to reduce dredge material dumping in the ocean. This particular graph depicts the historical record, and present record, of disposal in the open ocean waters, on land, and in other locations. You will note that in 1985, which is our last year of record, that clearly efforts have been undertaken, through the regulatory process, to move material away from the ocean, where at all practicable.

Now, for the record, the ocean dumping law is very clear. It primarily says the ocean is there, but you may not dump there unless you have looked at reasonable alternatives. And, in the absence of reasonable alternatives, only then can

you consider going to the ocean. That is not to say that in the inland areas you have the same law. The other law, inland, is not as strict. The present law -- to reiterate -- for ocean dumping is, "Hey, you tread on me last."

Where is the present Mud Dump site? As depicted on this chart, you can see it is approximately six miles off the Jersey coast; 12 miles off the New York coast. It has been there for over 70 years -- seven zero years. There are other sites where we have done dumping operations. The historical record shows that back in the 1800s, the site was right in the entrance, and perhaps imposed a potential navigation problem; therefore, was relocated, over time, to the present site.

We also dispose material off the New York area, shown on the chart off the Rockaways, when, indeed, we do our inlet work. It doesn't necessarily all go to the Mud Dump site. The present Mud Dump site is one by two miles; is divided by the Corps of Engineers and other agencies into four quadrants, and various activities go on in that particular location. The present site, as you can see, is in this upper northeast region.

In addition to the ocean, the New York district, as well as the State of Connecticut's activities, are regulated by Waltham, Massachusetts, at the Corps of Engineers' New England Division -- to the Long Island Sound. So, it is not just the ocean where material is disposed, but also the Long Island Sound region, shown on this particular chart. For New York material, the principal disposal site is this area here, in the western Long Island area.

Now, how do we do our dredging? Many people here had slides showing, you know, typical operations. Okay? Unfortunately, many people have never seen a dredging job. This is called a "hopper" dredge. It is primarily utilized in deep draft activities, where it is open ocean subject to extreme wave attack. Wave climate conditions, unfortunately, restrict certain kinds of activities in what we call "clamshell

operations," so we utilize these kinds of dredges. All it primarily is, is a vessel that has a couple of arms on its sides -- port and starboard -- which acts like a vacuum cleaner. It sucks up material from the ocean bottom or bay bottom to whatever depth you desire, and moves the material into what we call "hoppers." Then, it eventually takes the material, which remains in its cargo hold, out to the sea to the disposal site.

Another kind of equipment we use in the clamshell operation is primarily just a scoop that goes down into the particular channel area, excavates the material, and puts it into what we call a "dump scow." The dump scow is eventually towed to sea, to the specific site I alluded to earlier, six miles off the Jersey coast.

So, that is how we keep your harbors open, by dredging, using this kind of method. Generally, we do 90-some-odd percent of our work by contract. The Corps of Engineers does have a fleet of one major vessel out of the Philadelphia district area. We generally only utilize that, I would say, in one-tenth of our operations.

What is dredge material? Depicted on this particular slide, you can primarily see -- as indicated by EPA also -- that when you talk about a material, you talk about a lot of volume of water. The water is some 78% in volume; the solids, or dredge material, per se, is specifically 20% by volume. These are what we call the "organics." These are the principal areas of concern of dredge material. The rest of it is a gas.

What are the public concerns? We talked about the idea of the dredging procedures. That is generally not a problem. Transportation-- We developed a methodology for transportation. The principal problem we have in our total system, again, is the disposal. You've heard the individuals here: "Hey, we want alternatives. We don't want the ocean." Unfortunately, when you go through what we have gone through,

you begin to say, "Well, there's the solution; let's get on with it."

With all due respect, sir, one of the messages I wish to get across straight today is, there are solutions, and perhaps the State Legislature needs to implement some financial support to undertake the solutions to the concerns.

Alternatives for dredge material: You've heard about the six-year study by the Corps of Engineers. Indeed, we had the cooperation of agencies coming in to work with us. They included EPA, Fish and Wildlife, your State agencies, and constituents who have been here today. We have tried to work together, with a view to coming up with solutions to the problem. We have considered -- as indicated here -- large containment islands, small containment areas, wetland stabilized areas, upland disposal, sanitary landfill cover, and beach nourishment. As Dr. Suszkowski of EPA indicated, we did not wait until we came up with all the solutions to implement the solutions. As soon as we arrived at a potential that was acceptable to the general public, we would move forward. We will continue to force applicants to consider the reasonable alternatives, and then only as a last resort will they be permitted to go to the ocean, subject to certain criteria.

SENATOR PALLONE: Mr. Zammit, are you going to give us some information about the subaqueous burrow pits, and where that's going?

MR. ZAMMIT: I would be pleased to, sir.

SENATOR PALLONE: Okay.

MR. ZAMMIT: You'd heard of our combined sewage systems. No matter where you go in the metropolitan New York/New Jersey area, you have combined systems. You have seen clearly that no matter how many sewage treatment plants we construct in our total metropolitan community, we are not going to eliminate discharge of pollutants. I think that was clear. The moment it rains, you by-pass your sewage treatment plant,

and you go right back into the waterway where you have been going for hundreds of years. However, the sewage treatment plants that are on-line are minimizing the amount of pollutants in the dry spell season from entering into the system. But, it is not a cure-all. So, unfortunately, there is not enough money around to minimize, to the maximum extent, all of your pollutants.

Very few people have seen this slide, but believe it or not, it is a 1972 overflight of the New York Harbor area by satellite. It is an enhanced photograph. It primarily enhances the (indiscernible) that comes out of a natural system -- the Hudson River plume. Okay? When you look at that particular plume -- I don't know if the lights are clear enough to show it -- it comes all the way out here just in the natural state. Regardless of what you and I are putting out in a man-made system, this is the natural system that is taking place.

We require both Federal agencies, including the Corps of Engineers, and all private applicants -- State agencies and others -- who wish to do dredging and disposal, to go through a public interest review process. In dredging, we require -- whether you be a mom and pop type operation or a major port developer -- that you undertake biological, chemical, and physical testing of the dredge material, before you can dispose of it in the ocean. This is to review the matter of whether or not you are in compliance with ocean dumping, water quality criteria.

Now, remember what I also told you earlier. This is a last resort. If the individual has a nearby upland disposal site, or other acceptable, reasonable, less environmentally concerned area, indeed, that is where it should go. Only in the absence of those alternatives, and if you can display that they are not available, then we will permit you to consider going to the ocean. We are to be in compliance with EPA criteria, and only after compliance and public interest review are you permitted to dispose of dredge material in the ocean.

Now, of course, in addition to that criteria, we have NEPA, which you have heard about, the Clean Water Act, the State water quality certification procedures and, of course, as I mentioned, the overview law, the Ocean Dumping Act.

In our five- to six-year study you heard about today, we have obviously considered those particular alternatives that are not practicable. On average, we are talking about 10 million cubic yards of material annually to dispose. If you want to consider putting it in the World Trade Center, be my guest, but obviously that is not a practicable alternative. This is the volume of material we are basically talking about for the New York/New Jersey system.

Of course, there are always special cases where the dredge material, clean sand, is put on particular adjacent beaches. We did this with the National Park Service. We dredge Sandy Hook, Ambrose Channel. We take the material and put it on their beach. The regulations are very clear on that; the law is very clear. If you wish to have the material on the beach, the Corps of Engineers will cooperate with you in the placement of that material on your shore. It must be a request from the Governor of the State. That is how the law reads, but if the State of New Jersey, through DEP or some other group, comes in and comes up with the difference in cost, we would be only too glad to cooperate and place the material on your shore.

Now, in H.R. 6, fortunately, the law was slightly changed, to say that instead of paying the 100% difference in cost of going to the less reasonable site, it is only 50%. So there is another incentive to move this material on the beach. One of the slides I showed earlier, showed some 30% to 40% of material going other than to the ocean. Much of that went onto your beaches.

SENATOR PALLONE: There is a Navy project -- you don't get involved in that, because that is the Navy -- where we are trying to get beach fill for Sea Bright and Monmouth Beach.

MR. ZAMMIT: Well, the Corps will be in both, from the standpoint of a regulatory permit. If you go through the regulations I have just mentioned, had it been a Corps of Engineers' project, we would consider the most economic and environmentally sound procedure. If the locals are willing to pay the difference in cost of placing it on your beach-- Perhaps the Federal system for the Navy will allow you to have it on your beach if you pay the difference in cost or percentage.

SENATOR PALLONE: That is what we are trying to get, but we are in competition with Sandy Hook, unfortunately.

MR. ZAMMIT: I am going to try to speed this up, because I know many of you have other important assignments.

When you look at the total system of New York Harbor -- the so-called 500-odd miles that we operate and maintain -- unfortunately, there are only a few of those particular areas that have sand appropriate for beach use. It depicts it on this slide. Also, you heard one of the speakers mention to you about the fact that we sand mine out of our channels; we stockpile it; and we allow construction utilization of those particular sands as well. What does that do for us? It saves you, the taxpayer, financial activity, by allowing a private corporation to go in and do that free of charge. They utilize the sand as a resource for other values in the system.

Special cases: Sanitary landfill. You heard much about the Fresh Kills problem that no one wants to call Fresh Kills any more. The City of New York is trying to cooperate in working up a plan to take its dredge material from its terminals and utilize the material as a sanitary landfill cover. They have a prototype program under review by various agencies, to include the Corps of Engineers, to come up with a way of minimizing the amount of material that has to go to the ocean.

SENATOR PALLONE: The State of New Jersey never followed through on a similar program, did it?

MR. ZAMMIT: No, sir.

SENATOR PALLONE: No, I know, because we have been pressuring them -- not pressuring them, but asking them -- to do that for several years, and they have never followed through.

MR. ZAMMIT: I believe most of the areas around the metropolitan area, sir, of New York are being closed down. The unfortunate area you have remaining -- when I say unfortunate, it is quite a major problem right now -- is up in the Meadowlands, and the locals would like to see that closed down. But, most of them have been closed down. I remember reading recently in one of your local newspapers about the fact that the State has even conceptually come up with the idea that you are going to transport your waste now in the future to the State of Pennsylvania.

Now, feasible for large volumes-- Candidly, we did a study of the entire area within 100 miles of the Statue of Liberty, to find where we could have acreage available for the disposal of dredge material. When we looked at sites that were greater than 10 acres, we came up with some 600-odd sites. We immediately ruled out, with due respect, the wetlands, agricultural prime lands, and then got down to barren lands. So, when you question, sir, what has been done, how are we minimizing discharge of dredge material, etc. into the ocean, this is what we have done: We have run the gamut of looking for a solution. What was the final determination of upland disposal sites? Well, the same problem. Okay? Every time we came up with perhaps a site, local legislation was immediately introduced. You did not get a discharge water quality certification. There were questions about groundwater contaminants and, for whatever reasons, we, unfortunately, resolved the whole matter of upland disposal sites to come down with just a couple of locations. The remaining ones around the

Port of New York are shown on this particular chart. This is the particular locale I mentioned of the Fresh Kills area for the sanitary landfill. There are certain sites that were evaluated, and all were knocked out. Nobody, but nobody, wants the material in their back yard, for whatever reason. These were extensive studies.

Wetland creation: The Corps of Engineers has created many wetlands; many of them, with due respect, by accident. Disposal sites became highly productive areas; they flourished and became important habitats, where eventually the Corps was denied the opportunity to go back and utilize those sites for disposal, because now they were important facilities for fish and wildlife concerns. And I respect that. Wetland creation was considered through the metropolitan area. We really have only come up with a couple of sites that warrant further consideration.

This particular slide shows you the wetland stabilization sites. There is one over here in Jersey. I look forward to the State, or anybody else, who wants to go help develop that. There are other sites, which we call "containment sites," directly adjacent to land. They are in these areas. As alluded to earlier, every time we came out with these sites up in here as practical solutions -- small volumes, though; I want that very clear -- legislation was introduced to not permit the discharge of the dredge material at those sites.

Now, what have we generally said? The overall study makes it clear that when you talk about large volumes, there just aren't sites available. Perhaps any sites that are available should be used for questionable material, and generally of low volume.

You have heard about the other subject, containment islands. The containment islands are depicted here. You construct dikes, place the material in those particular island areas, and get on with creating a man-made facility.

These are the three remaining areas that warrant further consideration within the Port of New York and New Jersey. We have done extensive biological, chemical, and physical testing of these regions, and are undertaking, and hope to wrap up, perhaps by the end of this fiscal year of the Corps of Engineers, to determine whether or not, indeed, any of these sites could be used for the containment of dredge material. By dredge material -- remember what I'm saying-- It is for those of questionable concern, which perhaps should not go to the ocean.

So, I look again to the State as to whether or not the State, if, indeed, it is determined that these are practical sites, is willing to come up with the appropriate funds to construct these sites.

SENATOR PALLONE: How much are we talking about?

MR. ZAMMIT: We are probably talking about as much as \$30 a cubic yard extra.

SENATOR PALLONE: But when you say the State coming up with the funds-- Why is it that the State has to pay the costs? If we are talking about dredge materials, isn't that mostly private concerns, or is it the Port Authority?

MR. ZAMMIT: Sir, you hit a very interesting question. The real question perhaps should be asked: Who put the pollutants in there in the first place? Was it the guy who was at the terminal who had to dredge, or was it the State and other agencies that allowed, over time, for whatever reason, the pollutants to come into the system? So, whose problem really is it? It is the total system's problem.

SENATOR PALLONE: Yeah, but I'm saying, Mr. Zammit, when, for example, an industrial outfit in, I don't know, let's say Newark -- or, you know, on the Arthur Kill, for example -- wants to dredge for their barge, or their ship, or whatever is coming into port, and they take that material out to the Mud Dump site, don't they pay the costs?

MR. ZAMMIT: They pay the dredging costs and the disposal costs. The question you're asking is, shouldn't they also pay then the cost of the creation of this island? The Federal government would look then, institutionally, to the State to come up with a coalition -- or a cooperating agency procedure, to get this constructed. Now, if, indeed, you wish to say it should be the Port Authority's responsibility--

SENATOR PALLONE: Oh, I don't know; I am just throwing that out.

MR. ZAMMIT: Right, but that's the question: Who should do it? That is the big question. We know we don't have the authority to construct these sites.

SENATOR PALLONE: In other words, someone would have to take it on, in terms of the actual coordination, and that is going to involve some funding.

MR. ZAMMIT: Right. Now, what did they do down in, for example, the State of Maryland? You will see that the Port Authority down there works directly with the State of Maryland, and has transportation funds perhaps, where the state allowed them to help in the construction of the dikes and the management of an island. You, as the State Legislature, could introduce legislation to set up a public party within the State to construct these facilities and manage the disposal site, if, indeed, you don't wish it in the ocean.

SENATOR PALLONE: But, at this point, that would be premature, because you haven't made that determination, or not?

MR. ZAMMIT: At this particular time, sir, we have balanced it down that these are three potential sites. Now, when we go out through the total public interest review process, and say, "We want to put a site here; you live there," let's see the political outcry of this constituency. Okay?

SENATOR PALLONE: I understand what you're saying, but it's a little different. For example, I know one of the sites that was proposed for upland disposal was, I believe, in

northern Monmouth, in the Bay Shore area. There was significant opposition to that. However, these containment islands-- Why would there be significant public opposition?

MR. ZAMMIT: Primarily, these are the principal concerns: People who do the fishing say, "This is a bay bottom. As far as I am concerned, the migratory fish run will be impeded." Okay?

SENATOR PALLONE: Those areas are not for shellfish, though, are they -- not used for shellfish?

MR. ZAMMIT: Generally not.

SENATOR PALLONE: Those diagrams-- I mean, that is not an indication of the size of these things, is it?

MR. ZAMMIT: Potentially, up to those sizes -- potentially up to. Obviously, once you come up with an evaluation to show that these are good candidates, you are going to have to concern yourself with wave attack climate, refraction analyses, the impacts of the construction of those islands on the adjacent shores.

SENATOR PALLONE: So, those are actual size then?

MR. ZAMMIT: Well, it depicts generally. They are generally on the order of, say, 500 acres or so, we're looking at -- huge. Remember what we are looking for, sir, is a long-term solution.

SENATOR PALLONE: A 500-acre site -- say one of those three -- how long would that last? I mean, how long would you be able to use that?

MR. ZAMMIT: Well, on average, sir, we have -- probably a worst-case scenario -- questionable material on the order of 200,000 yards per year. So, if you are dealing with a site like that -- I will bow to my scientist -- 10 or 15 years?

J O H N T A V I L A R O: No, it's more than that. We're probably talking more on the order of 20 years or more.

SENATOR PALLONE: Twenty years to build up to the size of that?

MR. TAVILARO: Well, you build the site first, and then you start filling it in.

SENATOR PALLONE: Those look huge. Three of them practically--

MR. TAVILARO: You could probably fit two 500-acre sites on each one of those, but you would have to designate a bigger area, because you have to design the way the site would look.

SENATOR PALLONE: When they are completed -- after that 20-year period -- what do you have, an island?

MR. ZAMMIT: You would have an island.

SENATOR PALLONE: Can you use it for anything?

MR. ZAMMIT: Eventually, if it is dried out. You may wish to have it as a recreational part, a refuge, or whatever.

SENATOR PALLONE: Is there any precedent for this anywhere else?

MR. ZAMMIT: Heart Meadow Island (phonetic spelling).

SENATOR PALLONE: Where is that?

MR. ZAMMIT: In Maryland -- Baltimore Harbor, yes, sir.

MR. TAVILARO: There's Craney Island (phonetic spelling).

MR. ZAMMIT: Craney Island was a Federal land area created by Congress to allow the Corps of Engineers to build dikes. This was some 20-odd years ago. They have been continuing to do that. They actually had a major problem down in that area, where it was filling up to the point where they had problems of going elsewhere, and they developed a management plan to eventually dewater much of the system to allow the continuity of life of that facility.

SENATOR PALLONE: Do you expect to have a recommendation to complete your survey this year -- 1987?

MR. ZAMMIT: Yes. Now, you heard earlier from other speakers, including Mr. Lou Figurelli, that they do not consider these practical from the standpoint of the finances,

and perhaps they are right. Remember, perhaps people are willing to pay much more money, for many reasons, and if the State sees fit that it wants to stop ocean dumping of questionable material, and wants to put the material into such a site, and is willing to come up with those funds, so be it.

SENATOR PALLONE: Is that the only objection you have had at the PICG -- the financial problem?

MR. ZAMMIT: Principally, institutionally, who is going to be the sponsor of such construction? However, we have not gone through the entire public interest review, where these particular sites have gone to the public for further consideration. Obviously, the structural analyses and final design would only be implemented once you have gone through the total environmental review. You are going to need State water quality certifications; you are going to need coastal zone management compliance permits to undertake these particular actions -- all State requirements.

SENATOR PALLONE: Thank you.

MR. ZAMMIT: You had earlier presentations regarding burrow pits. These are the locations of existing burrow pits in red. The sand-mining areas are shown here, where potentially we may be able to dispose dredge material. Again, you will find that the sand-mining people are willing to go in and create those sand-mining areas, provided they don't have to go through the entire bureaucratic and financial process of coming up with the location.

You heard earlier discussions -- which I want to allude to -- about the fact that, "Well, why don't we have burn-it barges that are self-contained?" etc., etc. I think generally, American industry is such that if, indeed, the public will commit that a site can be used forever and ever, they will make an investment. But when you only give me a one-year permit, there is no way I am going to spend millions of dollars to get a one-year return. So, that is another practical consideration to be brought to your attention.

SENATOR PALLONE: Now, on the burrow pits-- I don't want to cut you off. If you want to speak longer, then go ahead, but I do want to ask some questions.

MR. ZAMMIT: Okay. I want to give you a quick overview. About these burrow pits, you heard discussions, again, relative to, "Hey, this is not the best site." We identified five principal candidates for further consideration. Mr. Figurelli is quite correct. When we went out and did a pilot program, which was more of a research activity, he, indeed, sued the State of New York, and overturned the issuance of the state water quality certificate. As a result of that, further evaluations were made, and we came up with various sites under consideration, and perhaps some of these may be used in the future for the disposal of questionable material.

Now, when you look at them, some of those sites are not natural holes all the way around. You may have to create an underwater barrier, place the material of concern into the pit, and then eventually cap it with clean material. This is a typical cap operation, where you just basically place the sands -- or questionable material, sand not being a concern, but your mud silts or clays -- putting them into the area with a clean over cover.

SENATOR PALLONE: Is that a burrow pit, or is that the Mud Dump site?

MR. ZAMMIT: This is a typical burrow pit. It is also what we do out in the Mud Dump. We have done some disposal operations, tested them out, and, indeed, it does work, not only in New York Harbor, but through many other parts of the United States.

These are the results of our capping operation. For the record, I will voice communicate them, but you can read them as well. It is effectively done. Less than 4% of the material is disbursed during the actual dumping operation. We

find the cap to be stable. As an effective barrier, it prevents the migration of contaminants. The biological uptake of the contaminants is unlikely to occur. This is not done just from the New York bight, but from a national perspective.

So, when we get down to it, the big volumes-- The probability, whether we like it or not, is that the ocean is perhaps the only acceptable site from an economic, environmental, and, say, an overview procedure of public concern, for major volumes of material.

Now, I mentioned that the ocean disposal site is essential. However, when we get down, we are continually monitoring other alternative sites. Every applicant, as I mentioned, including the Corps of Engineers, considers practical alternatives. There is merit in further pursuing, say, burrow pit evaluations, as well as containment islands. That is where we are in this five-year study. We will look to the states as, say, cooperating agents for the implementation of any of those particular sites they feel they may wish to partake in, in lieu of the present practice of taking the questionable material and disposing of it in the ocean in a capping operation.

Now, that generally is the matter of dredging, and I will get--

SENATOR PALLONE: May I just interrupt you before you go on? On the burrow pits again, the way I understand it, with the proposals that come up under the PICG, basically you examine all of the proposals, and then when they get to a certain point you have a public hearing. In other words, with the burrow pits and with the containment islands as alternatives-- They are both moving along right now. I am just a little concerned about the procedure, and how that would fit in. We heard that the Federal legislation now says that in three years, they have to move the Mud Dump site further out to 20.

MR. ZAMMIT: The questionable material.

SENATOR PALLONE: Now, what I'm saying is, is what you are doing with the burrow pits and the containment islands-- Does that coincide, so that at some point we could use these options, instead of moving the site out?

MR. ZAMMIT: It is going on all the time. We hope that within about two months, we will be able to put out the draft report that Mr. Figurelli made mention of. After that, I would imagine -- as I mentioned earlier -- that at the end of the fiscal year, we will probably have a better report relative to island containment plans.

SENATOR PALLONE: Both the burrow pits and the island containment.

MR. ZAMMIT: Sure, but the burrow pits will go first, and then the island containment afterwards.

SENATOR PALLONE: At what point, then, can we get involved? I just don't understand the process, I guess. I am trying to figure out at what point the State, or the Feds, or whoever, can say, "This is the way we are going to go."

MR. ZAMMIT: Well, primarily you've got the various sites; say, 20 potential burrow pit sites. We have to do a public hearing relative to those sites, to get total public input again to identify where we are.

SENATOR PALLONE: That will happen this year?

MR. ZAMMIT: Hopefully.

SENATOR PALLONE: For both the containment and the burrow pits?

MR. ZAMMIT: No, I didn't say the containment; for the burrow pits. I will allow John to go further, but, again, the burrow pits -- the existing burrow pits -- generally won't require an up-front financial contribution, because they're there. Okay? That's important. However, we will have to file an application to the State. We have an EIS in preparation right now relative to the burrow pit sites. The State will

have to review any application for the utilization of those burrow pits.

SENATOR PALLONE: Are any of those in New Jersey -- the burrow pits?

MR. ZAMMIT: In the bay area, right? They're in the bay.

MR. TAVILARO: None of the existing ones are, but there are at least one or two potential sites in Jersey.

SENATOR PALLONE: So, it's really New York which is probably going to be objecting to it.

MR. TAVILARO: Yeah. Unfortunately, most of the sand is in New York -- fortunately or unfortunately.

MR. ZAMMIT: So, several months are going to go by; then the EIS-- I have already heard constituents here say they are going to sue us if, indeed, we are going to use the burrow pit in their back yard. You've heard that today. So you know the potential obstacles relative to implementation of these particular programs.

SENATOR PALLONE: If you care to-- Do you just feel that the opposition is going to be so great to both of these alternatives, that we shouldn't even be thinking about them, or are you very optimistic?

MR. ZAMMIT: No, I am not optimistic. I will be very candid with you, sir, and only say, as a resident of the State of Jersey, that principally, when one sees the estuaries, and they are more willing to say, "Let's put questionable material in the estuary," which is much more productive than the ocean -- "We are willing to accept that, but we are not willing to accept that questionable material in the ocean" -- something is amiss. Do you follow me?

SENATOR PALLONE: Well, I guess-- I don't know. I am just trying to figure out whether or not these two alternatives seem to make sense to me, or if they are really going anywhere. You're not very optimistic, I guess.

MR. ZAMMIT: Okay, but if I told you candidly that, "No, we shouldn't consider them further," the first ones who are going to turn around and say, "Hey, you know, you didn't do your job," will be those who don't want ocean dumping. Remember, our charge is to consider alternatives. We will go to the maximum extent possible to evaluate them and open them to the public, and if the Legislature of the State of New Jersey or the State of New York opposes the issuance, through the state water quality, so be it.

SENATOR PALLONE: Maybe attitudes will start to change because of the lack of alternatives. Maybe I am just being optimistic, I don't know. I'm sorry, go ahead.

MR. ZAMMIT: Fine. The next program you heard about was the driftwood. Now, in the Corps of Engineers, we also have a charge to remove drift material out of the Port of New York. There are two basic programs: One is a program of removing floatables on the actual open water within the port limits. We do this eight hours a day, seven days a week. We are patrolling the system and removing debris from whatever source -- from the upper Hudson, from Long Island Sound, back from the ocean. Remember that plume I showed you? A lot of material goes out to the ocean in a natural state. Much of it stays in the harbor, where basically we pick it up in drift nets and, indeed, once we pick it up, again we have a problem of disposal.

There are various pieces of equipment -- large size equipment -- certified by the Coast Guard, our sister agency. We try to do the best job we can, and move as much material out as we possibly can, to make the harbor safe for navigation.

Now, the drift sources you are generally aware of -- old abandoned piers and also a bunch of vessels. I remember an earlier study count, and we had close to 1900 abandoned vessels and some 200 abandoned piers throughout the metropolitan New York and New Jersey area.

We -- whether we like it or not -- only have one available disposal operation, and that is the Atlantic Ocean. We have tried in the past to get the appropriate permits from the State to incinerate the material in a land incinerator we used to have in Hudson County -- in Jersey City. I think you have heard of the unfortunate pitfalls. You just do not get a State air quality certificate to operate such a facility. This turned out to be one of the last resorts. We go to the EPA for an appropriate permit. I want to make it clear that it is not only the Corps of Engineers that burns material out of the harbor system. There are also private contracts, which are issued through the metropolitan communities, that the EPA also permits to dispose by incineration at sea.

SENATOR PALLONE: But they are very small -- right? -- by comparison, in terms of the amount of material they incinerate. It is mostly the Army Corps.

MR. ZAMMIT: I believe you heard on the order of 70% to 80% is Federal project work.

SENATOR PALLONE: And that is part of this driftwood program?

MR. ZAMMIT: Yes, sir.

SENATOR PALLONE: How is that financed, Federal?

MR. ZAMMIT: Excuse me?

SENATOR PALLONE: Is the driftwood program federally financed?

MR. ZAMMIT: No, sir. Generally, you in the State of New Jersey must pay 30% of the costs of the shore front that we pick up for you. New York State is also required to do about 30% of the cost-sharing of the work we do for them.

SENATOR PALLONE: And the Federal government pays the rest?

MR. ZAMMIT: The Federal government -- you, the taxpayer, yes. You pay the rest.

SENATOR PALLONE: Either way we pay, right?

MR. ZAMMIT: Well, you're paying twice; as a State resident in New Jersey, and also has a Federal, so--

SENATOR PALLONE: You're paying, too, not just me.

MR. ZAMMIT: You asked a very pointed question. Yes, we are all paying for this. So, as you increase your costs, you pay more.

Now, the benefits clearly are this -- I will read them again for the record: Damage to vessels is reduced; real estate enhancement of the direct adjacent shore where the abandoned structures are removed; aesthetically much more pleasing; maintenance costs of the normal operation I do are perhaps reduced; and, obviously, the drift that comes along your shores will not always be there in the volumes you generally have today. So, there are some direct benefits associated with that program.

We have considered alternatives. EPA alluded to all that. The landfills, unfortunately, are not available. Incineration and land-based facilities are generally not available. Recycling has been considered; not available as a practical solution.

SENATOR PALLONE: Why is there so much objection to a land-based incinerator if theoretically this material isn't that toxic?

MR. ZAMMIT: We've got land-based incinerators right now. Did you know that? (no response) When we go knock on their door, and say, "Hey, we've got this driftwood," they say, "Don't bother us, we've got our own problems." You have questionable creosotes in some of your pilings. These are the issues. A local community generally has its own problems. A lot of private--

SENATOR PALLONE: In terms of relative scales, the toxicity of creosote, by comparison, for example, to the toxic material that was supposed to be burned at sea -- volcanis, or whatever -- or the material that creates a problem for some of

the resource recovery plants-- The creosote is kind of the small part of it, isn't it?

MR. ZAMMIT: Right. We spent over a million dollars recently -- in the last year -- to work on the permit program with EPA, and we don't see a problem. With all due respect, this particular action of questionable concern is minor relative to keeping the harbor the way it is, without any cleanup, and allowing a local incineration to take place.

SENATOR PALLONE: I guess what I'm saying is, obviously creosote may be toxic, but certainly the technology exists so that it could be contained without creating poor quality air emissions. Isn't that true?

MR. ZAMMIT: Well, remember my earlier statement, sir. We had an incinerator in Jersey City.

SENATOR PALLONE: And they wouldn't let you use it.

MR. ZAMMIT: We could not meet ambient air quality standards. Where do you site these things? That is the question.

SENATOR PALLONE: It did not meet the ambient air quality?

MR. ZAMMIT: Right. You have resource recovery facilities that are proposing for siting throughout your State. There is obsessive objection relative to their establishment.

SENATOR PALLONE: Oh, I know that.

MR. ZAMMIT: We basically have found, from the standpoint of the Corps of Engineers' program, that this is still a practical and environmentally betterment pace than any other reasonable practice that is not available to us.

Where have we done the work? A lot of it has been done in New Jersey; much of it also in New York. These are the completed projects, including-- You know Liberty State Park is a fantastic park for the benefit of the total public. If you had seen the slides that depicted it in the early '70s, you would be surprised at what was there.

SENATOR PALLONE: Mr. Zammit, is this type of driftwood collection and the incineration at sea-- Is that done, for example, out of New Orleans Harbor or San Francisco, or any of the others?

MR. ZAMMIT: No, sir, because they don't have the problem you have in the metropolitan New York/New Jersey area. They don't have all of the, say, major terminals that you had here as the biggest port in the United States.

SENATOR PALLONE: What do they do with their wood?

MR. ZAMMIT: They don't have the problem, sir, and you would probably find that the laws in their states perhaps are such that they are not as stringent as the State of New Jersey, where some people are probably recycling it right in their fireplaces.

SENATOR PALLONE: So, we have the only wood-burning site of this nature?

MR. ZAMMIT: To my knowledge, sir.

SENATOR PALLONE: Another first. I'm sorry, go ahead.

MR. ZAMMIT: What is the alternative, not to do the work, and to allow incineration right at the local harbor area, in the metropolitan area of 10 million persons? I did see that happen today. As I drove down from Bergen County to this facility, unfortunately, a devastating fire in Elizabeth, and there were more emissions from that local house fire in the adjacent community section than I believe you ever saw from a burn in our ocean burning facility.

One other point I want to go back to on the dredge material is, when you look at the total system of New York harbor, just the area of waterway, the amount we dredge alone -- or are authorized to dredge -- is 5% of the total system. The actual amount we dredge is probably 1/100th of that 5%. So when you look at the system and say, "Corps of Engineers," or Federal government groups, including the states, etc., "you're dumping this questionable material into the ocean," I'm saying

to you, "If it's questionable, what are you doing about the 99.0% of the rest of the material that also must be questionable?" You're just leaving it right in your estuary in your back yard, too. You are not identifying that problem, or doing anything about it, if, indeed, you do have a problem.

The '86 contracts are right here. These are still ongoing. You heard about an ocean burning barge going out. It probably came from the Brooklyn 1 site. There are other sites going out shortly on the Jersey shore. Indeed, there is surveillance, as you have heard today. Chris Daggett was very straight with you. He encouraged the Corps of Engineers to have vessel surveillance. We, in our contracts in the past, through the system we have in the Corps of Engineers, do not generally have inspections of contract work on a 24-hour basis. However, there was this concern. The Corps of Engineers worked with EPA to put a man aboard those vessels. It is the trailing vessel. They go outbound. Now, before that, I actually had my own vessels that picked up drift in the harbor to go out to sea. I did not, with all due respect, find as much as everyone was saying was happening. A minimum amount of material, at best, was ever going off of the vessel, if any at times. If, indeed, a permit is given to the Corps of Engineers, or anybody else, for the continued cleanup of ocean burning of material, it will probably have strong requirements for surveillance -- for inspection.

I know the agreement between the State of New Jersey and EPA-- I know they are trying to work that out for additional surveillance. Be my guest. We have no problem with that.

SENATOR PALLONE: Let me just see if I understand. Most of the wood burning is done by the Army Corps. Is that under contract?

MR. ZAMMIT: It is under contract, yes, sir.

SENATOR PALLONE: So, when we say the Army Corps is inspecting the barges prior to departure, and that an Army Corps person is on the tug, I guess, that is taking the barge out, we're talking about someone from your staff, but the actual operation is contracted out.

MR. ZAMMIT: Right, and the inspector, as well, on the trailing vessel, because primarily he wants to see if, indeed, material is falling off the vessel. So, if he is on the stern of the tow, he can see it falling, whereas if he is--

SENATOR PALLONE: So he stays not on the tug, but on the trailing vessel?

MR. ZAMMIT: On the trailing vessel, yes.

SENATOR PALLONE: He's what, a lieutenant or something?

MR. ZAMMIT: He is a civilian working for the Corps of Engineers, sir.

SENATOR PALLONE: Oh, a civilian with the Corps.

MR. ZAMMIT: Right.

SENATOR PALLONE: He works for the Corps.

MR. ZAMMIT: Right.

SENATOR PALLONE: But this is new.

MR. ZAMMIT: Right.

SENATOR PALLONE: This was not done prior to this summer.

MR. ZAMMIT: It has only been done in the last four months, or thereabouts.

SENATOR PALLONE: That is also true for Weeks and the others -- the private -- the ones who have their own permits, such as Weeks.

MR. ZAMMIT: You would have to discuss that with EPA. I do not get involved with private applicants.

SENATOR PALLONE: No, but I mean, in other words, the Army Corps -- or the EPA does not necessarily have a person doing that with the other applicants. The Army Corps does not send a person out with the other applicants.

MR. ZAMMIT: No, we don't. Now, whether EPA is continuing the issuance of the other private applicants' permits, I don't know. If, indeed, they are imposing on me, I don't believe they would not be imposing on them.

SENATOR PALLONE: They might just have an EPA person going out with them. I am just trying to-- I mean, I hear so many complaints about this wood burning, I'm wondering if it is the private applicants who are the problem.

MR. ZAMMIT: Well, with all due respect, sir, I believe you will also find the State of Jersey undertook its own cleanup program around the Liberty State Park -- the Morris area I think it was -- and did private burning within State contracts, with Weeks or somebody else. Whether they had inspectors aboard or not-- I have not been monitoring that.

SENATOR PALLONE: Thank you.

MR. ZAMMIT: May we go on? I just want to wrap up. I am not trying to be derogatory to ourselves, but we are your servants. We respect your problems. We try to give you the facts. We try to tell you where you can be instrumental in implementing programs that you wish. I have basically told you that there are two alternatives, as far as other disposal sites, that you can work with. That is, you can finance sand placement of our major sand-dredging jobs by coming up with the difference in cost percentage. Also, relative to these other programs, if you wish to encourage the support of, say, the coastal zone people, your DEP, so be it. I believe you will find that within your Department of Environmental Protection group, they are not chartered to come up with solutions to these programs. I don't know whether or not you have even chartered your Commerce Department. I do know you have a private citizenry group that is greatly concerned. You have a port development group which, unfortunately, perhaps have their hands tied. As you indicated, "Why shouldn't they pay?" Every time they have to increase their costs, they pass that on to

the shipper. The shipper says, "Hey, I'm not going to go to Port Newark or Elizabeth any more. I'll go to Boston Harbor or Norfolk." That is what happens in the real world. Every cost you put on your own citizens, increases their costs to the point where perhaps business says, "Hey, bye-bye, I can't afford to work in your system."

When you make your decisions, with all due respect, environmental concerns are important, but also other programs of value must be evaluated.

Thank you.

SENATOR PALLONE: Thank you very much. I appreciate it. That was very informative. I'm sorry we didn't do it earlier. Thank you for bearing with us.

The Coast Guard is last, but not least.

L T. C O M M A N D E R K E V I N J. E L D R I D G E:
We'll stay until the bitter end.

SENATOR PALLONE: I guess you are aware we are going to make a transcript of this, and it will be made available to the different groups which are concerned. So, it doesn't really matter that the other people are not here.

LT. COMMANDER ELDRIDGE: Well, let me change my statement from good morning to good evening, Mr. Chairman. I am Lt. Commander Kevin J. Eldridge, Chief of the Port Safety Division of the Coast Guard Captain of the Port of New York. I am pleased to appear before you today to discuss the Captain of the Port of New York's ocean dumping surveillance responsibilities and activities.

Before I start, I would like to introduce Lt. Thomas Reilly, on my left, who is my Water Pollution Prevention Branch Chief, and actually administers our Ocean Dumping Surveillance Program; and one of his staff members, Petty Officer Jaclidge (phonetic spelling), who is actually one of the enforcement type people who we send out into the field.

The Ocean Dumping Program is primarily the responsibility of the U.S. Environmental Protection Agency, which issues permits for ocean disposal. The Coast Guard role in this program is primarily one of surveillance. Federal authority for U.S. Coast Guard surveillance activities is derived from the Marine Protection Research and Sanctuaries Act of 1972 -- 33USC1401 et al. -- from which the ocean dumping regulations -- 40CFR220 et al. -- have been promulgated. Specific U.S. Coast Guard surveillance authority is traced from 33USC1417C, which assigns ocean dumping surveillance to the Secretary of the U.S. Department of Transportation, and that is to 49CFR1.46N5, which further delegates this responsibility to the Commandant of the U.S. Coast Guard -- our boss in Washington.

Further, ocean dumping authority is derived from the Refuse Act, 33USC407, which prohibits any person disposing of garbage or trash within the territorial waters of the United States. For accounting purposes, ocean dumping materials are separated into two categories: a) materials which are required to be disposed of at the USEPA designated chemical and industrial waste disposal sites -- the 106-mile site; and b) materials which consist of all other materials.

SENATOR PALLONE: These are the industrial waste sites that Cindy Zipf mentioned?

LT. COMMANDER ELDRIDGE: Yes, the one at 106 would be the "a" -- materials have to be disposed of there. The "b" materials are all others -- sewage sludge, dredge spoils, and whatnot.

The U.S. Coast Guard mission performance standards set the surveillance. And these are in-house standards. We are not told how we have to surveil. We determine our own standards. The Commandant set our goals at 10% for category "b" activities, and 75% for category "a" activities. The U.S. Coast Guard Captain of the Port of New York currently surveils

dumps at the 106-mile industrial waste site for category "a" activities. Category "b" activities surveilled by Captain of the Port of New York include dumps at the 12-mile sludge site and the 106-mile sludge site; the acid dumps at the 20-mile dump site; and the various designated mud sites which are listed in 40CFR228.

All EPA-permitted dump activities that depart the Port of New York area are passively surveilled by the Captain of the Port of New York. Passive surveillance consists of the transporters calling into our office by telephone. They tell us the type of dump activity. The permits require this. And there are various times for the type of dump. They have to give us 24 hours for the toxic dump; two hours for the wood-burning operation, etc. The permits designate when they have to call in. They give us the times defining their dumping activity, the destination of that particular dumping activity, their departure point in the port, and the volume of the load to be disposed of. After this information is recorded by the people on my staff, we issue them a transit number as their authorization to proceed to the dump site. We make certain evaluations in the case of wood burning. We look at the wind factor, to make sure it is out of the west. For the sludge dumping, we look to make sure there are no more than two vessels in the 12-mile site at any given time. So, it is not an automatic transit number. There is some evaluation when we receive that information.

Upon returning to the port, the transporter is further required by the EPA permit to submit to us an overlay of the dumping vessel's dump zone track line, and a statement -- a written and signed statement -- that the permit conditions for the particular dump were met. These overlays and statements are forwarded to EPA, where they are analyzed for potential violations. We do note violations. I mean, the dump track lines are documents, and the statements are used to note violations.

The category "a" activities -- now, again, that is the toxic waste -- are surveilled by dedicating a ship rider to observe the dumps. We actually put a member of my staff, like Petty Officer Jaclidge, aboard the toxic waste vessel. He rides out to the 106-mile site to assure they are dumping in the designated zone.

SENATOR PALLONE: That is not true for the wood burning; that is not in this category.

LT. COMMANDER ELDRIDGE: That is correct. The toxic wastes are the only ones where we provide the ocean rider, mainly because we have no other way of surveiling, through radar or any other techniques. Our goal is 75% of all loads to be ridden by us. We don't ride 100%. The toxic waste loads run about one, a maximum of two, a month. So we find we can maintain that 75% standard pretty easily. It is not a personnel-intensive item. If we were required to ride the sludge dumps, when you have seven or eight dumps a day, we couldn't do it.

SENATOR PALLONE: You couldn't do it with the personnel.

LT. COMMANDER ELDRIDGE: Not at all.

Now, the ocean disposal surveillance system, which we refer to as ODSS, developed by the U.S. Coast Guard Research and Development Center in Groton, Connecticut, was placed on-line in 1986. The ODSS electronically tracks the vessels engaged in ocean dumping activities, and stores this information in a computer memory, which is located in my Duty Officer's watch standing space. This is manned 24 hours a day.

Briefly, this is accomplished by placing a remote electronic device on a vessel chosen to be tracked, which records the vessel's position, and then stores this information in memory, along with the position information. The sensors indicate when the vessel is actually dumping. Thus far, three of the 22 dump vessels have been outfitted with the ODSS sensing equipment.

It should be noted that this system is in the latter stages of development, and that the ultimate goal is to outfit all vessels involved in the ocean dumping activities with this equipment. For the record, 2582 sludge activities were recorded by the Captain of the Port of New York in the 1986 calendar year.

SENATOR PALLONE: Lieutenant, this surveillance system is theoretically going to be applied to all vessels?

LT. COMMANDER ELDRIDGE: Yes, Senator.

SENATOR PALLONE: That would be the sludge dumping, as well as the wood burning and everything?

LT. COMMANDER ELDRIDGE: Not the wood burning. The ODSS equipment was developed through a special grant by Congress. The money is earmarked to develop this system. It has been developed. Our Research and Development Center is confident that it is ready to go full on-line. Right now, it has been installed on three vessels, and we have been evaluating it for approximately six months.

SENATOR PALLONE: And these are the sludge vessels?

LT. COMMANDER ELDRIDGE: We have three sludge vessels, the goal being knowing that the 12-mile site will be closed. Out of our radar range, we cannot verify that these vessels are actually at the 106-mile dump. We certainly cannot afford to send a rider. Right now, we have seven or eight sludge dumps a day. Due to the increased transit time, we are going to have maybe 14 a day to keep up the same volume. I don't have 14 people to tie up on a two-day trip.

SENATOR PALLONE: So what you're saying is, your goal ultimately would be to have all of the vessels going to the 106 under this surveillance program?

LT. COMMANDER ELDRIDGE: Yes, Senator.

SENATOR PALLONE: When will that be completed? Oh, that is still experimental.

LT. COMMANDER ELDRIDGE: Our Research and Development people feel that the experiment has been tested and proven. We are still not ready to accept that fact. There are still some bugs that need to be worked out by the technicians.

SENATOR PALLONE: Is the money available, though, to do that for all of these sludge vessels?

LT. COMMANDER ELDRIDGE: No. That issue has not been clarified, and it is going to result in a letter from our office to our program managers in headquarters. We feel that probably the best way to have this equipment installed-- Four sensing units have been designed and built. Our Research and Development people feel that that product can be manufactured and placed on the shelf by some commercial resource. Potentially, the way to go is to, through the permitting process, require the vessel to have this equipment installed on board prior to allowing it to participate in the sludge dumping program.

SENATOR PALLONE: Okay, but what I'm saying is, right now it is being done experimentally.

LT. COMMANDER ELDRIDGE: On three vessels.

SENATOR PALLONE: On three vessels. Obviously, all of the vessels that are going to be outfitted between now and the end of '87 to do this 106-mile site dumping-- Can we get--

LT. COMMANDER ELDRIDGE: There is nothing planned yet on how the remaining 19 vessels will be outfitted with sensing devices.

SENATOR PALLONE: But what can we do, as a Committee, to try to get that going? Is that something that Congress would be involved in, or what, or is it just internally?

LT. COMMANDER ELDRIDGE: The U.S. Congress has-- We briefed the congressional team approximately two months ago on the progress of the system.

SENATOR PALLONE: So, in other words, we might want to write a letter, or send some kind of a statement to our New

Jersey delegation about the fact that we would like to see this done?

LT. COMMANDER ELDRIDGE: I am informing you of the system, and I am telling you where it is. We are working with the Federal side to make it happen. How we are going to go about requiring the equipment being placed on the vessel has not been decided yet.

SENATOR PALLONE: That might just be done by your permit process.

LT. COMMANDER ELDRIDGE: It could very well be.

SENATOR PALLONE: Then the costs would be borne by the sewage authorities, I guess.

LT. COMMANDER ELDRIDGE: The costs would be borne through the contract process.

SENATOR PALLONE: Through the contractors, yeah. Sounds good.

LT. COMMANDER ELDRIDGE: But the system is there. It needs some bugs worked out, but we think that probably will be a solution to a lot of the problems, in that the device can actually tell when a vessel is dumping. It plots its position so we know if it is on station.

Ocean burning is not defined by the NPRSA. However, due to the fact that ocean burning activities are regulated in 40CFR220, the Captain of the Port of New York has customarily recorded all such activities. The USEPA issues the permit for the wood-burning activity. The permit requires the transporter to contact the Captain of the Port, my staff, for a transit number prior to his departure, similar to the sludge. It is a two-hour advance notice.

Further, the transporter is required to radio Coast Guard Sandy Hook to inform them when they are on scene and commencing their burning operation. At the conclusion of the burning operation -- which can take several days -- the transporter again radios Sandy Hook to inform them that they

are departing the burn site. A final radio call is made to Sandy Hook by the transporter upon arriving at Old Orchard Shoals at the entrance to Raritan Bay, to certify that the load is completely out, and to obtain permission to enter the upper bay, or the Arthur Kill Waterway.

Burn barges in the process of being loaded in the port are surveilled for proper loading by Coast Guard vessels on routine harbor patrols, but no formal pre-inspection had been conducted prior to departure. Mounting public interest and a specific request from the USEPA in August, 1986, triggered a higher level surveillance activity by Coast Guard Captain of the Port of New York personnel. Of the six burning activities recorded during this time frame, since August until now -- the seventh is under way today -- there have been two pre-departure inspections, one in-transit inspection, and one post-arrival inspection conducted. This is in addition to our daily harbor patrols that go by the loading operation all the time. They keep us updated on the progress of the loading of a barge. These barges were either boarded or photographed.

The U.S. Army Corps of Engineers has also done some in-transit surveillance as well. Based on these surveillance activities, the Captain of the Port of New York has recommended that some changes be made to future permits. As related earlier by Mr. Daggett, the majority of those recommendations -- or the changes to permit -- are a result of our recommendations, such as a 24-hour advance notice before departure, daylight transits. Those recommendations resulted from our stepped up surveillance activities of the six operations that went on during the fall.

I would like to thank you, Mr. Chairman. I would be pleased to answer any questions you or members of the Special Committee may wish to ask.

SENATOR PALLONE: Well, thank you. This has been very informative, too. Let me just ask you-- I guess it is a

little hard for me to digest exactly, you know, all of the details, but just in general, do you feel-- Well, I guess I will concentrate on the wood burning. You said that new suggestions are being made now and that there are new recommendations that have been put into place. You know, we really have had a tremendous-- I don't know about tremendous, but we have had a lot of complaints about floating debris, half-charred wood, etc., which makes me believe there is some illegal activity going on. Either it has fallen off on the way out there or it is not being burned completely and is drifting away. A lot of it is coming back to shore. We had a couple of beaches in South Monmouth that were closed last summer because of charred wood coming up on shore.

Obviously, you feel that what is being done now, or what is going to be done pursuant to these new regulations should prevent that. Is there any reason why there might be a crack in the system?

LT. COMMANDER ELDRIDGE: Let me, real quickly, give you a history. We did not consider wood burning as an ocean dumping activity. It is not intended to dump anything into the sea. It is not like the sewage sludge or the toxic waste. So, we were not monitoring or surveiling it under our current surveillance standards. We were monitoring the wood-burning operation from a port safety standpoint, in that my boss, and myself, did not want a burning barge entering the Arthur Kill where there are several oil facilities, or the upper bay, smoking and flaming. So, basically that is where we were originally coming from.

Now, due to the situation in June, where we had that terrible problem with the debris, that, in my short tenure at Captain of the Port of New York, was the first time where we had a problem like that -- that one situation. That resulted in a stepped up surveillance at the request of the U.S. Army Corps of Engineers and the USEPA from the Coast Guard. Yes, we

have some problems. We have problems with debris in New York Harbor. You saw some pictures that you just don't believe. Boaters are aware of that.

SENATOR PALLONE: That's what Weeks told us. Weeks Stevadoring told me at the hearing when I asked the same question I just asked you-- They said, "Oh, that debris is falling off the piers and washing down to Spring Lake," which I thought was ridiculous.

LT. COMMANDER ELDRIDGE: That was our initial impression when we first got a phone call of debris in the water. The flushing action of the Hudson River and the upper bay is such that from our oil spill activity, etc., it just flushes out from the harbor. And when you hear reports of debris, it is that debris that got away from the Hayward and the other Army Corps of Engineers' boat in the harbor.

SENATOR PALLONE: But it just seemed that that was impossible, because--

LT. COMMANDER ELDRIDGE: That was not the case; at least we suspect that was not the case in June, when we had all that increased debris. We feel the action taken was adequate on the part of the Coast Guard. I mean, the maritime community was warned through a broadcast to be aware that there was debris out there. But it was not our responsibility to clean it up. It's a definite problem the State had to deal with; the local community had to deal with. But, from the surveillance standpoint, the new recommendations that we feel we have made for the permitting process-- Mr. Daggett has confirmed here in his statement this afternoon that those will be incorporated into the permit. Just the fact that there will be daylight transits, so that anything that falls off-- The required chase boat will be able to remove that out of the water. That is what the boat will be there for.

SENATOR PALLONE: That should cut it down considerably, that they can't do it at night.

LT. COMMANDER ELDRIDGE: It should eliminate it.

SENATOR PALLONE: Yeah.

LT. COMMANDER ELDRIDGE: In addition to that, we are looking a lot closer at the loading of the barge itself. Both Petty Officer Jaclidge and Lt. Reilly have been on the scene of almost all six of those vessels at any point in their loading process, and could see that maybe this one was not loaded properly and wood was going to fall off. There is not a real good technology on how to load a barge to prevent everything from falling off, so hopefully the boat on scene will take care of that. The chase boat is not there to verify that something fell in the water. The chase boat is there to pick it up, because our experience now with those six surveillance activities in the fall and early winter, have proven that, yes, stuff can get off, but not to the extent that was reported in June. There was definitely a problem there. But the way they are loaded, the barge is loaded to a point where it is going to fall off probably, and that is why the chase boat is there, not to the extent, though, that it happened in June.

SENATOR PALLONE: Thanks a lot. What about vessel source pollution? Do you get involved in that?

LT. COMMANDER ELDRIDGE: Yes.

SENATOR PALLONE: Do you regulate that?

LT. COMMANDER ELDRIDGE: Yes. Right now, at the international level, through the International Maritime Organization, the Coast Guard is the lead agency for the U.S. in a majority of the work over there. When I say over there I mean London -- Marpole 7378, which is the convention that addresses maritime pollution. There are various annexes, one through five. We have implemented annexes one through two, which deal with oily waste reception and chemical waste reception, so ships will not dump them at sea. They have to put them in port. There are certain monitoring devices, etc., etc. Those annexes have been ratified. Currently annex five,

which deals with pollution from ships, in particular plastics, is of concern. Currently, or before Congress-- My boss in headquarters, Rear Admiral Kime (phonetic spelling) has testified before Congress regarding that. Basically, it takes 50% of the world shipping tonnage to approve that treaty to have it come into force. The United States represents about 4%. The United States has not ratified that yet, although it won't push us over the 50% point if we do ratify. The U.S. feeling is that some other countries will follow suit, and we will reach that 50 percentile.

SENATOR PALLONE: What does that do again -- this annex five?

LT. COMMANDER ELDRIDGE: Let me just read-- The bottom line is: "Twenty-five nautical miles for (indiscernible), lining, and packing materials which will float." You have to be 25 nautical miles from land before you can throw that off the ship. "Twelve nautical miles for food waste and other garbage, including paper products, rags, glass, metal, bottles, crockery, and similar refuse that will either degrade or sink." There are three exceptions to this discharge. Those exceptions are: disposal for the purpose of securing the safety of the ship and those on board, or saving life at sea; escape resulting from damage to a ship or its equipment; and accidental loss of synthetic fishing nets or synthetic material incidental to the repair of such nets. Also, "The disposal of any plastic product, which includes synthetic ropes, synthetic fishing nets, and plastic garbage bags, will be prohibited completely." That is basically it.

SENATOR PALLONE: Is there any reason why we haven't ratified this yet?

LT. COMMANDER ELDRIDGE: It is before Congress now. The Coast Guard has negotiated that as part of the negotiating process at the International Maritime Organization, and has been a supporter of that annex.

SENATOR PALLONE: Is it just going through normal procedures?

LT. COMMANDER ELDRIDGE: Yes. It is before Congress now.

SENATOR PALLONE: Oh, okay, so it hasn't actually been delayed, in terms of the annexation of it?

LT. COMMANDER ELDRIDGE: No. Our Admiral appeared before Congress August of '86, when he made his statement.

SENATOR PALLONE: What about recreational vessels on our coast? Do you get involved in that at all, in terms of vessel source pollution?

LT. COMMANDER ELDRIDGE: It is pretty difficult to enforce -- very difficult to enforce. We have the authority to enforce within our territorial seas, three miles inward, for the disposal of garbage products.

SENATOR PALLONE: Are those State regulations or Federal regulations?

LT. COMMANDER ELDRIDGE: Federal.

SENATOR PALLONE: Federal regulations.

MR. CANTOR: We have State regulations, also.

SENATOR PALLONE: Okay. Enforcement is the key then? It is not that the regulations or the legislation isn't in place?

LT. COMMANDER ELDRIDGE: No, it's in place. It is just the enforcement.

SENATOR PALLONE: Does our State marine police get involved as well?

LT. COMMANDER ELDRIDGE: I assume they do.

SENATOR PALLONE: To a more limited extent.

LT. COMMANDER ELDRIDGE: Your State marine police pretty much restrict their operations to Barnegat Bay.

MR. CANTOR: I called the State marine police and asked if they got involved in enforcement, and they said, "What?"

SENATOR PALLONE: Barnegat Bay.

LT. COMMANDER ELDRIDGE: Mostly Barnegat Bay. You have a few who are involved with the Liberty Island operation.

SENATOR PALLONE: Lieutenant, if I may ask you, do you perceive-- You know, we spent a lot of time at the last hearing we had talking about plastics, floatables, disposables, and what a problem they are. Of course, we zeroed in on Fresh Kills Landfill as the source. Do you feel that recreational vehicles, or even ocean-going vessels, are major contributors to the floatables problem here at the shore? Maybe you're not an expert, but who else am I going to ask?

LT. COMMANDER ELDRIDGE: From being a sailor, possibly-- I would say that plastics being non-biodegradable, they are probably going to be around forever. If it gets in the water, it is probably going to end up on the beach, so it is a problem. I don't think the volume is there.

SENATOR PALLONE: The volume is probably greater from Fresh Kills as the source of origin on that.

LT. COMMANDER ELDRIDGE: If I were to guess, probably your cruise ships, if you are talking about volume. Your regular cargo ships will only carry a crew of 29 or 30 people for an extremely large vessel. They do not generate that much garbage. They can probably compact it and hold it aboard. Your cruise ships are the ones that will run into problems, because they generate a lot more garbage.

SENATOR PALLONE: That is not the individuals who are taking the cruise throwing it overboard?

LT. COMMANDER ELDRIDGE: No, the crew.

SENATOR PALLONE: The crew.

LT. COMMANDER ELDRIDGE: Right. But your recreational boater is as guilty as anyone of throwing his six-pack plastic retaining ring overboard.

SENATOR PALLONE: I would imagine it is more from the recreational boaters than it is from the ocean-going vessels.

LT. COMMANDER ELDRIDGE: In your inner waters, definitely. In your inner waters, there is not enough large vessel traffic to contribute significantly, at least compared to the recreational crowd you would see in your concentrated areas here on the New Jersey shoreline. The majority of it is probably what is coming from your recreational traffic.

SENATOR PALLONE: All right. Thank you very much. I'm sorry you had to wait all day. I keep saying, "I'm sorry." I guess no one believes it any more, but I am. Thanks again.

LT. COMMANDER ELDRIDGE: You're welcome.

SENATOR PALLONE: That concludes our hearing. Do you want to applaud? I should mention that we also have, as part of the record, a statement from the Monmouth County Friends of Clearwater, Inc. They had to leave. They are the only ones I wasn't able to convince to stay.

I want to thank the hearing reporter from OLS for sitting here all this time and recording all of this. You probably didn't expect to be here this long, neither did I.

I think the hearing was very worthwhile. I thank everyone for coming.

(HEARING CONCLUDED)

APPENDIX



SOS
SAVE
OUR
SHORES

Save Our Shores, 2040 Sixth Avenue, Newark, N.J. 07102

1987

NEW JERSEY EPIDEMIOLOGICAL AND WATER ASSAY STUDY
TO EVALUATE THE HEALTH RISKS TO HUMANS WHO HAVE HAD OCEAN CONTACT

Study to take place Summer, 1987

(The following is a suggested preliminary skeleton format by Save Our Shores). Presented to the New Jersey Medical Society for their review December 17, 1986

Copies provided to: New Jersey Department of Environmental Protection
New Jersey Department of Health

The following is the result of extensive discussions with public health experts from Woodhole, Science Applications of Rhode Island, and Dr. Robert Anderson, Ph.D.

SOS SAVE OUR SHORES

Jersey Shore Plaza, 2040 Sixth Avenue, Neptune City, N.J. 07753

(201) 775-2090

AGENDA

GOALS

- I. S.O.S. will present and provide the two hundred (200) representative cases of illness selected from a larger number of cases received.
- II. Demographic correlation of illnesses with regard to their geographical area.
- III. Based on this preliminary data, confirm the need for a medically valid study to document the actual health risks of ocean pollution.
- IV. Present and provide to this meeting a suggested format protocol to provide for such a study.
 - a) Epidemiological survey perimeters.
 - b) Control group.
 - c) Time Frame
 - i) Collection of data - May 21, 1987 - September 10, 1987
 - ii) Correlation of results and summation of conclusions - September 11, 1987 - October 15, 1987
 - iii) Presentation and public release of findings - December 17, 1987
 - d) Selection of study participants.
 - i) Epidemiology
 - ii) Surveyors
 - iii) Water analysis
 - iv) Statistical analysis
- V. Finding and Study Supervisor

SOS SAVE OUR SHORES

One Shore Plaza, 2040 Sixth Avenue, Neptune City, NJ 07753 201-775-2090

OBJECTIVE AND PURPOSE: To produce a valid, timely and meaningful understanding of the health risks to humans who have had contact with the ocean. The results of this study to be produced by December, 1987. These results will be in simple terms. The recommended terms will be in percentage form.

GOAL: The goals of this study should be designed around answering the following three (3) questions:

- 1) What are the chances of becoming ill after having contact with the ocean?

(Greater than 1% or higher)
(Less than 1%)

- 2) How severely ill is one likely to become after having contact with the ocean?

(Expressed in terms of medical costs and/or time lost from work.)

- 3) How severely polluted or contaminated is the ocean in terms of human health risks?

SOS SAVE OUR SHORES

Area Office P.O. Box 2240 5th Avenue Medicine Creek, WY 82433

202575-2290

I. POPULATIONS TO BE STUDIED (Three)

A) People who have been exposed to the ocean water;

1) Recreational swimmers

- a) Minimal contact) As determined by degree
- b) Moderate contact) of submergence and
- c) Extended contact) frequency of contact.

2) Surfers and Divers

3) Lifeguards

4) Sustenance Fisherman

B) People who have been to the beach and coastal areas but have had contact only with fresh water pools;

- a) Minimal contact) As determined by degree
- b) Moderate contact) of submergence and
- c) Extended contact) frequency of contact.

C) People who have spent similar time at the beach, but have refrained from actually getting wet;

- a) Minimal contact) Time on the beach or at
- b) Moderate contact) coast facilities.
- c) Extended contact)

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201 776-2090

II. ILLNESSES TO BE STUDIED: Those diseases that are medically accepted to be water related.

A) Transmitted by contact;

- 1) Contact Dermatitis (allergic reactions)
- 2) Chemical skin irritations and mucous membrane irritations
- 3) Infections (bacterial and/or viral):
 - a) Otitis medra (Ear)
 - b) Conjunctivitis (Eye)
 - c) Dermatitis (Skin)
 - d) Gastro intestinal (Swallowing ocean water)
 - e) Associated with blood to ocean water contact:
 - i) Exposure of open cuts, skin abrasions and/or puncture wounds to ocean water.
 - 1) Cellulitis
 - 2) Deep festering wound infections.
 - 3) Joint infections.
 - 4) Septicemia (Blood poisoning)
 - 5) Hepatitis
- f) Pulmonary - lung and upper respiratory tract infection (Ranges from colds to pneumonia)
- g) Urinary tract infections
- h) Vaginal infections
- i) Miscellaneous

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Save Our Shores, 2040 Sixth Avenue, Neptune City, NJ 07753

201-776-1090

III. DEMOGRAPHIC CORRELATION: Target times and target locations.

A) Weather conditions (winds, temperature, sun)

- 1) Generally on dates studied.
- 2) Specific at sites studied. (target beaches)

B) Tidal conditions-(Peak hours of sampling tide going in and out)

C) Visual-(Aerial photos of beaches studied)

D) Water Samples

- 1) Taken at target (peak) times and at target locations.
- 2) Surface level samples at swimming locations.
- 3) Swimming depths at swimming locations.

E) Analysis of Water Samples at laboratory.

- 1) Bacterial - (Cultures) Selected human pathogens. (Colony count)
- 2) Viral Contamination -
 - a) Gains Test
 - b) Immunological studies
 - c) Animal inoculations
- 3) Chemical Irritants chemical analysis.
 - a) Heavy metal
 - b) Organic debris
 - c) Particulate matter
 - d) Large fragments

F) Visual-(Display samples)

G) Temperatures-(Of samples when taken)

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201-775-2090

IV. VARIABLES TO BE CONTROLLED:

A) Scope of Study -

1) Health Risk of two (2) factors:

a) Incidence of Illness (Frequency, type of exposure)

b) Severity of Illness -

Medical Costs (Mild - Treated at home - One doctor visit/No doctor visit
(Moderate - Two doctor visits -- Emergency Room visit.
(Severe - Hospitalization, Extended, Permanent, Death.

2) Ideally (All swimmers and local fish eaters against control)
-- unrealistic.

(All diseases long and short term water related)
-- Real universe select statistically relevant number.

Ex. - 20,000 Entries Planned
10,000 Non-Contact controls
10,000 Ocean contact

B) Limitation of Study -

1) Between May 21, 1987 and September 10, 1987 there are only twenty (20) weekends. Rain days will be excluded from study -- approximately 1/3 rain. Need not study all. Choose twenty (20) days = 15 weekend days and 5 week days.

2) The limitations and scope of the study: This project may not be as enormous an undertaking as it would first appear.

C) Overseeing of Study

1) Physicians of Save Our Shores and the New Jersey Medical Society to appoint a Project Overseer.

D) Study supervision and management -

- 1) New Jersey Department of Health
New Jersey Department of Environmental Protection

**Both to appoint a Project Supervisor.

E) Funding

1) Sources:

- a) Department of Environmental Protection
- b) Department of Health
- c) Save Our Shores Fund Raising Campaign
- d) Other pollution organizations.
- e) Governor's Office
- f) Legislature
- g) Environmental Protection Agency
- h) Penalties paid to State by Companies fined for polluting
- i) Corporate contributions
- j) Municipalities and Townships along the coast

- 2) Amount needed to conduct the study to be determined during Development Phase of study.

F) Budgeting & Allocation of Resources:

**Strictly controlled by Project Overseer and Project Supervisor.

SOS SAVE OUR SHORES

Level: Shore Plaza, 2040 8th Avenue, Neptune City, NJ 07753 (201) 765-1090

- V. TIME FRAMES: Results and conclusions to be released by December 17, 1987.
- A) PLANNING PHASE - Finalization of protocol and organization, refinement of factors, determination of sample size, Division of Labor, etc.
January 1, 1987 ---- May 20, 1987
- B) DATA COLLECTION PHASE - Collection of data. (Refining)
May 21, 1987 ---- September 10, 1987
- C) DATA INTEGRATION PHASE - Entering, compiling, correlating, refining, analyzing reviewing data and graphing data.
September 11, 1987 ---- October 15, 1987
- D) RESULTS REVIEW PHASE - Formatting results, summarizing and describing conclusions.
October 16, 1987 ---- November 1, 1987
- E) RELEASE PHASE -
Publishing results to the Scientific Community.
November 15, 1987
Releasing results and conclusions to public.
December 17, 1987

SOS SAVE OUR SHORES

Free Brochure Form 2040 Sixth Avenue, Neptune City, NJ 07758

(201) 76-2090

VI. EXPERTISE NEEDED

A) Scientific personnel

- 1) Epidemiologists
- 2) Statisticians
- 3) Actuary
- 4) Chemists
- 5) Computer expertise and hardware accessories
- 6) Data entry
- 7) Oceanographer

B) Scientific Facility

- 1) Laboratory
 - a) Bacterial
 - b) Viral
 - c) Chemical
- 2) Computer
- 3) Office Location
- 4) Boats
- 5) Helicopter

C) Labor Pools Available

- 1) Data Collection effort
 - a) Lifeguards for head counts
 - b) Aerial photos for head counts
 - c) Tumor Registry Personnel and Admitting Offices at 11 coastal hospitals and hospitals around the state, Penna and New Jersey.
 - d) College students and High School students.
 - e) Volunteers

D) Data Sources Available-(Survey)

- 1) Beach club memberships, Pool memberships and Guests Lists.
- 2) Beach badges - distilled easily identified target population.
- 3) Surfing club membership.
- 4) County Boat and Fishing organization.

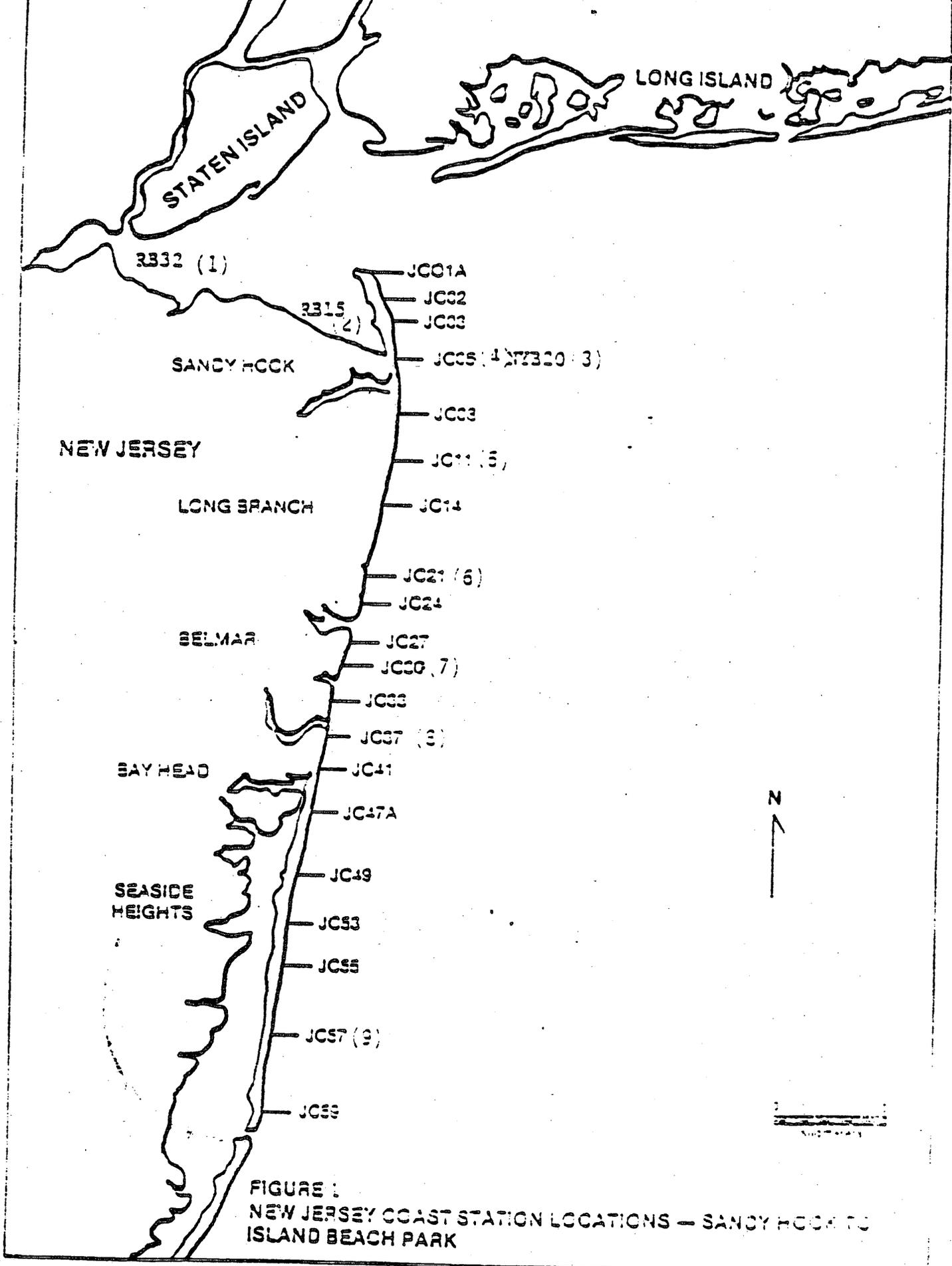
E) Target Sources to be included in surgey.

Critical

- 1) Emergency Room Log Books
 - a) Emergency Room Survey - doctors, nurses, Admitting Clerks, Chart Review.
- 2) First Aide Stations and life guards
- 3) Coastal Physicians.
- 4) Medical Society lists -- N.Y., N.J., Penna.
- 5) Coastal Hotel & Motel patronage lists/lobby roster.
- 6) Pool supplies stores.

SUMMARY OF
PHYTOPLANKTON BLOOMS
and RELATED EVENTS
in NEW JERSEY COASTAL WATERS
SUMMER OF 1985

New Jersey Department of
Environmental Protection
Division of Water Resources
Bureau of Monitoring &
Data Management
Biological Services Unit



Numbers in parentheses indicate stations where phytoplankton samples are taken.

Table 1. Succession of major phytoplankton species found in the 1985 survey. Dominance (+) was attained when cell densities of a species at some point exceeded 10^7 /ml (10^7 for Nannochloris sp.); sub-dominance was noted when cell counts approached but did not exceed 10^7 /ml. Blooms (*) became apparent when counts greater than 10^7 /ml (10^5 for Nannochloris) produced visible water coloration. Sampling periods are as follows: a. May 26; b. June 6,12; c. June 20-July 9; d. July 18-August 14; e. August 29-September 12. Sampling locations are designated as: 1. Raritan-Sandy Hook Bay; 2. Sandy Hook-Monmouth Beach; 3. Long Branch-Sea Girt; 4. Manasquan-Island Beach; 5. Long Beach Island-Brigantine; 6. Atlantic City-Ocean City; 7. Strathmere-Cape May.

SAMPLING LOCATION²

Date	Species	1	2	3	4	5	6	7	8
July									
5	<u>I. gravida</u>			o	+	o	o	+	o
	<u>Euclena / Eutrophia</u> sp.		+	o					
	<u>Rhodomonas</u> sp.	o	+	o	o	+			
	<u>Nannochloris</u> sp.	+	*	+	+	o	o	+	+
12	<u>S. costatum</u>					+	*	+	+
	<u>I. gravida</u>								
	<u>Chaetoceros</u> sp.						+	o	
	<u>Nitzschia seriata</u>			+	+	o			
	<u>Chlorella</u> sp.	o	+		o				
	<u>Nannochloris</u> sp.	+	*	o	o	o			
17	<u>S. costatum</u>			+	+	+	+		
	<u>Chaetoceros</u> sp.		+					+	
	<u>Calycomonas gracilis</u>	o	+		+				
	<u>Chroocomonas / Rhodomonas</u> sp.	o	o	o	o	o	o	o	o
	<u>Nannochloris</u> sp.	+	o	o	o	o	o	o	o
August									
1	<u>S. costatum</u>		o		+	+	+		
	<u>S. luteus</u>				o	o	o		
	<u>Chlorella</u> sp.		+		o	o	o	o	o
	<u>Nannochloris</u> sp.		+		+	+	o	o	o
10	<u>S. costatum</u>			*	*	*	+	*	*
	<u>I. gravida</u>	+	+	+	+	+			
	<u>C. galapica</u>		+	+	o	o			
	<u>Chaetoceros</u> sp.		+						
	<u>Prorocentrum micans</u>								
	<u>Paridinium arctoides</u>								
	<u>Synedra</u> sp.								
	<u>Nannochloris</u> sp.	+	+	o	+	+	+	+	+

NATIONAL SCIENCE FOUNDATION
INDUSTRY/UNIVERSITY COOPERATIVE CENTER FOR
RESEARCH IN HAZARDOUS AND TOXIC SUBSTANCES

SPONSOR COMPANIES
as of
SEPTEMBER 1, 1986

Allied-Signal, Inc
Morristown, New Jersey

American Cyanamid Co.
Wayne, New Jersey

Bristol-Myers Products
Hillside, New Jersey

Combustion Engineering
Florham Park, New Jersey

Exxon Research & Engineering Co.
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Enviroresponse, Inc.
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Light Company
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New York, New York

Public Service Electric &
Gas Research Corp.
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Linden, New Jersey

Stone & Webster Engineering
Corporation
Cherry Hill, New Jersey

S & W Waste Co.
South Kearny, New Jersey

United States Army
Aberdeen Proving Ground,
Maryland

PHYSICAL TREATMENT

Division Director, Paul Cherenisinoff

<u>PROJECT</u>	<u>TITLE</u>
PHYS-1	Adsorption and In-Situ Fixation of Hazardous Waste
PHYS-2	Sludge Dewatering
PHYS-3	Stabilization Methods for Rendering Wastes Less Hazardous for Long-Term Storage
PHYS-4	Removal/Desorption of Hazardous or Toxic Organic Compounds from Soil Matrices

HEALTH EFFECTS

Division Directors, Mohamed Abdel-Rahman, Michael Gochfeld, Robert Snyder

<u>PROJECT</u>	<u>TITLE</u>
HLTH-1	Strategies for Studying the Impact of Multichemical Exposure to Hazardous Chemicals: Implications for Health Risk Assessment
HLTH-2	Development of Medical Protocol to Evaluate Toxic Exposures
HLTH-3	Pharmacokinetics of Pollutants Adsorbed to Soil
HLTH-4	Health Effects of Chemical Toxic Waste Disposal Site

4

PUBLIC POLICY

Division Director, Michael Greenberg

<u>PROJECT</u>	<u>TITLE</u>
PUBL-1	Design and Implementation of a Program of Continuing Education for Print and Broadcast Journalists on Risk Assessment
PUBL-2	Improving Public Participation in the Permitting of Hazardous Waste Storage, Treatment and Disposal Facilities: A National Survey and Case Studies
PUBL-3	Research and Education Program on Environmental Risk Communication for Technical, Corporate, Regulatory and Community News Sources
PUBL-4	Industry Responses to Thwarted Siting: Inference by Analogy
PUBL-5	Emergency Response Planning for Off-Site Releases of Hazardous Substances: A State-of-the-Art Review

Symposium

An Overview of New Jersey Coastal Water Quality

New Jersey Academy of Sciences Meeting

Stockton, New Jersey

April 5, 1986

Organizer: G. Fred Lee, Ph.D., P. E.
Distinguished Professor and Coordinator for the New Jersey Marine Sciences
Consortium Estuarine and Marine Water Quality Management Program
Department of Civil and Environmental Engineering
New Jersey Institute of Technology
Newark, New Jersey
201-761-0977

John Tiedemann, New Jersey Sea Grant Extension Service, Marine Extension
Agent/Recreation

The Importance of Water Quality in Developing New Jersey's
Estuarine and Marine Resources

Dr. R. Anne Jones, New Jersey Institute of Technology, Department of Civil &
Environmental Engineering

Sanitary Quality of New Jersey Coastal Waters

Andrew Draxler and John P. O'Reilly, National Marine Fisheries Service, Sandy
Hook Laboratory, Highlands, NJ - tentative

Development of Hypoxia in the New York Bight

~~Dr. Fred Lee, New Jersey Institute of Technology, Department of Civil and
Environmental Engineering~~

~~Dr. Fred Lee, New Jersey Institute of Technology, Department of Civil and
Environmental Engineering~~

~~Dr. Fred Lee, New Jersey Institute of Technology, Department of Civil and
Environmental Engineering~~

Toxic Chemicals in New Jersey Coastal Waters and Aquatic Organisms

Dr. Michael McCormick, Montclair State College, Department of Biology

Benthic Organisms in New Jersey Coastal Waters and Factors
Influencing their Distribution

Dr. G. Fred Lee, New Jersey Institute of Technology, Department of Civil and
Environmental Engineering

An Overview of New Jersey Coastal Water Quality Problems and Possible
Remedial Measures

The Monmouth County Department of Health

ENVIRONMENTAL LABORATORY

J. STATE CERTIFIED
LABORATORY #13417

ESTER W. ARGOWSKY, M.P.H.
LABORATORY MANAGER

ROUTE 3 & CAMPBELL GOLF
P. O. BOX 1255
FREEHOLD, N. J.
(201) 431-7456

Coastal Water Monitoring Program

Date: July 14, 1986

Station Label	Bottle Number	Site	Fecal Col.	Collection Time
030	300	Belmar - Route 72 Bridge	280	
031	310	Belmar - 1 St. Bathing Beach	1500	
032	320	Spring Lake - Ludlow Avenue	31	
033	330	Sea View - Beacon Boulevard	49	
034	340	Manasquan - Third Avenue	> 2400	
035	350	Manasquan - Second Avenue	> 2400	
036	360	Manasquan - East Main Street	17	
037	370	Neptune City Wyron and Wilson Avenue	22	3
038	380	Neptune Township Riverside and Lincoln Place	11	
039	390	Long Branch - Third Street	310	
040	400	Edison - Plaza Court	11	
041	410	Allenhurst - Cedar Avenue	33	
042	420	Belmar - 1st Street		
043	430	Belmar - 1st Street		

JUL 23 1986

OTHER USE

The Monmouth County Department of Health ENVIRONMENTAL LABORATORY

STATE CERTIFIED
LABORATORY #13347

STEVE W. JARGOWSKY M.P.H.
LABORATORY MANAGER

MAYOR & COUNCIL

ROUTE 9 & CAMPBELL COURT
P. O. BOX 1255
FREEHOLD, N. J.
(609) 431-7155

JUL 25 1986

Coastal Water Monitoring Program

Date: July 21, 1986

Station Number	Boatle Number	Site	Facial Col.	Collection Date
001	100	Palmer - Route 71 Bridge	30	
002	100	Belmar - 1 St. Barnabas Beach	30	
003	100	Spring Lake - Ludlow Avenue	20	
004	100	Sea Girt - Beacon Boulevard	10	
005	100	Manasquan - Third Avenue	10	
006	100	Manasquan - Second Avenue	170	
007	100	Manasquan - East Main Street	3	
008	100	Neptune City Worton and Wilson Avenue	> 2400	
009	100	Neptune Township Reverstone and Clanson Place	20	
010	100	Long Branch - Laird Street	170	
011	100	Elberon - Plaza Court	3	
012	100	Allenhurst - Cedar Avenue	240	
013	100	Beach Avenue - Elgmont Drive	100	
014	100	Long Beach - Elgmont Drive	100	

MONMOUTH COUNTY DEPARTMENT OF HEALTH
 COASTAL MONITORING PROGRAM
 RESAMPLES

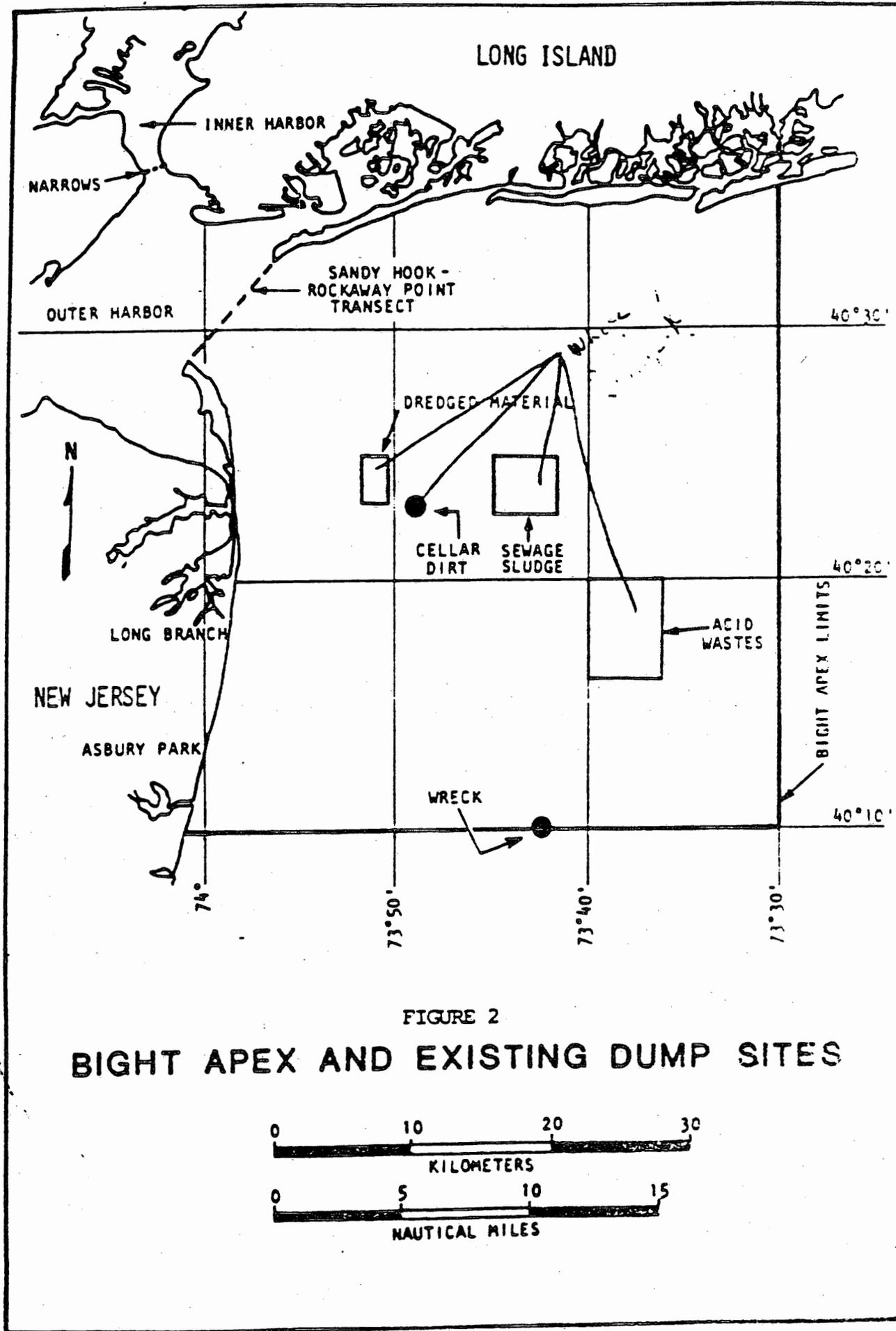
<u>DATE</u>	<u>SAMPLE NUMBER</u>	<u>SITE</u>	<u>FECAL COLIFORM</u>
7/15/86	36-1319	Memorial Park - Neptune Myron & Wilson	3
7/15/86	36-1320	Third Ave. - Manasquan Fisherman's Cove	10
7/15/86	36-1335	Echo Lake - Howell In-Take flow	540
7/15/86	36-1336	Echo Lake - Howell Bathing Beach	150
7/15/86	36-1337	Echo Lake - Howell Out-Take flow	350
7/15/86	36-1338	Keansburg-50 yds. west of Beachway & Ocean View	45
7/15/86	36-1339	Keansburg - Beachway & Ocean View	120
7/15/86	36-1340	Keansburg-50 yds. east of Beachway & Ocean View	45
7/16/86	86-1842	Kids World - Long Branch Chelsea Avenue	540
7/16/86	36-1343	Laird Street Long Branch	45
7/16/86	36-1844	South Broadway Long Branch	3
7/16/86	36-1357	10th Avenue Belmar	5
7/16/86	36-1365	10th Avenue Belmar	5
7/16/86	36-1366	11th Avenue Belmar	5
7/16/86	36-1367	15th Avenue Belmar	17
7/16/86	36-1368	10th Avenue Belmar	5
7/17/86	36-1369	Allenhurst Beach Club Allenhurst	2

that will be in the best interests of the general population?

Congressman James Howard (D, New Jersey) is working to solve the delamni of sewage disposal and ocean dumping. His Clean Water Act would move the dumping limit from its present limit of 12 miles⁰ to 106 miles off of the coast. This would be a temporary measure, with the eventual goal being the elimination of Ocean dumping. The continental shelf is 106 miles off of the coast, so when garbage is dumped, at least it would sink to the bottom and not wash up on our beaches. This is at least a step in the right direction. Howard is also fighting for federal monies to assist in the building and upgrading of sewage treatment plants, so that in the future they will have the capacity to handle whatever is required.

In the final analysis, there is indeed a problem that must be taken care of before it is too late. The EPA is accountable to congress, so the final conflict comes down to Business v. Government v. Enviornment. Unfortunately, as usual, enviornmrnt comes last. Unless something is done, and the "powers; that be" recognize the interrelatedness of these things, it just might be too late. Taking the risk of sounding like a flaming liberal enviornmentalists, we are only given one world, but if used responsibly, it should be more than enough for everyone - only time will tell.

*see attached diagram for present dumping sites



Human Pathogenic Viruses at Sewage Sludge Disposal Sites in the Middle Atlantic Region

SAGAR M. GOYAL,^{1*} WILLARD N. ADAMS,² MARRIA L. O'MALLEY,³ AND DONALD W. LEAR¹

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Human enteric viruses were detected in samples of water, crabs, and bottom sediments obtained from two sewage sludge disposal sites in the Atlantic Ocean. Viruses were isolated from sediments 17 months after the cessation of sludge dumping. These findings indicate that, under natural conditions, viruses can survive for a long period of time in the marine environment and that they may present potential public health problems to humans using these resources for food and recreation. The isolation of viruses in the absence of fecal indicator bacteria reinforces previous observations on the inadequacy of these bacteria for predicting the virological quality of water and shellfish.

Human enteric viruses have repeatedly been shown to be present in domestic wastewater, often in large numbers. As many as 110 different virus types may be present in sewage and may not be completely removed by conventional sewage treatment processes, including chlorination (23). In an activated-sludge sewage treatment plant, removal of viruses occurs by adsorption of viruses to solids, which ultimately settle out in the form of sludge flocs. Thus, the concentration of viruses in sludge may be several orders of magnitude higher than in sewage or effluent or both, and the discharge of sludge in coastal waters is, therefore, potentially hazardous to human health. In fact, several outbreaks of infectious hepatitis and viral gastroenteritis have been traced to sewage contamination of recreational water and shellfish (3, 7, 14).

Coastal marine waters are a valuable recreation and food resource but have historically been used as a convenient receptacle for human waste, either by ocean outfalls or barge disposal. Because of the population explosion and industrial growth, these areas are now increasingly susceptible to pollution. Enormous amounts of sewage sludge generated by densely populated coastal towns are often barged several miles away from the coast and discharged in deep midshelf waters. A large amount of sewage sludge has been dumped at various designated sites around the world. The present study concerns the occurrence and survival of human enteric viruses at two sewage sludge disposal sites in the Atlantic Ocean.

MATERIALS AND METHODS

Dump sites. Two sewage sludge disposal sites located in the Atlantic Ocean were studied. (i) The New York Bight dump site (NYB), also known as the 12-mi. (19.2-km) site, is a coastal oceanic area at the apex of New Jersey and Long Island; it is located at 40°25'04" N, 73°44'53" W. The sludge dumping area is ca. 30 m deep and occupies 100 km². Sewage wastes are disposed of at this dumping ground by several cities in New York and New Jersey and are either in a raw or treated state or in a digested form. An estimated 3.5 × 10⁷ tons (3.15 × 10⁶ t) of wastes are discharged every year in this area (27). (ii) The Philadelphia sewage sludge dump site (PDS) is a 172-km² area located 70 km east of Ocean City, Md., at ca. 38°23' N, 74°15' W; it lies over the continental

shelf in waters 40 to 60 m deep. Sewage sludge from Philadelphia, Pa., and Camden, N.J., was dumped at this site from 1973 through 1980. The site received ca. 305 × 10⁷ kg of sludge before dumping ceased on 25 November 1980 (26). The locations of both sites are shown in Fig. 1.

Sample collection. Between 1980 and 1982, three scientific cruises were made to PDS and two scientific cruises were made to NYB for the collection of water, sediment, and rock crabs (*Cancer irroratus*). During these cruises, 111 and 73 different stations were sampled in PDS and NYB, respectively. In addition, 29 other stations located between the two sites were sampled during the first 2 years. Bottom sediments were collected from all stations, and water and crab samples were collected from a few selected stations.

(i) **Water samples.** For bacteriological examination, water samples were collected with a sterile hinge sampler (25). For virological examination, water samples were processed with the aid of a virus concentrator as described below.

(ii) **Sediment samples.** Sediment samples were collected with a 0.1-m³ Smith-McIntyre sampler (16). The top 1-cm layer of the sediment was removed with a sterile tongue depressor and placed in a sterile plastic bag. All sediment samples were routinely refrigerated and analyzed for fecal indicator bacteria on board within 6 h of collection. For quantitation of viruses, the samples were frozen and later shipped to a virology laboratory, where they were stored at -70°C pending virus isolation.

(iii) **Rock crabs.** Rock crabs (*C. irroratus*) were collected with a 3/4 Yankee trawl or a rocking chair dredge. Tows were done for 15 to 30 min at 1.5 to 3.5 knots. The gastrointestinal tracts and hepatopancreases of 10 to 12 crabs from each station were pooled, frozen, and then shipped to the laboratory for virus isolation.

Indicator bacteria. Most probable numbers of total coliforms, fecal coliforms, and fecal streptococci were determined by standard methods (2) as described previously (26).

Concentration and detection of viruses. (i) **Water.** Viruses from 400- to 800-liter samples of bottom seawater were concentrated by the membrane adsorption-elution method (11, 12). Each water sample was adjusted to pH 3.5 and 0.1M AlCl₃ by inline injection of 1 N HCl and subsequently pumped through a series of two virus adsorption filters of 7- and 0.45-µm porosity (Filterite filters, Duo-Flow series, Filterite Corp., Timonium, Md.). Adsorbed viruses were

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WIDESPREAD OUTBREAKS OF CLAM- AND OYSTER-ASSOCIATED GASTROENTERITIS

Role of Norwalk Virus

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MEHDI SHAYEGANI, PH.D., RUDOLF DEIBEL, M.D., JOHN C. GRABAU, PH.D., NANCY A. NOWAK, M.A.,
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Abstract Consumption of raw shellfish has long been known to be associated with individual cases and sporadic outbreaks of enteric illness. However, during 1982, outbreaks of gastroenteritis associated with eating raw shellfish reached epidemic proportions in New York State. Between May and December 31, there were 103 well-documented outbreaks in which 1017 persons became ill; 313 cases were related to eating clams, and 204 to eating oysters. The most common symptoms were diarrhea, nausea, abdominal cramps, and vomiting. Incubation periods were generally 24 to 48 hours long, and the duration of illness was 24 to 48 hours. Bacteriologic analyses of stool and shellfish specimens did not reveal a causative

agent. Norwalk virus was implicated as the predominant etiologic agent by clinical features of the illness and by seroconversion and the formation of IgM antibody to Norwalk virus in paired serum samples from persons in five (71 percent) of seven outbreaks in which testing was done. In addition, Norwalk virus was identified by radioimmunoassay in clam and oyster specimens from two of the outbreaks. Determining the source of the shellfish was not always possible, but northeastern coastal waters were implicated. The magnitude, persistence, and widespread nature of these outbreaks raise further questions about the safety of consuming raw shellfish. *N Engl J Med* 1986; 314:573-81.

INGESTION of shellfish has been known for over 50 years to cause outbreaks of bacterial and viral enteric diseases.¹⁻⁵ Typhoid fever,¹ hepatitis A,² cholera,³ and *Vibrio parahaemolyticus*⁴ have long been associated with eating raw clams and oysters. More recently, outbreaks of gastroenteritis due to non-*Vibrio cholerae*,⁶ Norwalk virus,^{1,7-12} campylobacter,¹³ and "small round structured viruses"¹⁴ have been associated with consumption of raw shellfish.

Unlike previous outbreaks of raw-shellfish-associated gastroenteritis, which have generally been infrequent and sporadic, the outbreaks summarized here were frequent and widespread events in which Norwalk virus had a major etiologic role.

METHODS

During 1982, in response to numerous reports of shellfish-associated illness, the New York State Health Department established procedures for systematic collection of epidemiologic data. A shellfish-related outbreak was defined as an incident in which gastrointestinal symptoms (nausea, vomiting, diarrhea, or abdominal cramps) developed in two or more persons within 72 hours after they had eaten clams or oysters that were implicated as the source of illness. Epidemiologic investigations were conducted according to standard techniques for evaluating foodborne outbreaks.¹⁵ Persons representative of those who attended events at which suspect shellfish were eaten were interviewed to obtain basic demographic information, food-consumption histories regarding all foods served, and the date of onset, duration, and type of symptoms.

Stool specimens from some symptomatic persons were tested for enteric pathogens, including salmonella, shigella, campylobacter, yersinia, *Shigella flexneri* serovars, *Bacillus anthracis*, *Clostridium perfringens*, and vibrio bacteria and enteroviruses, rotaviruses, and adenovi-

ruses. Leftover shellfish were tested for the same pathogens and for total and fecal coliform counts.

Paired serum samples from subjects in some outbreaks statistically associated with shellfish consumption were tested for total serum antibody to Norwalk virus by means of radioimmunoassay and for IgM-specific Norwalk antibody by methods previously described.¹⁶⁻¹⁷ Stool and shellfish specimens were tested for Norwalk virus antigen by radioimmunoassay. Shellfish extracts were prepared as 5 percent homogenates in yeast-inhibition broth with 1.5 percent bovine serum albumin and were tested by radioimmunoassay in the manner previously described for stool extracts.¹⁶

Attempts were made to identify the source of implicated clams and oysters by using tags of shellfish shippers in combination with records of distributors to trace the origins of the shellfish.

RESULTS

Of several hundred incidents reported during 1982, 103 in 21 counties were sufficiently documented so that they met the criteria for classification as a shellfish-associated outbreak. The events preceding the illnesses were attended by more than 5000 persons, of whom 2319 were interviewed. Of those interviewed, 1017 (44 percent) had become ill—313 after having eaten clams, and 204 after having eaten oysters. These outbreaks occurred during distinct "summer" and "winter" periods (Fig. 1).

Summer Outbreaks

Ten upstate counties reported 22 summer outbreaks of clam-related illness: 17 involved gastroenteritis, 1 involved hepatitis A, and 4 involved both illnesses. Of 3372 persons attending the events, 443 of 1241 interviewed had had gastrointestinal illnesses (Table 1). Overall attack rates ranged from 56 percent among persons eating raw clams or both raw and steamed clams, to 26 percent among those eating steamed clams, to 3 percent among those not eating any clams.

In 16 outbreaks there was a statistically significant association ($P < 0.05$) between consumption of raw clams and illness. Detailed questionnaires for 1058 persons in 14 of these 16 outbreaks showed that 357 (34 percent) had one or more gastrointestinal

From the Bureau of Communicable Disease Control, the Bureau of Communicable Disease Prevention and Food Protection, and the Watershed Center for Laboratories and Research, New York State Department of Health, Albany; the Division of Field Services, Centers for Disease Control (at the New York State Department of Health, Albany); and the Division of Infectious Diseases, University of Massachusetts Medical School, Worcester, Mass. Address reprint requests to Dr. Morse at the Bureau of Communicable Disease Control, Tower Bldg., — Rm. 651, New York State Department of Health, Albany, NY 12237.

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1980 ANNUAL MEETING
MEDICAL SOCIETY OF NEW JERSEY

RESOLUTION #15

Introduced by: Essex County Medical Society

Subject: Cessation of Sludge Dumping

Referred to: Reference Committee "G"

-
- 1 Whereas, the House of Delegates of the Medical Society of New
2 Jersey adopted a resolution in May, 1977 which called for
3 cessation of sludge dumping in the so-called New Jersey bight;
4 and
5
6 Whereas, the date designated for such dumping to be phased out
7 was 1981; and
8
9 Whereas, it was recently learned that New York is attempting to
10 overturn this 1981 deadline; and
11
12 Whereas, sludge dumping is directly related to the pollutant
13 condition which has disrupted and curtailed New Jersey's clamming,
14 oystering, lobstering, and fishing industries; and
15
16 Whereas, the problem of tides of dead algae threatens New Jersey's
17 bathing beaches and could affect the health of those who use its
18 shores for business or recreation; and
19
20 Whereas, the present system of dumping of sludge close to New
21 Jersey's beaches has now become a public health menace; now
22 therefore be it
23
24 **RESOLVED, that the Medical Society of New Jersey reaffirm its**
25 **original resolution of 1977 which called for the cessation of**
26 **sludge dumping by 1981; and be it further**
27
28 **RESOLVED, that the Medical Society of New Jersey send copies of**
29 **this resolution to designated officials of the Environmental**
30 **Protection Agency, the National Oceanic Atmospheric Agency, and**
31 **the Department of Environmental Protection, as well as other**
32 **concerned government officials.**

RESOLUTION #27

SLUDGE POLLUTION
From the Essex County Medical Society
(Reference Committee "G")

1 Whereas, the State of New Jersey has been known for its clear waters,
2 clean beaches and excellent fisheries; and
3

4 Whereas, our bay and ocean waters have suffered from a tremendous
5 influx of pollution in the past five years; and
6

7 Whereas, many professional divers have reported that the ocean floor
8 off our coast is now a desert, devoid of oxygen and consequently
9 life; and
10

11 Whereas, this pollutant condition has disrupted and curtailed our
12 clamming, oystering, lobstering, and fishing industries; and
13

14 Whereas, the problem of tides of dead algae threatens our bathing
15 beaches and could affect the health of those who use our shores for
16 business or recreation; and
17

18 Whereas, the present system of dumping of sludge close to our
19 beaches has now become a public health menace; now therefore be it
20

21 RESOLVED, that The Medical Society of New Jersey initiate action
22 against the public health problem of pollution of our New Jersey
23 waters; and be it further
24

25 RESOLVED, that we work toward legislation or regulations which
26 would quickly move the present twelve mile sludge dumping sites to
27 106 miles offshore until the year 1981, at which time all ocean
28 dumping will be phased out; and be it further
29

30 RESOLVED, that The Medical Society of New Jersey send copies of this
31 resolution to designated officials of the Environmental Protection
32 Agency, the National Oceanic Atmospheric Agency and the Department
33 of Environmental Protection as well as other concerned government
34 officials.

(Above resolution was submitted by Daniel N. Burbank, M.D.
of Cedar Grove)

RESOLUTION

by Daniel N. Burbank, M.D., Delegate Essex

1977

BAN OCEAN DUMPING

- WHEREAS, In 1977 Congress passed a law which was designed to ban ocean dumping by December 31, 1981; and
- WHEREAS, The Federal courts have since permitted continuous dumping by allowing this deadline to be extended; and
- WHEREAS, The State of New Jersey was known for its clear waters, clean beaches and excellent fisheries; and
- WHEREAS, Our bay and ocean waters have suffered from a continuing influx of excessive pollution in recent years; and
- WHEREAS, The problem of tides of dead algae threatens our bathing beaches and could affect the health of those who use our shores for business or recreation; and
- WHEREAS, Jacques Cousteau recently testifying before a House oceanography subcommittee, stated "Ocean dumping of non-degradable toxic substances must be flatly prohibited," therefore be it
- RESOLVED, That the Medical Society of New Jersey take strong action against the public health problem of pollution of our New Jersey waters, and be it further
- RESOLVED, That the Medical Society of New Jersey reaffirm its position calling for the cessation of sludge and waste dumping off our New Jersey Coast; and be it further
- RESOLVED, That the Medical Society of New Jersey reaffirm its position against the dumping at sea of toxic waste material; and be it further
- RESOLVED, That the Medical Society of New Jersey notify the public, the press and responsible Governmental agencies that irreversible damage will be caused to our marine environment to the detriment of future generations if prolonged and indiscriminate dumping is permitted to continue in our offshore waters

Doctors Review Pollution Bill

Study To Probe Swimming-Illness Tie

By BARBARA PRESTON
Press Correspondent

After wading up to their waists on an Atlantic County beach this summer, three women contracted an itchy rash from their toes to their waists.

"There were hundreds of pin-sized lesions that looked like multiple small insect bites," said Dr. Lawrence Anastasi, who practices in Atlantic City and Margate, "and they felt a stinging sensation."

He doesn't know exactly what caused the rashes, except that "they were not from jellyfish

Related story, Page 40

stingers, which would have left swollen and welted rashes."

Anastasi is one of New Jersey's coastal area physicians who have recognized more and more cases of nausea, diarrhea and ear and eye infections this summer which he believes may be related to ocean pollutants. He and other physicians can't scientifically prove that these ailments were contracted from the ocean, but he does know that "the common denominator the victims shared was

that they were all swimming in the ocean prior to their ailment."

"If there are any suspicions of potential health problems, any possibility at all, the state should investigate it," Anastasi said in a recent interview.

A bill addressing ocean pollution and related health problems is now under consideration by state lawmakers.

State Sen. Leonard T. Connors Jr., R-Ocean, and Assemblyman Jeffrey W. Moran, R-Ocean, Burlington, have introduced a bill that would require the state Department of Health, in consultation with the Department of Environmental Protection, to conduct a study to determine whether pollution in the state's coastal waters has a causal effect on human ailments, including infection of eyes, ears, and throat, vaginitis, and gastrointestinal disease, said Gerry P. Little, an aide to the senator.

(See POLLUTION on Page 13)

POLLUTION, from Page 1

ment of Health, in consultation with the Department of Environmental Protection, to conduct a study to determine whether pollution in the state's coastal waters has a causal effect on human ailments, including infection of eyes, ears, and throat, vaginitis, and gastrointestinal disease, said Gerry P. Little, an aide to the senator.

The state health department would be required to conduct a three-year pilot study on the possible effects or relationship between ocean pollution and certain ailments.

The state's physicians would be provided with postage-paid forms on which doctors could report aspects of their patients' illnesses which they feel may be linked to ocean pollutants, Little said.

Doctors would provide information on related patients by providing the nature and type of illness, and where and when the patient was in the ocean, while keeping the patient's name confidential.

Once the date is discovered, with help from the health department, the study will include what the fecal coliform level was for that date, Little said.

Some barrier-island doctors support the legislation, or the idea that some kind of testing is needed to see if there is a correlation between ocean pollution and human ailments, while others maintain that nothing is wrong with the ocean.

Most of the coastal area doc-

ocean dumping. It is a logical association that as the water gets murky and man-made pollutants are washing up on the beach, ... It is getting dangerous to health," he said.

"But first," Bellingham said, "we need scientific evidence and proof to determine what kind of illnesses pollution may cause. Until we have that, we are just spinning our wheels."

Dr. Michael S. Slotoroff of Seashore Medical Associates in Pleasantville said he would participate. But he does not see a health hazard in area waters.

"It would be no problem for me to do this study, but none of my patients complained about swimming problems this summer. If I were noticing a lot of illnesses I would call the board of health myself. As a doctor, I'm willing to do a study but hardly any other doctors I've talked to in this area ever said they had a problem either," Slotoroff said.

"We have no control over the ocean waters. Our major responsibility is to make sure things are right. We only check the water once a week in the summer for fecal coliform," said Dr. Warren Redner, director of environmental health services for the health department.

DEP spokesman Jim Staples said, "If the medical society of New Jersey would like to move ahead with this bill, we would agree with it. Right now there is no documentation to our attention that would call for an investigation."

The legislation "is not needed," according to Vincent Marassa, who

be reported," he said.

"This bill implies that the state departments are not doing their jobs. They can't act on something when there is no evidence," Marassa said.

Connors said he introduced the bill because, "We don't know if there are more cases of illnesses or not. We have nothing to measure by. In order to know where we are going, we have to know where we've been."

This bill would document whether the illnesses doctors are reporting are a "normal everyday condition for people who swim in the ocean or if we are on the verge of an epidemic," Connors said.

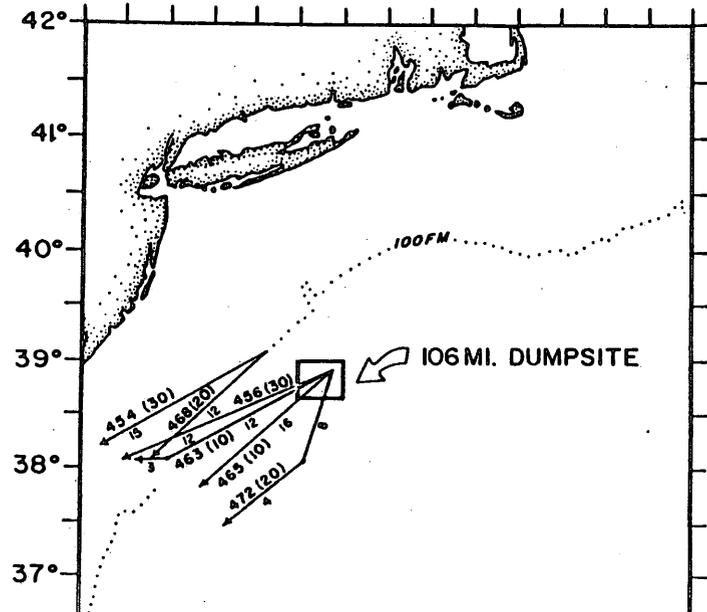
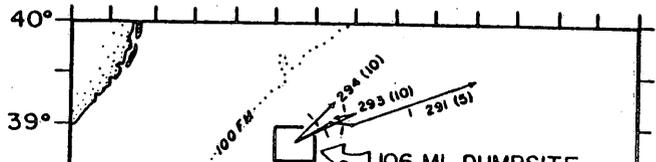
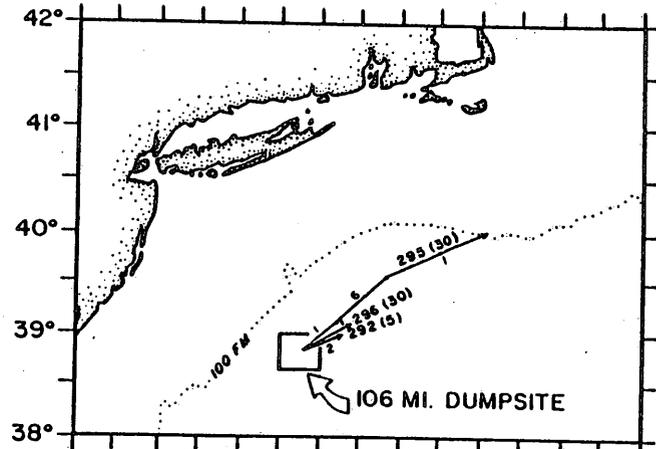
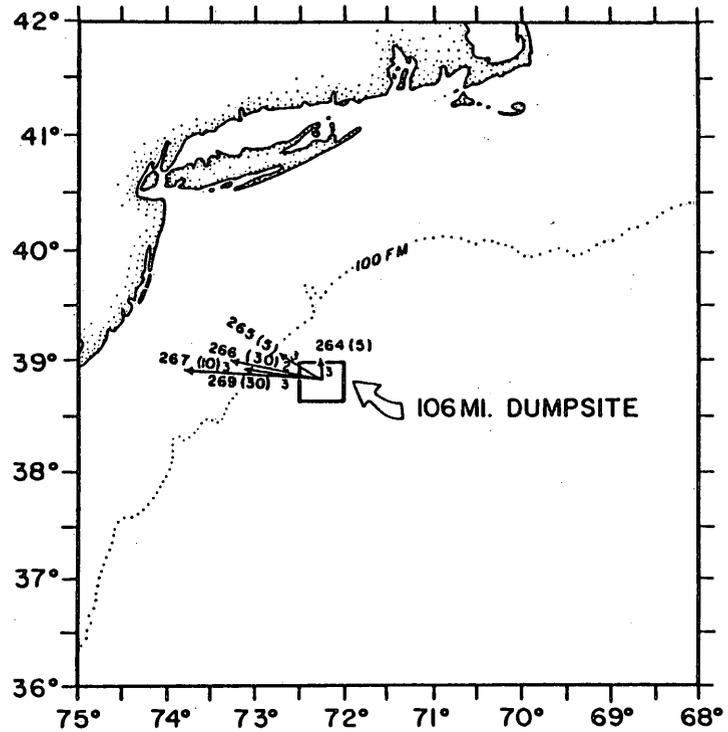
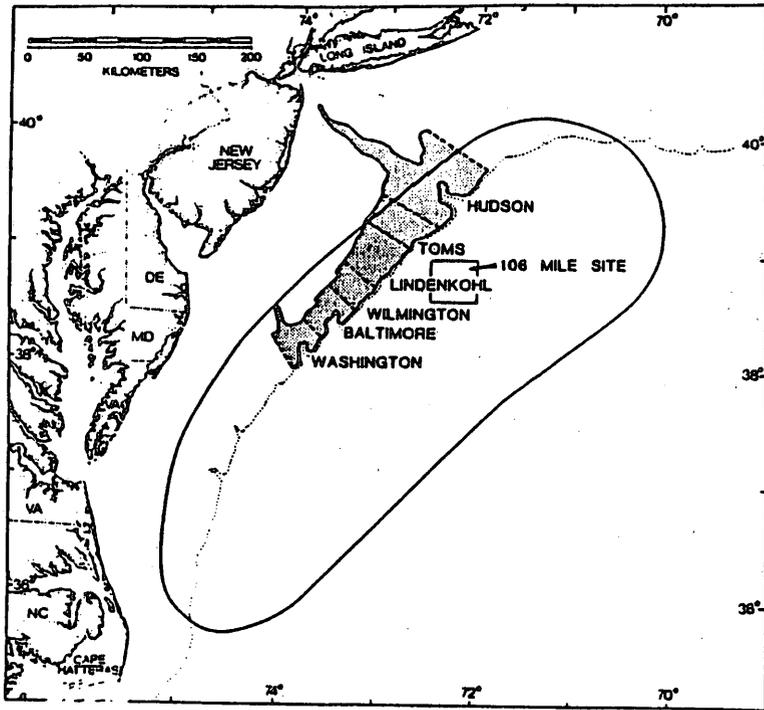
"The results ... may be beneficial to motivate a cleanup of trash, sludge, chemicals and drugs that are being dumped into the ocean," Connors said.

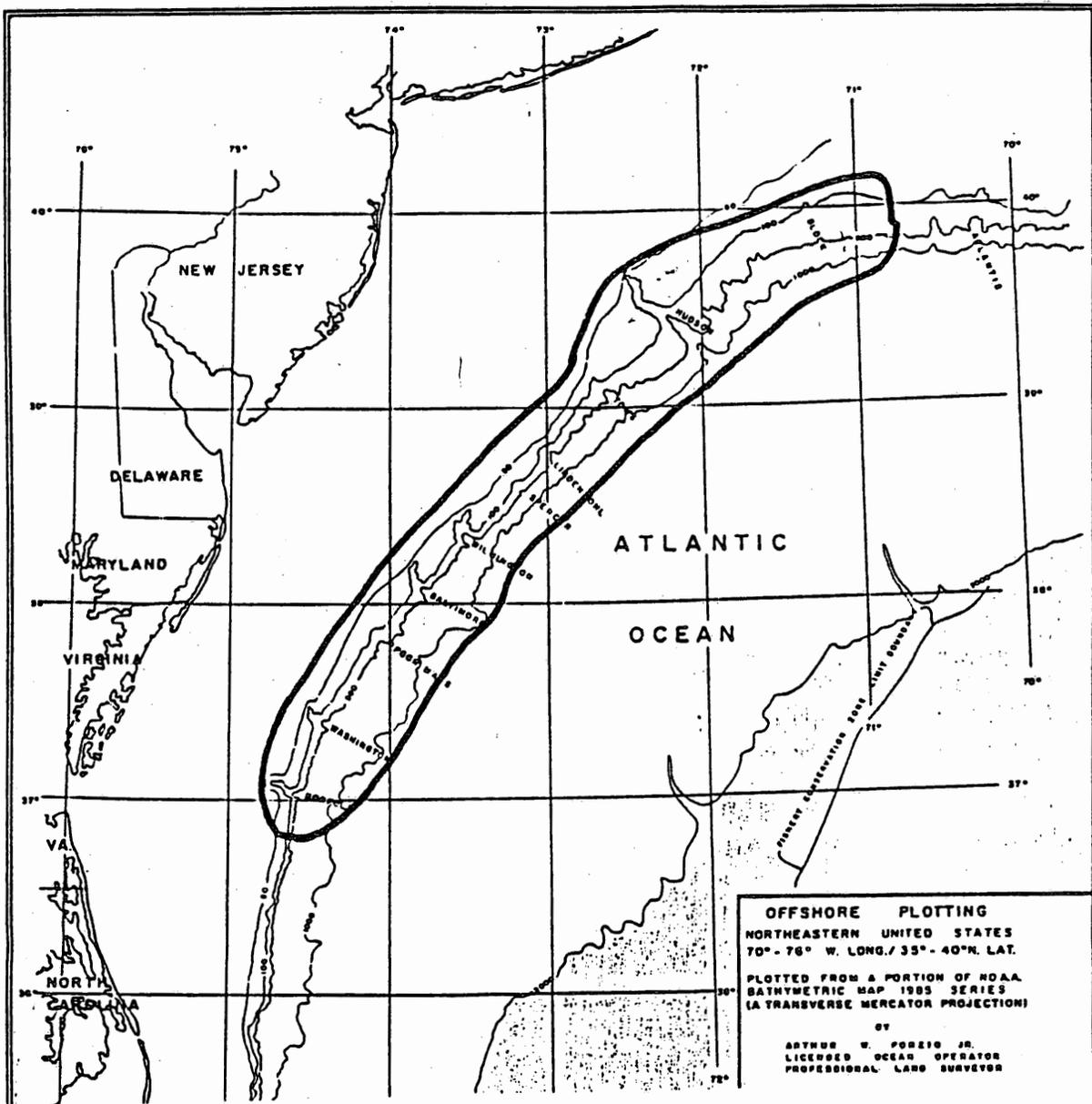
"Maybe it would help to identify dumping sites," he said.

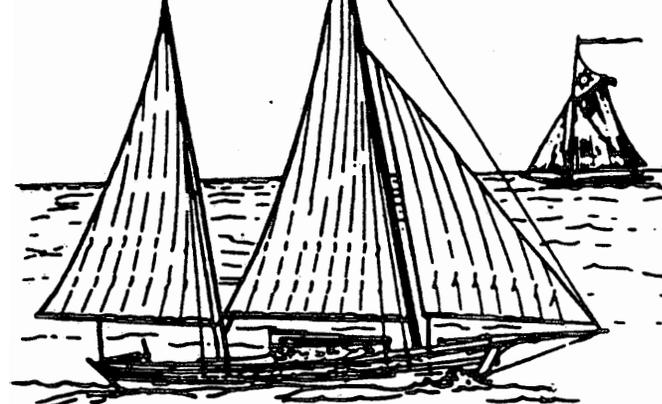
"The ocean is in serious degradation. It is full of plastic and tons of litter ranging from tampon sticks to surgical supplies. This bill was formulated to find out if ocean degradation has any effect on people getting infections," Connors said.

33X

34X







our skipjack "Rainbow Race"

MONMOUTH COUNTY FRIENDS OF CLEARWATER,

P.O. Box 303 Red Bank, N.J. 07701

SORRY, I HAD TO LEAVE TO MEET A FOUR O'CLOCK APPOINTMENT IN BAYONNE.

WOULD HAVE HAD THIS TYPED UP PROPERLY IF I KNEW I WERE GOING TO SUBMIT INSTEAD OF READING IT MYSELF.

HELLO, MY NAME IS HELYN CHROBOCINSKI AND I AM PRESIDENT OF MONMOUTH COUNTY FRIENDS OF CLEARWATER, A NON PROFIT ALL VOLUNTEER RUN, ENVIRONMENTAL ORGANIZATION BASED HERE IN MONMOUTH COUNTY FOR OVER TWELVE YEARS.

WE TAKE WATER SAMPLES FROM OUR RESEARCH VESSEL RAINBOW RACE IN RARITAN BAY. IN THE PAST YEAR AS A DIRECT RESULT OF OUR INITIAL WATER SAMPLES, A 1.25 MILLION DOLLAR FINE, THE LARGEST EVER IN THE STATE OF NEW JERSEY, WAS LEVIED AGAINST INTERNATIONAL FLAVORS AND FRAGRANCES OF UNION BEACH FOR THE DISCHARGE OF POLLUTANTS INTO RARITAN BAY. I MAKE THIS POINT, HERE AND NOW TO PROVE TO YOU THAT A GROUP OF CONCERNED CITIZENS CAN MAKE A DIFFERENCE.

I AGREE WITH SENATOR PALLONE, THAT WE SHOULD AGGRESSIVELY INVESTIGATE THE SOURCES OF POLLUTION IN OUR OCEAN.

I WAS BORN AND RAISED IN JERSEY CITY AND MADE THE MOVE HERE TO LONG BRANCH TO BE CLOSER TO THE OCEAN. It is APPALLING TO ME THAT WE ARE NOT ALLOWED TO DUMP INTO SEWERS WHAT WE CAN LEGALLY DUMP INTO OUCOAN, AND WHAT IS ILLEGALLY DUMPED IS ANOTHER STORY.

MONMOUTH COUNTY FRIENDS OF CLEARWATER HAS WORKED CLOSELY WITH CLEAN OCEAN ACTION TO EXTEND THE ^{12 mi.} DUMP SITE ^{TO} 106 MILES. WHY IS IT THAT WE SHOULD HAVE TO FIGHT SO LONG AND HARD FOR THE 106 MILE DUMP SITE, WHEN WE SHOULD NOT BE DUMPING INTO THE OCEAN AT ALL?

THE MEMBERS OF MONMOUTH COUNTY FRIENDS OF CLEARWATER HAVE BEEN INVOLVED
IN BEACH CLEAN UPS AT SANDY HOOK WHERE THOUSANDS OF POUNDS OF DEBRIS HAVE
BEEN CLEANED FROM THE BEACHES. PLASTIC BOTTLES, TIN CANS, BROKEN GLASS,
TAMPON APPLICATORS, AND EVEN HYPODERMIC NEEDLES AND OTHER EQUALLY
DISGUSTING HOSPITAL DEBRIS HAVE BEEN PICKED UP BY OUR VOLUNTEERS.
IT HAS BEEN STATED THAT WE CAN ~~NOT~~ ESTIMATE THE AMOUNT OF
TOILET FLUSHES FROM NEW YORK BY THE AMOUNT OF TAMPON APPLICATORS
FOUND IN A GIVEN AREA. WHAT A SAD COMMENTARY ON OUR SOCIETY!
NEW YORK, NEW JERSEY, WHAT DIFFERENCE DOES IT MAKE. WE ARE ALL
RESIDENTS OF ONE PLANET. OUR WATER RESOURCES ARE MORE PRECIOUS
THAN GOLD. WASN'T THAT PROVEN TO US LAST SUMMER WHEN DROUGHT
HIT SOME OF OUR SOUTHERN STATES. WHY ARE WE NOT DOING MORE TO INSURE
THE SAFETY OF OUR MOST PRECIOUS NATURAL RESOURCE?
MONMOUTH COUNTY FRIENDS OF CLEARWATER WILL DO ALL IN ITS POWER TO
SUPPORT SENATOR FRANK PALLONE'S SENATE SPECIAL COMMITTEE TO
STUDY COASTAL AND OCEAN POLLUTION. WE ARE HAPPY TO HAVE HIM AS A
FRIEND, AND HE IS TRULY A FRIEND TO THE ENVIRONMENT.

Helyn Chrobocinski
524 Second Ave.
Long Branch, N. J. 07740
201-229-9631
President
Monmouth County Friends of
Clearwater.

TESTIMONY OF CHRISTOPHER J. DAGGETT REGIONAL
ADMINISTRATOR U.S. ENVIRONMENTAL PROTECTION
AGENCY REGION II BEFORE THE N.J. SENATE
SPECIAL COMMITTEE TO STUDY COASTAL AND
OCEAN POLLUTION

JANUARY 7, 1987

THE MPRSA ESTABLISHED FOR THE FIRST TIME, A NATIONAL POLICY OF STRICTLY REGULATING OCEAN DUMPING BY BANNING THE DUMPING OF CHEMICAL, BIOLOGICAL, OR RADIOLOGICAL WARFARE AGENTS AND HIGH-LEVEL RADIOACTIVE WASTES, AND BY AUTHORIZING A PERMIT SYSTEM FOR THE DUMPING OF ANY OTHER MATERIALS IN OCEAN WATERS.

UNDER THE ACT, EPA IS AUTHORIZED TO ADMINISTER AND ENFORCE THE ENTIRE OCEAN DUMPING PROGRAM AND TO ISSUE PERMITS REGULATING THE DUMPING OF ALL MATERIALS, EXCEPT DREDGED MATERIALS WHICH ARE DUMPED UNDER PERMITS ISSUED BY THE CORPS OF ENGINEERS AND ARE CONSISTENT WITH EPA CRITERIA.

EPA OR THE CORPS OF ENGINEERS MAY ISSUE PERMITS WHEN IT IS DETERMINED THAT THE DUMPING WILL NOT UNREASONABLY DEGRADE THE MARINE ENVIRONMENT. BASICALLY, IN REVIEWING AND EVALUATING OCEAN DUMPING APPLICATIONS, THE FOLLOWING CRITERIA ARE APPLIED: THE NEED FOR THE DUMPING WHICH INCLUDES AN ANALYSIS OF THE AVAILABILITY OF LAND-BASED ALTERNATIVE DISPOSAL METHODS; THE ENVIRONMENTAL IMPACT; THE IMPACT ON AESTHETIC, RECREATIONAL AND ECONOMIC VALUES; AND THE IMPACT ON OTHER USES OF THE OCEAN.

ANOTHER MECHANISM DEVELOPED TO REGULATE THE DUMPING OF WASTES IN THE OCEAN IS THE "LONDON DUMPING CONVENTION", AN INTERNATIONAL TREATY THAT WAS RATIFIED IN 1975.

12- MILE SITE FOR MUNICIPAL SLUDGE

SINCE THE 1920'S, NEW YORK CITY HAS BEEN DUMPING MUNICIPAL SLUDGE AT A SITE LOCATED 12 MILES OFF THE COAST OF NEW JERSEY IN THE NEW YORK BIGHT. WHILE MANY MUNICIPALITIES AND SEWERAGE AUTHORITIES IN NEW YORK AND NEW JERSEY HAVE PREVIOUSLY DUMPED MUNICIPAL SLUDGES AT THE 12-MILE SITE, TODAY ONLY NINE SEWERAGE AUTHORITIES ARE AUTHORIZED, ALL UNDER FEDERAL COURT ORDERS, TO OCEAN DISPOSE OF MUNICIPAL SLUDGE. ALTHOUGH THE NUMBER OF SLUDGE DUMPERS HAS DECREASED SINCE THE PASSAGE OF THE MPRSA, THE VOLUME OF SLUDGE DUMPED HAS INCREASED FROM 4.6 MILLION WET TONS IN 1973 TO MORE THAN 7.2 MILLION WET TONS IN 1985. THIS INCREASE WAS LARGELY DUE TO THE FACT THAT MOST METROPOLITAN AREA TREATMENT PLANTS HAVE BEEN UPGRADED TO PROVIDE A HIGHER LEVEL OF TREATMENT, AND ARE CONSEQUENTLY PRODUCING MORE SLUDGE.

IN 1973, EPA DESIGNATED THE 12-MILE SITE FOR INTERIM USE AND IN 1978, IT BECAME AN APPROVED DUMP SITE. ON DECEMBER 31, 1981, THE SITE DESIGNATION EXPIRED, AND EPA DENIED ALL THE APPLICATIONS TO RENEW OCEAN DUMPING PERMITS. SUBSEQUENTLY, NEW YORK CITY AND SEVERAL OTHER MUNICIPALITIES BROUGHT SUIT AGAINST EPA CHALLENGING THE AGENCY'S REFUSAL TO RENEW THEIR PERMITS. IN THE NEW YORK CITY CASE, THE JUDGE SAID THAT EPA COULD NOT DENY OCEAN DUMPING PERMIT APPLICATIONS WITHOUT CONSIDERING THE AVAILABILITY AND IMPACT OF LAND-BASED ALTERNATIVES. THE JUDGE'S ORDER BARRED EPA FROM TAKING ANY ACTION TO PROHIBIT NEW YORK CITY FROM DUMPING MUNICIPAL SLUDGE AT THE 12-MILE SITE UNTIL THE AGENCY RULED ON A PETITION THE CITY FILED TO REDESIGNATE THE 12-MILE SITE. ORDERS SIMILAR TO THOSE ISSUED IN THE NEW YORK CITY LAWSUIT WERE ENTERED INVOLVING EPA AND EIGHT OTHER MUNICIPAL SEWERAGE AUTHORITIES IN THE NEW YORK/NEW JERSEY METROPOLITAN AREA.

ON APRIL 1, 1985, EPA DENIED THE PETITIONS FILED BY THE DUMPERS. THE AGENCY CONCLUDED THAT REDESIGNATION OF THIS SITE WOULD BE INCONSISTENT WITH THE MPRSA, AND THE OCEAN DUMPING REGULATIONS AND CRITERIA. THE DECISION MEANT THAT THE SLUDGE DUMPERS WOULD NO LONGER BE ALLOWED TO DISPOSE OF SLUDGE AT THE 12-MILE SITE. INSTEAD THEY WOULD HAVE TO RELOCATE DUMPING OPERATIONS TO THE ONLY DESIGNATED SITE AVAILABLE FOR SUCH ACTIVITIES, THE DEEPWATER MUNICIPAL SLUDGE DUMP SITE (SOMETIMES CALLED THE 106-MILE SITE).

THE DEEPWATER SITE IS LOCATED APPROXIMATELY 120 NAUTICAL MILES SOUTHEAST OF AMBROSE LIGHT, N.Y. AND 115 NAUTICAL MILES FROM ATLANTIC CITY, N.J., THE NEAREST COASTLINE. WATER DEPTHS AT THE SITE RANGE FROM 7,000 TO 9,000 FEET. EPA DESIGNATED THE DEEPWATER MUNICIPAL SEWAGE DUMP SITE ON MAY 4, 1984. THIS SITE WAS VIEWED AS ENVIRONMENTALLY PREFERABLE TO THE 12-MILE SITE, IN PART BECAUSE LIFE IN THE DEEP OCEAN IS MORE SPARSE THAN ON THE CONTINENTAL SHELF; AND BECAUSE DISPERSION BY CURRENTS OF THE DUMPED MATERIAL IS BETTER IN THE DEEPER WATER. GIVEN THESE FACTS

COMBINED WITH THE FACT THAT THE SITE IS SO FAR FROM THE COASTLINE, THE POTENTIAL FOR ENVIRONMENTAL IMPACTS IS GREATLY REDUCED, ESPECIALLY IN NEAR-SHORE AREAS.

TRANSFER OF DUMPING OPERATIONS FROM THE 12-MILE SITE TO THE 106-MILE SITE

ON APRIL 1, 1985, EPA SENT LETTERS TO ALL OF THE MUNICIPAL SLUDGE DUMPERS ADVISING THEM OF THE DECISION REGARDING THE 12-MILE SITE AND REQUESTING THAT THEY SUBMIT SCHEDULES FOR THE SHIFTING OF DUMPING OPERATIONS TO THE DEEPWATER SITE. WE THEN PROCEEDED TO NEGOTIATE PHASE-OUT SCHEDULES WITH EACH OF THE SLUDGE DUMPERS.

AS A RESULT OF OUR NEGOTIATIONS, WESTCHESTER COUNTY AND NASSAU COUNTY ENDED DUMPING OPERATIONS AT THE 12-MILE SITE IN MARCH 1986, AND JUNE 1986, RESPECTIVELY. BOTH COUNTIES CONTRACTED WITH PRIVATE BARGING OPERATIONS FOR THE SHIFT TO THE DEEPWATER MUNICIPAL SLUDGE DUMP SITE.

THE SIX NEW JERSEY SEWERAGE AUTHORITIES FORMED A "JOINT VENTURE" TO MANAGE THEIR FUTURE SLUDGE DUMPING AND HAVE CONTRACTED WITH

PRIVATE BARGING OPERATIONS FOR THE SHIFT. THE AUTHORITIES COMMITTED TO HAULING A NET TOTAL OF 25% OF THEIR SLUDGE TO THE 106-MILE SITE THROUGH DECEMBER OF 1987 WHEN THE TOTAL PHASE-OUT GOES INTO EFFECT.

NEW YORK CITY BEGAN DUMPING 10% OF ITS SLUDGES AT THE DEEPWATER MUNICIPAL SLUDGE DUMP SITE LAST APRIL. THE CITY DECIDED THAT IT WANTED TO HAVE ITS OWN FLEET OF VESSELS AND IS IN THE PROCESS OF CONSTRUCTING THREE NEW BARGES. THE NEW BARGES WILL BE BROUGHT ON LINE BEGINNING IN JUNE 1987, AND WILL TAKE 40% OF THE SLUDGE TO THE DEEPWATER SITE BY SEPTEMBER, 75% BY NOVEMBER AND 100% BY THE DEADLINE: DECEMBER 15, 1987.

THE NEGOTIATED SCHEDULES PROVIDE FOR THE COMPLETE CESSATION OF ALL DUMPING OF MUNICIPAL SLUDGE AT THE 12-MILE SITE BY THE YEAR-END DEADLINE. WE BELIEVE THAT THE OVERALL WATER QUALITY OF THE NEW YORK BIGHT SHOULD IMPROVE AFTER THE PHASE-OUT IS COMPLETE.

MUD DUMP SITE FOR DREDGED MATERIAL

THE OCEAN DUMPING OF DREDGED MATERIAL FROM HARBOR ENTRANCE

CHANNELS WAS PROBABLY THE EARLIEST TYPE OF OCEAN DUMPING DONE

AND STILL ACCOUNTS FOR THE MAJORITY OF MATERIAL DUMPED AT THE PRESENT TIME. THE ECONOMIC VIABILITY OF THE PORT OF NEW YORK AND NEW JERSEY DEPENDS ON MAINTENANCE DREDGING OF NAVIGATION CHANNELS AND BERTHING AREAS. MANY SHIPPING CHANNELS IN NEW YORK HARBOR ARE IN AREAS WHERE THE NATURAL WATER DEPTH WOULD PREVENT PASSAGE OF MODERN, DEEP-DRAFT VESSELS. NAVIGATIONAL CHANNELS FOR OCEAN-GOING VESSELS MUST BE MAINTAINED AT AN AVERAGE DEPTH OF 45 FEET. TO MAINTAIN THESE DEPTHS, 8-10 MILLION CUBIC YARDS ARE DREDGED ANNUALLY AND ARE DISPOSED OF AT THE MUD DUMP SITE. DUMPING OF DREDGED MATERIALS IN THE VICINITY OF THE MUD DUMP SITE DATES BACK TO 1914. THE SITE IS LOCATED APPROXIMATELY 6 NAUTICAL MILES EAST OF HIGHLANDS, NEW JERSEY AND 10 NAUTICAL MILES SOUTH OF ROCKAWAY, LONG ISLAND. THE SITE IS 2.2 SQUARE NAUTICAL MILES. WATER DEPTHS RANGE BETWEEN 50 AND 90 FEET. ON MAY 4, 1984, EPA DESIGNATED THE MUD DUMP SITE FOR DISPOSAL OF DREDGED MATERIALS FROM THE PORT OF NEW YORK AND NEW JERSEY. AT THE TIME THE SITE WAS DESIGNATED, EPA RESTRICTED THE AMOUNT OF DREDGED MATERIAL THAT COULD BE DUMPED AT THE SITE TO 100 MILLION CUBIC YARDS. THIS AMOUNT WAS BASED ON AN ANALYSIS OF THE SITE CAPACITY.

AUTHORIZATION TO OCEAN DUMP DREDGED MATERIAL AT THE SITE IS GRANTED UNDER PERMITS THAT ARE CONSISTENT WITH EPA'S MARINE ENVIRONMENTAL IMPACT CRITERIA BUT ARE ISSUED BY THE CORPS OF ENGINEERS. MONITORING DATA COLLECTED BY THE CORPS AND EPA SHOW THAT THE IMPACTS OF DREDGED MATERIAL DISPOSAL ARE PRIMARILY LIMITED TO THE DUMP SITE ITSELF: THE PLACEMENT OF DREDGED MUDS ON AN OTHERWISE SANDY CONTINENTAL SHELF HAS CHANGED BOTH THE TOPOGRAPHY AND PHYSICAL CHARACTERISTICS OF THE OCEAN FLOOR.

LAST NOVEMBER, THE PRESIDENT SIGNED INTO LAW HR 6, THE WATER RESOURCES DEVELOPMENT ACT OF 1986. THERE IS A REQUIREMENT IN THE LAW FOR EPA TO DESIGNATE A NEW "MUD DUMP" SITE NO CLOSER THAN 20 MILES FROM SHORE WITHIN THREE YEARS. BEFORE PERMITS CAN BE ISSUED, LAND BASED DISPOSAL OPTIONS MUST BE EXPLORED.

THE CORPS OF ENGINEERS NEW YORK DISTRICT, WITH THE COOPERATION OF EPA, IS ACTIVELY INVESTIGATING NON-OCEAN DISPOSAL ALTERNATIVES. THESE INCLUDE USING THE DREDGED MATERIAL FOR SANITARY LANDFILL COVER OR AS BEACH NOURISHMENT; AND DISPOSING OF THE MATERIAL IN SUB-AQUEOUS BORROW PITS AND IN CONTAINMENT ISLANDS. EACH PERMIT APPLICATION FOR

USE OF THE MUD DUMP SITE IS EVALUATED IN TERMS OF THE ALTERNATIVE DISPOSAL OPTIONS THAT EXIST, ALONG WITH THE OTHER OCEAN DUMPING CRITERIA. THE DISPOSAL OPTIONS STUDIED AND IMPLEMENTED BY THE CORPS ARE BEING INCORPORATED INTO A DREDGE MATERIAL MANAGEMENT PLAN FOR THE PORT OF NEW YORK AND NEW JERSEY. THIS PLAN ALLOWS FOR PROPER MATCHING OF A PARTICULAR DREDGED SEDIMENT WITH AN APPROPRIATE DISPOSAL OPTION.

EPA AND THE CORPS ARE WORKING ON A MEMORANDUM OF AGREEMENT THAT WILL ADDRESS SITE MANAGEMENT AND CONTROL, AND THE POSSIBLE SELECTION OF AN ALTERNATIVE OCEAN DISPOSAL SITE. EPA ENDORSES THE CORPS' EFFORTS AND WILL CONTINUE TO PLAY AN ACTIVE ROLE IN FORMULATING STUDIES, REVIEWING RESULTS AND IMPLEMENTING NEW DISPOSAL STRATEGIES.

NEW JERSEY/LONG ISLAND INLET DREDGED MATERIAL SITES

IN ADDITION TO THE MUD DUMP SITE, THERE ARE EIGHT INLET DREDGED MATERIAL DISPOSAL SITES LOCATED ALONG THE NEW JERSEY AND LONG ISLAND COASTLINES. HOWEVER, THESE SITES ARE USED ONLY PERIODICALLY, AND ONLY FOR THE DISPOSAL OF SAND. SINCE INTERIM

DESIGNATION OF THESE SITES WILL EXPIRE IN DECEMBER 1988, EPA IS IN THE PROCESS NOW OF PROPOSING THE SITES FOR FINAL DESIGNATION.

WOODBURNING SITE

FOR NEARLY 20 YEARS, WOOD DEBRIS HAVE BEEN OCEAN BURNED AT AN INTERIM WOODBURNING SITE LOCATED APPROXIMATELY 17 NAUTICAL MILES OFF OF POINT PLEASANT, NEW JERSEY. WE ARE CURRENTLY WORKING ON THE FINAL DESIGNATION OF A SITE AND AN ENVIRONMENTAL IMPACT STATEMENT IS UNDERWAY. THIS SPRING, EPA PLANS TO RELEASE A DRAFT EIS CONCERNING FORMAL DESIGNATION OF AN OCEAN WOODBURNING SITE.

SINCE 1977, APPROXIMATELY 90 PERCENT OF THE WOOD WASTES BURNED AT SEA HAVE COME FROM THE CORPS OF ENGINEERS DRIFT COLLECTION AND DRIFT REMOVAL PROGRAMS. THE PROJECTS ARE SPONSORED BY THE CORPS OF ENGINEERS, THE STATES OF NEW YORK AND NEW JERSEY, THE PORT AUTHORITY OF NEW YORK AND NEW JERSEY, AND THE CITY OF NEW YORK TO ADDRESS THE LONG-TERM SOURCES OF WOOD DEBRIS. UNDER THE DRIFT REMOVAL AND COLLECTION PROGRAMS, THE CORPS AND ITS CONTRACTOR

