

PUBLIC HEARING

before

SENATE ENERGY AND ENVIRONMENT COMMITTEE

"To discuss the appropriate role of incineration, and its alternatives, in the State's long term disposal strategy"

June 1, 1989  
Room 407  
State House Annex  
Trenton, New Jersey

MEMBERS OF COMMITTEE PRESENT:

Senator Daniel J. Dalton, Chairman  
Senator Catherine A. Costa, Vice-Chairman  
Senator John D'Amico  
Senator William L. Gormley

ALSO PRESENT:

Mark T. Connelly  
Office of Legislative Services  
Aide, Senate Energy and Environment Committee

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May 11, 1989

Notice of a Public Hearing

The Senate Energy and Environment Committee will hold a public hearing on the State's Long Term Solid Waste Disposal Strategy on Thursday, June 1, 1989 at 9:30 a.m. in Room #07, State House Annex, Trenton, New Jersey.

The purpose of the public hearing will be to discuss the appropriate role of incineration, and its alternatives, in the State's long term disposal strategy. A list of topics which the Committee is interested in receiving testimony on will be available in Room 350, State House Annex, on May 22, 1989.

Persons interested in testifying at the public hearing should contact Mark T. Connelly, Aide to the Committee, at (609) 292-7676.



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SENATOR DANIEL J. DALTON (Chairman): Ladies and gentlemen, we'd like to get the public hearing started. The subject of today's public hearing, solid waste incineration, is one of the most significant environmental issues facing our State. It is significant because of what it will cost, well over \$3 billion, which puts it in the company of the State's Hazardous Waste Cleanup Program and Wastewater Treatment Program. It is also significant because of the complex environmental and public health issues associated with properly burning massive amounts of solid waste and safely disposing of residual ash. It's significant because the decision to burn, is essentially irreversible. Once the financial commitments have been made to these incinerators, we will be ultimately dependent upon them, and we will have no choice but to use them.

If these incinerators work well, they will obviously play a major role in New Jersey's solid waste management strategy. If they don't, we will face an economic disaster not unlike that which befell the nuclear power industry. In any event, building these incinerators is a gamble, perhaps the biggest public policy gamble the State has ever made.

The reality in 1989, however, is that incineration will play a role in the State's solid waste management strategy.

One plant is operating, and several more are well along in the planning or construction stages. I do not believe we can turn back the clock on these projects, but I do think that what Newsday called the "rush to burn" must be tempered in this State.

Some of this tempering has, I believe, already occurred. Certainly, nobody supports the concept of a burner in every county, which was the State's tacit policy as recently as several years ago.

In this light, I think it is time for a complete review of the State's incineration policy, not for the purpose of casting blame, but for the purpose of finding ways to

minimize the environmental and economic impact of incineration, to seriously encourage alternatives to incineration, and to keep incineration to an absolute minimum. Some of my ideas are expressed in the memorandum that I have distributed, but I'm certainly willing -- and very willing -- to consider other approaches. This is why we're having the hearing today.

I also believe that we must face the fact that there is significant and serious opposition to the State's incineration policy.

Some of this opposition relies on simplistic sloganeering -- which I hope we can avoid today -- but most of this opposition is sincere and raises important and valid points. I am willing to take serious criticism of incineration seriously, and I hope that is true for everyone here today at this meeting.

I would also like this meeting to mark the end of the use of the euphemism "resource recovery." If what we are talking about are facilities at which hundreds or thousands of tons of garbage are burned each day, let's call the facilities what they are: incinerators. The fact that these projects also cogenerate small units of electricity, in this light, is irrelevant. If the policy of solid waste incineration is to gain the public's acceptance, it must be explained in honest and accurate terms, which, in this case, means calling a solid waste incinerator a solid waste incinerator.

Everyone knows that it is the burning of garbage which makes these plants controversial -- with the virtual lack of opposition provoked by cogeneration projects using natural gas or oil as fuel. Therefore, in the interest of honesty, I would ask that those testifying today use the words "incinerator" or "incineration" when they are referring to a facility in which solid waste is burned.

I would like to introduce the other members of the Senate Energy and Environment Committee that are here. To my

left is the Vice Chairperson of the Committee, Senator Cathy Costa of Burlington County. To her left is Senator John D'Amico of Monmouth County. We have Al Matioska down the end from the Office of Legislative Services; Madelyn Rumowicz to my immediate left, and Mark Connelly from OLS to my immediate right.

I would like to start, if I could, by calling on the Commissioner of the Department of Environmental Protection, Chris Daggett.

Commissioner, welcome and thank you for your attendance.

**C O M M . C H R I S T O P H E R J . D A G G E T T:** Good morning. Thank you for the opportunity to testify today.

With me today to my right is Dr. Donald Deieso, Assistant Commissioner for Environmental Management, and John Czapor, Director of the Division of Solid Waste Management for the State.

We welcome the opportunity to talk with you today on the critical issues affecting the future of solid waste management in New Jersey. I'd like to begin by commending the Committee for its foresight in initiating discussions on this important and controversial problem in an open and constructive forum such as this. I'd like to use this opportunity not only to present to you the Department's accomplishments, its problems, and the status of our solid waste programs and activities, but also to accelerate the ongoing dialogue between the Department and the Legislature in order to better plan for the future together.

Specifically, my staff and I would like to discuss four general areas: State self-sufficiency, our four-pronged solid waste strategy, regionalization and technical issues currently facing the solid waste program in New Jersey.

I will address the first of three issues, and Don Deieso will address the fourth.

As I'm sure you all know, the State has adopted as its policy solid waste self-sufficiency by 1992. By this statement, we mean that it is our goal to have this State dispose of all solid waste within our borders by 1992. The cornerstone for meeting this goal is the four-pronged management strategy of waste reduction at the source, recycling, resource recovery, and landfilling, all of which I will discuss later.

Presently in New Jersey over 50% of our solid waste is exported for disposal to states such as Pennsylvania, Ohio, and West Virginia. These states and others are seeking, as we did in the past, by way of legislation or regulation, ways to restrict the flow of New Jersey waste into their states. This basic fact is what is driving our policy of self-sufficiency and which, in turn, is reflected in our emphasis on increasing source reduction, recycling, and the siting and permitting of disposal facilities.

I call your attention specifically to the states of Pennsylvania and Ohio, which receive approximately 90% of New Jersey's exported waste. Pennsylvania recently passed legislation, SB-528, during the summer of 1988. This bill revised the state's statutory structure for solid waste management and recycling. This bill, the Municipal Waste Planning, Recycling, and Waste Production Act, makes county government responsible for both facility planning and waste flow control.

The Act requires counties to submit waste management plans by 1991. These plans are similar to those developed by our own counties, in that they must include information on waste generation and origins within the county over a 10-year period and descriptions and capacity of current disposal facilities.

In the State of Ohio, the Governor considered signing legislation calling for a ban of out-of-state waste. Advised

that such a ban was not constitutional, the state again mirrored our program by establishing solid waste districts that are responsible for handling their own wastes. This plan also ties the generation of wastes closely to capacity which could work to reduce unplanned waste streams from entering a district.

In addition, Ohio has new regulations which became effective January 1 of this year. These regulations require haulers to sign consent forms prior to transporting out-of-state waste into Ohio. This is being challenged by the National Solid Waste Management Association. We cannot be sure of the outcome of this case, and if the challenge fails, and if Pennsylvania and Ohio close their borders to our trash, it is not enough simply to say, "We will ship it further south or further west."

It becomes evident, through this and other information, that New Jersey can no longer safely rely on out-of-state disposal options. Even with available disposal capacity at out-of-state facilities, disposal at these locations will surely come with a high and unstable price tag.

Additionally, new proposed regulations for Subtitle D of RCRA will, when adopted, cause many out-of-state landfills to close and will increase the costs of operations of others. Through the implementation of the self-sufficiency goal, we think we can establish both guaranteed disposal capacity and predictable disposal costs, a luxury enjoyed by only a very few or very small portion of the State.

The information we are supplying to you today shows that although we are approaching our goal, it has been a very slow and a very difficult process. There are still many gaps. I refer primarily to those counties which have yet to address their solid waste disposal situation by siting a landfill or resource recovery facility. It is evident that time is running out.

I would like to urge the development and passage of legislation which would establish penalties for those counties which are not on their way to achieving self-sufficiency.

We had suggested, over a year ago, through testimony on legislation, that nonperforming counties be penalized in some way for their lack of action on this pressing environmental issue. The legislation I am referring to is Assembly Bill No. 462 by Assemblyman Shinn, which is presently awaiting consideration in this Committee. This bill was first introduced in March of 1987. Although the solid waste situation has changed since this bill's introduction, most of the issues it seeks to address are as relevant today as they were then.

This bill would grant to the Department additional powers to implement emergency plans on behalf of counties during a declared state of solid waste emergency. The passage of this bill, with amendments, would appropriate additional moneys to the Department education programs and administration, as well as establish penalty provisions for nonperforming counties. Equally important, this bill would give us the needed authority to assure compliance with our goal of self-sufficiency. Action on the bill by you and your counterparts in the Assembly could help to secure the future of solid waste disposal in New Jersey and put the necessary pressure on nonperforming counties to implement their solid waste plans.

The fact that New Jersey has been a net exporter of solid waste may result in some yet to be realized consequences. For example, New Jersey could conceivably be held partly responsible for contamination which may be discovered at an out-of-state landfill in the future. This, in itself, is a strong case for self-sufficiency and discontinuing our reliance on out-of-state disposal facilities.

Turning to the four-pronged management strategy, as stated earlier, the cornerstone of New Jersey's strategy toward achieving self-sufficiency is the strategy of waste reduction, recycling, resource recovery, and landfilling. All four elements must be present if we are to effectively manage our solid waste. Waste reduction, the newest component of the solid waste management strategy, calls for the reduction of waste at its source. This can be accomplished at a variety of levels from manufacturer to consumer, and from distributor to retailer.

Presently, the Department is identifying specific measures which can be initiated at these levels to achieve waste reduction. Such measures, over time, will result not only in reductions of solid waste, but in the conservation of resources, and possibly a reduction in operational and product costs. Waste reduction initiatives are already under way in New Jersey, and with continued research and coordination, in conjunction with such groups as the Coalition of Northeastern Governors and the Rutgers Department of Continuing Education, the Department can pursue a public information program similar to what we have done with recycling in New Jersey.

The second prong, recycling, offers the most immediate relief from our solid waste disposal problems. Most of the counties in New Jersey have approved plans in place, and we are fast approaching the legislatively mandated goal of 25%. I must note that this percentage is reflective only of the recycling rate for the designated recyclables such as aluminum, glass, and paper. Other materials are being recycled in the State, such as construction debris, batteries, oil, and plastics, and with the passage of an emergency rule, all leaves are being removed from the waste stream and are being composted. These materials would serve to increase the actual percentage rate in New Jersey.

Currently, the Department is looking into expanding the list of designated recyclables, the development and expansion of technology to recycle new materials, and promoting the purchase of recycled products. Recycling is closely tied to resource recovery and landfilling, the final two stages of the management strategy. Specifically, with the exception of Warren County, all resource recovery facilities in the State are sized down to account for the 25% recycling goal.

Additionally, the possible expansion of the designated recyclables would keep additional noncombustible materials out of the landfills, such as tires, batteries, and demolition debris.

The third component of this management strategy, resource recovery, will serve to: 1) greatly reduce the volumes of waste requiring landfilling; and 2) to recover energy.

These facilities, specifically mass burn incinerators, have been the subject of many debates over the past few years, but it must be noted that New Jersey has some of the most stringent environmental regulations in place which must be met when permitting these facilities.

Additionally, these facilities will be utilizing state-of-the-art technology and will be constantly monitored by the Department.

Landfilling, the fourth and final stage of the management plan, will be used for the bypass materials and the ash from the resource recovery facilities. New landfills in New Jersey have very rigid design standards, including double composite liner systems, and leachate collection and methane gas collection systems. These facilities will be closely monitored by Department personnel.

Now, with respect to regionalization-- As the State moves toward self-sufficiency, the concept of regionalization is receiving much attention. The solid waste management process has been ongoing, albeit slowly, in many parts of New Jersey, since 1975.

It is unfortunate that this concept has only been seriously considered in recent years. There have been many questions raised as to whether we will need the number of facilities that are currently being planned. I must admit to you that the Department is asking these same questions. Regionalization should seriously be considered as an answer to this question.

The Department generally endorses regionalization, but it can only be successful and practical if it does not impede the progress already made by those counties that have taken the process seriously in long-ranged solid waste planning and actual facility development. Any move to regionalize must be done with a mechanism in place to ensure that the performing counties are in no way penalized through this process or that the nonperforming counties are rewarded. And regionalization should be fully explored in each instance, because there are indeed some drawbacks, and Don Deieso will get into some of those details in the technical discussion in a moment.

As you know, the Department is very limited in its powers to initiate regionalization. At the present time--Historically, when the Legislature was crafting the Solid Waste Management Act amendments, Chapter 326, a rigid planning process was established with most of the key responsibilities, such as technology selection and siting falling to the counties. At that time the State's 21 counties recognized themselves as regions, and solid waste planning was beginning to take place only within the confines of their borders.

More recently, however, we've begun to look beyond borders to a broader regional approach.

In recognition of the fact that we may not need 21 resource recovery facilities, and 21 ash landfills, there have been several attempts at regionalization among counties. These efforts have received the full support of the Department. In fact, the Department has worked closely with these counties, so that regionalization may indeed become a reality.

We can only offer leadership and guidance, which we have done. The ultimate planning, technology selection, and siting authority remains vested with the counties.

In summary, while we support regionalization and believe the Department should fully assist the counties, particularly with regard to ash landfills, we do not believe it would be prudent to reverse 15 years of established policy which places siting authority at the county level. I'll have a few other comments toward the end, but, at the moment, I would like to introduce Don Deieso who is the Assistant Commissioner for Environmental Management and Control. He'll present some of the major technical issues currently facing the solid waste program in New Jersey, such as alternative technologies, technical issues related to resource recovery facilities -- specifically in air, water, and ash -- as well as future plans for waste reduction and recycling, and we'd be happy at that point to answer any questions you have.

**A S S T. C O M M. D O N A L D A. D E I E S O:** With the help of an overhead projector, I would like to just carry you through some of the comments.

The first subject we address that has its root in technical matters is alternate technologies to burning. This issue is probably at the heart of what makes the anti-incineration thoughts controversial, because there is the thought that DEP and the State are moving to burning, and we have not considered alternate technologies.

Our reasons, and our logic for alternative technologies are: First, we demand a proven track record. We demand a record in the U.S. There have been a number of technical proposals that have come to us: Trash is made into pellets and converted into food. You name it, we've heard it. We've had proposers who would carry it away to other countries for disposal as well. As far as the alternative technology, we look at the track record first. It has to be documented, not alleged.

The second point: It has to be available on a commercial scale. In the engineering world, it's one thing to show it in a small unit on the top of a desk, and quite another to scale it into major size. We've had some awful history in this field in which going from a laboratory idea to full scale has cost the City of Baltimore millions of dollars and is a failure. And that system was a paralysis system, in which solid waste was taken, along with tires, and made into microcarbon fuel. This goes back about a decade. That plant stands unused, an absolute testimony as to why engineering must be very carefully done before we move from the desktop to major-scale production.

The third and the most important point, is the product. From any alternative technology, or the process that takes municipal garbage in and produces a pulp and paper product at the end that is then offered for sale to the secondary paper industry, one of the most serious concerns that we have there is that garbage -- municipal garbage -- is a very unpredictable material. We have records that indicate there is illegal disposal. You can have materials put in that solid waste: PCBs, insecticides. The municipal solid waste incinerators are designed so that through high temperature they will destroy anything that's there. Unlike these processes, where what comes in is simply sorted and then offered for sale as a fiber product, paper, that may come in contact with the consumer in the future, if there is dioxin, if there are PCBs or pesticides or organics, that process doesn't remove them. It simply passes them through to the end, and that may enter commerce as a number of paper products, and that gives us great concern.

The fourth is the same point. We've got to know the process. We have to understand what environmental consequences there are.

These are painted today by the advocates as having no environmental consequences. That's not true. Every process has an environmental consequence. We have to understand it. We have to regulate it, and put permit conditions on it, so that we fully understand.

In the alternative technologies, today you have heard and will hear the notion of total recycling; you can recycle 100% of the waste stream. That is technologically not happening in the world today.

It is a wonderful dream. It serves as a goal, and we should move toward it. But it isn't happening anywhere in the world. We have rates of 50% for some nations. Japan is one. We have individual communities in the world with 60% or 65%, but those are extremely aggressive measures.

The second alternative technology you'll hear about is composting. Well, we have supported composting of sewage sludge for two decades. We have funded sewage sludge composting, and it's being done large-scale in many counties in this State. We have mandated composting of yard waste, leaves, for instance, and to those on the Committee, you know in your districts, your municipalities will set up aggressively to have leaf composting.

Our record on composting stands. We need to make the point very clear: Just because we have successfully composted sewage sludge and leaves, doesn't mean you can successfully compost municipal solid waste, and municipal solid waste isn't being composted anywhere in the world today. The reason is, there are technological limits to what we can and what we can't do.

So, it's a wonderful notion to say we can do it. But I suggest to you that the facts offer a different picture.

Materials recovery -- the processes that take our garbage right off the curb. These are the most promising. There are several in that category that offer a lot of hope,

and we encourage them and are studying them. We don't think they are going to come to New Jersey in short term, or the next five years or more, and become an integral part--

SENATOR DALTON: I missed that.

ASSISTANT COMMISSIONER DEIESO: Those that take out the trash at the curb, sort out glass, ferrous metals, nonferrous metals, and then process them, these are promising ideas.

In our judgment, they are not New Jersey's answer to the crisis, because they are rather immature in answering a number of these points and a number of our concerns. We encourage them. We think they will play a role in New Jersey's solid waste future, not in the imminent future, and not the solution that can be offered today in lieu of mass burn or RDF.

I close by saying, in this scheme, and our concerns, we have weeded out proposals as outrageous as lasers, that was a dominant theme in Ocean County a year-and-a-half ago where a community and a county Freeholder Board were rushing to laser technology. Gasification was a process that was offered in one of our northern counties, Morris County, and when subjected to this analysis, it, too, fell from consideration.

So, these are wonderful ideas. They are ideas for the future. We should position ourselves to encourage them, but I suggest to you, they are not here today. They are not available today. New Jersey's crisis is higher today.

Next we want to go to the heart of some of the criticism of incineration, and we use no euphemism in this discussion. There have been four major issues raised.

SENATOR DALTON: Could you just address one thing, the ORFA?

ASSISTANT COMMISSIONER DEIESO: ORFA is one of the materials technologies. One of the concerns we have about the materials processes -- not just ORFA, all of them -- is that you have at the end a product, a product that they would offer to the secondary paper market.

For instance, that product contains plastic. It contains paper. The concern we have about it is that municipal solid waste is unpredictable. You never know day-to-day what's in it. We have ample evidence of illegal disposal of material in municipal solid waste. You can have hazardous chemicals disposed of: Insecticides, pesticides, as well as paint, and paint thinners. That material, once brought into those facilities -- recovery facilities -- will emerge at the end as a secondary paper product, and as such, will then enter commerce.

Now, we have asked several of those companies to share with us the analysis of the final product to let us understand the emissions from these processes, so we can make a better judgment. And we've asked them to show us their long-term contracts for the sale of their material product. We have been denied in every point with the argument that that is proprietary information that they cannot reveal at this time.

I say to you: That's an unacceptable answer to us. Before we would endorse any technology in the State, we'll subject it to all of those analyses, and we'll have those questions answered so we can say to a county, "Go ahead. It's a sound technology. We encourage it."

Incineration -- we move to these four points: Air emissions was raised as the major concern, and the fact that they use water is number two. They are oversized is the third. And, last, that they produce a toxic ash that's going to be a concern. We'll go to each of them individually.

We'll go to the air emissions first. What we need quickly, in a second, garbage, in turn, subject to temperatures as high as 2800 degrees Fahrenheit. Those temperatures are sufficient to destroy organic chemicals of any kind. So, if we do have PCBs, paint thinners, or pesticides, that combustion chamber is monitored to see it is properly disposed. We then produce the electricity that you mentioned in your comment,

typically in the order of 50 or 60 megawatts. These will supply enough to supply 10,000 or 20,000 residents in the community with power.

I just offer that to say it's not a trivial amount of power that's produced. The gases go through a particulate device, electrostatic precipitator, and then a scrubber to remove acid gases. Those two devices make New Jersey among the toughest regulators in the nation for these facilities, and they are, in our judgment, ultra, ultra clean. There are controls here.

And the last point I make is that we immediately shut the system off. Garbage will stop going into the combustion chamber. The combustion will stop if, even for a minute, smoke appears. It is continuously monitored for any of the temperature requirements we put in that furnace. The moment that happens, the unit shuts down and doesn't operate again until we physically visit the facility and see that they are doing what they should. That's an important principle.

It's been suggested by some that these facilities can operate for weeks or months without proper treatment to the air and accumulative effects of wear?

A very smart way to look at this issue-- Long black lines (referring to a chart) summarize the amount of respective pollutants produced by all of the major sources in our State: particulates, volatile organic substances, carbon monoxide, nitrogen oxides, sulfur dioxide, and lead.

The black lines underneath are little bar lines that are so small. The first one is the amount of particulate that 20 resource recovery facilities would produce. With respect to particulate, it would produce one-half of 1% of the total amount of particulate that all of our industrial resources produce. One would produce 0.03 of 1% of all of the particulate emitted in the State. And, in similar fashion with organic substances, 20 resource recovery systems would produce

0.2%. One of them 0.01%; carbon monoxide, 0.02%; nitrogen oxides, 0.25%; sulfur dioxide, 4% or 0.25% for 20 facilities; and last, lead, 3.6% of all the lead emissions in the State.

Now, we offer you this to give some perspective that even if we were to build 20 -- which we don't think is the case today-- If we were to build 20 of these facilities, the extreme, the total contribution of these facilities to the overall air quality in the State, while of concern to us, still represents a very small fraction, and, in our judgment, we continue to say that the focus placed on incinerators and the air pollution issue is masking the most serious pollution issues we have underway to control those large black lines and reduce them.

So, the energy in the air pollution-- Most of the vigor and energy is spent by those residents of our State. When we begin control measures, we will bring the others into line.

The next issue we need to address is the water. It's been suggested by some that these facilities use inordinate amounts of precious drinking water, aquifers, and surface water. In similar fashion, we have summed up for you in many of our counties the total water usage. That's the checkered bar down at the bottom -- the amount used by the resource recovery facilities.

In short, those facilities represent a 10th of a percent of the total water used in the counties. You must understand, then, whether we say it uses water-- Of course, it uses water, but, also, in similar fashion, the total amount used in those counties-- If we were to stop one of these facilities, it isn't going to change the water picture faced, but it does leave us with the problem of disposing of our solid waste.

The next issue is one of ash. You've heard it referred to in some instances as toxic and hazardous, and that

somehow that represents a big environmental threat. Let me be clear: The ash is tested at Warren. The ash will be tested at all of our resource recovery facilities because we put it in as a permit condition. We're testing ash in Warren County at a frequency of daily. Other states do that monthly or twice a year. We have been the most aggressive. We know what's happening in Warren, because we demanded that the testing be done.

The ash at Warren, if that tests hazardous and fails the test-- More correctly it is characterized as hazardous, as being disposed of in a hazardous waste facility like the other 11 million tons of hazardous waste in this State. It isn't spread through the community. It isn't inappropriately landfilled.

In short, it, like all other hazardous waste in our judgment, is being properly disposed. So, somewhere we need to make the point that if this facility does produce an ash, an ash that fails the test, it is disposed of in a proper way and poses no environmental concern. But we go more than that. We look to a time when we can recycle and reuse some of this ash, and that's going to be possible when we separate out the materials that are causing it to be hazardous.

A recent EPA report, as recent as last month, indicated that batteries -- the dry cell variety we use in our homes -- are a major source of cadmium and lead, and these are the two elements that cause these to fail requirements. We have begun, and did so almost six months ago, a program to decide how best to remove batteries from the waste stream. While it seems a simple issue, it can be as complex as having a battery-- Before one is sold to you, you return the old. It may be as complex as having processes set up just to recycle old batteries.

In the short term, though, what's clear to us is that we'll need your help in a piece of legislation that may

encourage, if not mandate, that those materials be taken out of the garbage can and in some way segregated to let it become part of the recycling stream. There are solutions to making that ash more benign. It means getting out of the solid waste what's offensive, and we're beginning to get across a number of those messages. We look to a time when, as in Japan and Germany, ash, once properly produced and segregated and tested, if it passes the test, can be used in construction material and aggregate, so that the overall cost of these processes will be more favorable.

The next issue we touch on is the question of sizing, and let us be direct on this one. Warren was one of the earlier plants in the State. That plant was sized before we had mandatory recycling, before we were confident that 25% recycling would be a goal and would be achieved. Warren did not have 25% in its sizing consideration. All of the other facilities do.

Another factor was, we had illegal disposal. We had folks who were finding it cheaper to go over to Pennsylvania, rather than go to the Warren plant. Warren, today, is a much different story than what it was four months ago. We have been very effective in closing the illegal disposal route. We are proceeding through the Hunterdon route to get it as much trash as it was promised. We look now to that plant being very different, being now at its capacity.

The last point, and then we are open to any other questions you might have, is source reduction and recycling; the two other leases of the State's strategy. We are and have spent about a year-and-a-half, on source reduction. We produce too much -- seven pounds a day -- in the State. Trying to cut back is not going to be an easy chore. It's going to be quite a recycling-- We do lead the country. We're the first State with mandatory recycling, and we will continue to endorse it. To go to 50% is going to mean more than passing a law. It's

going to mean creating a market. You can recycle. If no one wants your material, it's for naught. You can recycle, but if you can't get it to a distribution section-- We need to be a little more methodical and deliberate in creating those markets.

The last slide is just a summary of where we are. Commissioner Daggett noted self-sufficiency, a four-pronged approach. We need to continue to develop the projects that are in the pipeline and planned. Otherwise, in concert with out-of-state disposal, we will have garbage in the streets without a way of disposing of it.

Regionalization, we need to spend a second on. Building large facilities has as many environmental concerns as building a number of small ones. And, while it seems logical to build one large one instead of four smaller ones, in our judgment, the number of trucks that would then come into that one large facility would be quadrupled. That is an air pollution issue we need to address as well. Road networks need to be expanded.

Secondly, in our judgment, we'd rather have the pollution from four smaller facilities dispersed over a larger area, than to have it all concentrated, effecting a footprint under the stack that is a rather small one. It doesn't argue that regionalization should be eliminated. What it does say is, it is not a panacea. There are as many drawbacks that need to be understood as are the number for facilities. With that, let me stop.

COMMISSIONER DAGGETT: Let me say, what we're really trying to say is, this isn't a time to really take pause and maybe stop, or go for a moratorium.

The fact is, we think we've got to continue to move forward on this process. Indeed, we may have to make a few in-flight corrections. We have to press for things like regionalization. We have a waste strategy in place. I think it's been effective. If you look over the last few years, we

have sited a number of failures, and we have gotten them under construction. We're moving forward for the first time in some time. I think we need to continue that, and I think that we can only do that by moving forward and not stopping through some sort of a moratorium or other way to take pause.

With that, Mr. Chairman, I again appreciate the opportunity to speak to you today, and we'd be happy to answer any questions that you might have.

SENATOR DALTON: I appreciate your testimony. Questions from the members? Senator Costa?

SENATOR COSTA: I've heard two things. Are we saying we're better off building several plants, incinerators, rather than in regionalization, having one big plant itself? That may be more harmful. Is that what you were saying?

ASSISTANT COMMISSIONER DEIESO: Senator, what we say is that the notion that regionalization is going to make things better in the environment is one that we need to caution. In some instances that may be true. In others, it may not be.

In others-- I offer one county as an example. Bergen today is planning a 3000-ton resource recovery facility. If we were in Bergen, we would say to Bergen, "Incorporate with Essex and Hudson and Union and build a 10,000-ton a day facility." The air quality in that portion of the State directly under that Bergen plume would need to be studied carefully.

Given that situation, it is better to have the number of small facilities geographically separated. In addition, the road network and the number of trucks bringing garbage to those facilities would then be a consideration on the roadways. We can have congestion; vehicles idling producing carbon monoxide, leading to the ozone problem. It isn't one approach, saying, "Build one in each county." We don't know that we should build resource recovery in each town.

The logic they have in Japan is, the shorter distance you have to transport it, the better it is environmentally.

COMMISSIONER DAGGETT: I think on this whole thing, we're saying, "We don't think we need to have a prescribed number of facilities in the State." Somehow, what we've got to do is take it on a case-by-case basis.

Just to underscore Don's points: In a rural county, for example, you may not have the road network to support a regionalized facility. You may have some air quality problems in some sort of significant way by having one major facility. We have to look at it on a case-by-case basis. Where regionalization makes sense, we will support it, and have supported it.

Resource recovery through mass burn facilities-- We have actively been involved in that. Some of those have fallen through after we have come close to putting them together, but it's something we will continue to explore.

SENATOR COSTA: My question started out, as Commissioner Daggett spoke -- and speaking of counties, not taking away what has been happening in 15 years where counties select the sites for these facilities-- We have in Camden County three incinerators going up within close proximity of each other. I was leading into that, as to why we have three? Just because each one is state of the art-- And this is good, this is state of the art, so we okay it, and then you say the same to another one. Where do you stop, as to how many you're going to say yes to? What impact does it have on the surrounding areas? Until you brought up about the regionalization, that really terrified me further.

All I can see is a monster out there affecting many. Which one is better? Is it better to go with single ones? But where do you stop? Do incinerators, approved by counties, no matter how many-- Are they going to get approval by the State?

ASSISTANT COMMISSIONER DEIESO: First, Senator, let me say: In our judgment, a county is a region. It may not be as large a region as some would like, but a county is a region. A county that involves Camden, with its large population--

SENATOR COSTA: The county's approval process is by councils. What I was speaking of is, when you have a number of incinerators, just because you deem them as state of the art, that's what they are going to build?

Do you just approve them anyway?

ASSISTANT COMMISSIONER DEIESO: Let me assure you of two things: One, the idea in Camden-- You have two actually in Camden County. You have one in neighboring Gloucester. No doubt that's a concern.

SENATOR COSTA: They are in close proximity to each other.

ASSISTANT COMMISSIONER DEIESO: No question. We do perform air models, and those air models are computer run. They typically cost \$1 million per facility to do. These air models will be our best estimate of what impact one facility will have on another.

I incorrectly said that what impacts on the residents in the area will influence the impacts these facilities will have on one another. We go further. We model every industrial source in the area before we approve one of these resource recoveries. We'll look at refineries, industrial plants, and commercial operations. And, in our model, we model those emissions to see if the addition of this additional incinerator is going to put the air quality and/or health consequences in jeopardy. Only when the answer to that is, "no" do we approve those facilities.

SENATOR COSTA: Take the Pennsauken incinerator. That really affects Burlington County. There are a number of plants along there. You have already looked into it and felt that they would not have a severe impact, or any impact. What kind of an impact -- what do you call that? At what level do you say, "Hey, it's not good any more"?

ASSISTANT COMMISSIONER DEIESO: We make a judgment using risk estimates of what is, and what is not, an acceptable

risk. The risk emanates with use for those facilities. If that discharge from that stack or from a new refinery or expansion in an existing chemical plant-- It's not just these facilities. Any emissions in that part of the State-- If the emissions from that stack cause a risk of more than one in a million additional cancers, then that facility is not approvable.

SENATOR COSTA: How do you come to that--

ASSISTANT COMMISSIONER DEIESO: That's what our models do for us.

SENATOR COSTA: We don't want to have the cancers first.

ASSISTANT COMMISSIONER DEIESO: We have estimates. We put permit conditions on that stack before the first brick is placed. So, to think that we wait for them to operate isn't true.

SENATOR COSTA: You're telling me, no matter how many smaller facilities -- even though they are in close proximity -- you have given approval based on the fact that they will not impact adversely on the citizens?

ASSISTANT COMMISSIONER DEIESO: That's right, within the limits of what we said with the health risk. We begin with the principle -- this is where this statement is misconstrued -- that every action we take has an impact. We don't sit before you and say, "An incinerator has no environmental impact or no environmental health issue."

What we say to you is, it is minimal and passes this acceptable risk that we've established for this and for drinking water, and for the air you breathe in your home, and for any other risk estimate in day-to-day life.

COMMISSIONER DAGGETT: We've got to keep this in perspective. There are some 80,000 air emission sources in New Jersey. They selectively add up. From the chart, Don showed you some fairly significant numbers in terms of the air

emissions and the amount we mentioned, particulates and volatile substances, that probably underscores, as much, a need to crack down on the other 80,000.

I don't want to imply that we may not be working just as hard or harder on resource recovery facilities. What we ought to be doing is putting our emphasis on identifying all those other sources and continuing to ratchet down the air emission of those. The incremental load from the resource recovery facilities is just very, very small. To focus only on those, particularly when they are helping us solve what amounts to a crisis in this State with respect to solid waste-- We're arguing that when you put it in the whole perspective -- coupled with the fact that we do these air impact studies -- we think those facilities are not going to have any kind of measurable impact.

SENATOR COSTA: Are you aware that there's been another one built near the school in Pennsauken?

ASSISTANT COMMISSIONER DEI'ESO: Perhaps a small apartment house.

SENATOR COSTA: There's a small one they use to burn dead animals right next to the school. There are more than just the ones that people are asking for permits for.

COMMISSIONER DAGGETT: Before you go on, that facility is probably permitted.

SENATOR COSTA: Beg your pardon? It's been there for years.

COMMISSIONER DAGGETT: It doesn't matter. We'll get the name from you, but I'm quite sure that will have a permit associated with it. And that will be taken into account as part of the modeling with the resource recovery facilities, as they are being built.

SENATOR COSTA: When you're speaking-- It kind of scares me when I think of regionalization. That's great. We should all regionalize. But, there is the fact it may really become a monster.

I'd like to know, I'm not up on the incinerator that's been built in Essex County--

ASSISTANT COMMISSIONER DEIESO: Twenty-two hundred-and-fifty tons a day. It's under construction in advance of schedule. If you have an opportunity, Senator, to pass on the Turnpike just before Exit 17 -- 15E, it's immediately adjacent to the Turnpike. You can see it.

SENATOR COSTA: That's equivalent to three incinerators that are being built in the Gloucester area?

COMMISSIONER DAGGETT: Take the tonnage--

ASSISTANT COMMISSIONER DEIESO: Actually, one. Your Camden facility is about 1050, Pennsylvania is about 500 tons a day, and Gloucester is 500. So it's about equal. That facility which is in excess of 2250 is about equal to the combined capacity of those three.

SENATOR COSTA: How will that affect the plume?

ASSISTANT COMMISSIONER DEIESO: After we did the models years ago, we were convinced that it passed the same risk test that we-- Another point, as the Commissioner noted, and I want to share with you: These facilities have an obligation in the immediate and in the longer term to show us offsets for these pollutants before they receive a permit. The amount that they produce, they must show that a previously retired plant has now contributed, and it's a notion, almost, of a pollution bank in which the right to pollute is banked and kept by our Department.

Before we issue the permit and approve it, they must show us that they have another older plant that's been retired with the equivalent amount of pollutants that have been offset. We go further. We require in it a ratio of two to one. So, if a plant retired five years ago, this plant must show that they required 100 tons of particulate -- in fact, 200.

SENATOR COSTA: What happened to the anaerobic digestion and baling, all the different areas where we can get rid of solid waste?

ASSISTANT COMMISSIONER DEIESO: The plant in Baltimore that we talked about was the anaerobic process. It failed when it went large scale. That's one of the reasons we're so cautious about alternative technologies. They are great ideas, but when laws of physics and chemistry in the laboratory are applied large scale-- The moment you build them up to large scale and take the waste as nonhomogeneous municipal solid waste, things start to fail.

SENATOR COSTA: Could we say maybe our response should be on a small scale, as far as incinerators in the State, rather than large scale?

ASSISTANT COMMISSIONER DEIESO: What's fair to say on that point is each must be evaluated on a case-by-case. There may be some regionalization. Some of the counties in the west, if they are each producing 200 or 300 tons a day, there may be some advantage when we study it to regionalize there. But the thought that regionalization, multi-county regionalization, is the cure--all is what we say to you doesn't work.

SENATOR COSTA: Perhaps we can also use some of those studies as another means of getting rid of our trash on a small scale? Is that being taken into consideration?

ASSISTANT COMMISSIONER DEIESO: I think it's fair to say we look at those other and new technologies as coming into the market in the next five to ten years.

SENATOR COSTA: We're not married to incineration, and that's it.

ASSISTANT COMMISSIONER DEIESO: We're proceeding in a way to be fair and accurate. That will tie us to that technology for a period of time. What we have, though, is the assurance that, in that technology, the environmental issues of concern are addressed, and that the process is flexible enough to be implemented in the future as we learn more to fix it.

The alternative technologies will step in and, in our judgment, may supplement and be a complement to incineration -- one phasing out, the other beginning to phase in.

SENATOR COSTA: Thank you.

SENATOR DALTON: Senator D'Amico?

SENATOR D'AMICO: Thank you very much. To try to save as much time as possible, I'll begin by stating a proposition or a set of assumptions and give you an opportunity to indicate whether you agree with those or not.

One is that of the various methods of disposal of solid waste, that incineration or resource recovery technology is the most expensive of the various options that have been considered. And, that, assuming that the markets are available, that recycling would be, if not the cheapest, certainly a less expensive alternative to the extent that it can succeed. Is that a proposition that you can agree with?

ASSISTANT COMMISSIONER DEIESO: First, I think what's fair to say, when we say, "Is incineration the most expensive?"-- I would say to you, of the proven technologies with the checklist that we've offered you, yes. And let me tell you why it's the most expensive. Because in our judgment it is the most environmentally sound. It's expensive because it costs money to run the facility at 2800 degrees, to get more air pollution control on it, than any other facility in the country, of any other type.

It's the most expensive because with testing the ash, and we have to dispose of it-- If we test it and it's hazardous-- If we say yes--

SENATOR D'AMICO: I wasn't raising that issue. I was taking it at its face value in the manner that you feel, with all the controls, it obviously ought to be placed.

ASSISTANT COMMISSIONER DEIESO: Part two, now: Would recycling then be the cheapest if markets were available?

SENATOR D'AMICO: Or cheaper?

ASSISTANT COMMISSIONER DEIESO: Cheaper, yes, but we need to pull back from an excursion into the future and say, are markets available, and what prevents them from becoming

available? It isn't an on and off switch, Senator. Let's recycle plastics, and this plastic today-- That market development is one that is going to take years to establish. Some recycled materials are not going to be cheaper to recycle. We may recycle because it's environmentally sound, not because it makes economic sense.

Some of the plastics fit that category. We may decide to recycle plastics because they are made from resins produced by crude oil in our environment. It's silly to waste crude oil in the production of plastics, and it's cheaper to produce other materials.

I think it's one of these areas where we say to you, "We're all for recycling." We encouraged it, and have the first program in the country. But to go from 25% to 50% is more than just the doubling of a number. It means that we're going to have to create the markets and the separation facilities. We're going to have to recycle the materials that heretofore haven't been thought of.

SENATOR D'AMICO: You now arrive at my next question, which is, what are the materials? In countries like Japan and the other communities which you have referred to, some of which have attained 60% levels, what are the materials that are being removed from the waste stream in those places, that are not being removed from the waste stream in New Jersey?

ASSISTANT COMMISSIONER DEIESO: On the Japan point, just because there's so much misconception about it-- Japan recycles 50%. Japan burns 68% of what remains. Japan has 1850 incinerators, 350 of which are resource recovery.

SENATOR D'AMICO: Let's talk about what they are recycling.

ASSISTANT COMMISSIONER DEIESO: I want to respond, but I want to respond in balance. When we look at the fact that Japan recycles 50%, Japan's residents reproduce seven pounds a

day. They produce three. The type of material they produce in Japan in the trash can is not the same material that we produce here.

We have an awful lot of disposal plastics. We have an awful lot of disposal paper. They do not. So, it's one thing to say you want to recycle newspapers, and we're doing it, and another to say magazines. And we should do so. But, to recycle the paper that your cereal came in or frozen vegetables the night before, the paper that has come in contact with food -- paper, if stored in your garage, which is going to be a source of vermin and vectors for disease, that's a much different question.

I think what we've got when we compare the other countries is, you can do it, and you can do it in small scale. You can do it for little communities, but the thought of going to this State's major cities with 50% recycling, requiring our residents to separate into 12 or 13 categories, which is what they do in Japan-- That homeowner has 13 bins, different plastics, different types of metal cans, different types of paper. We want to move that way. We don't think, though, that we can do so overnight. It will take years.

SENATOR DALTON: Just on that point, and then I'll turn it back to you, the reason that Japan does not produce as much solid waste is-- Tell me why?

ASSISTANT COMMISSIONER DEIESO: Culturally, this is a country that for 25 years has been recycling. They've recycled because they are an island. They've recycled because it's a country that is resource limited. They don't have aluminum. They don't have trees. They don't have the renewable resources that we have. So, their motive for doing it is far more akin to that during World War II, when we were trying to save tin because it was needed for the war movement -- or tin or lead.

So, culturally, and by need, there's a much different--

SENATOR DALTON: Certainly by need, we're akin to Japan, it would seem to me. We're one of the smallest states in the country. We are effectively an island in trying to take care of our solid waste needs. What I'm trying to get at is, does Japan have a policy where they try to preclude waste at the source?

ASSISTANT COMMISSIONER DEIESO: I think, Senator -- and I'm hardly an expert on Japan -- what you have in Japan is an ethic that is longstanding; an ethic in source reduction and in the convenience products. They have years ago weaned themselves, or perhaps in most instances never became accustomed to, knowing a lot of the products and convenience and quality of life that we have in this country. It takes on the dimension-- There they never had it. It's easier to recycle, and it's easier for types of materials recycled.

In this country, it's going to mean pulling back from things like disposable diapers; pulling back from individually packaged beverages; pulling back from individually packaged detergents.

SENATOR DALTON: Thank you.

SENATOR D'AMICO: You're not saying that our homeowners, or the people of New Jersey, are incapable of ending the necessity -- of changing habits of disposal and habits of the use of -- relating to the use of materials?

COMMISSIONER DAGGETT: We're not saying they are incapable of it. Time and time again in New Jersey-- I have to say a couple things:

When you're asking people to change behaviors-- We're struggling in getting people to drive less and use less water. It's very difficult to get them to do that. It's very difficult to get people to recycle. If you have to separate at the source, as opposed to having it all put out at the curb--

I think we're also looking at this in terms of the overall time frame that we're talking in. We're arguing that

there is a clock that is running out there, and admittedly, we don't know how fast it is moving toward the time in which we can't take our trash out-of-state. We've said 1992 is the time frame in which we should have self-sufficiency.

I will concede to you, it might be the year 2000. I don't know. I also don't know that it's not 1991, when Pennsylvania and Ohio become successful. So, what we're trying to do is-- You can get the State to do what's correct. The time frame to get the State to do that will be such that we think we have not, though we don't continue to press for source reduction and recycling as our first two major components, and then the other two to deal with the remaining wastes.

But, it's not something that's going to happen in the next year or two, by the time you develop markets, change social behavior, and do all the things we have to do to get people to generate a significant amount of waste in the first place.

SENATOR D'AMICO: To follow up on that point, I'll make a statement. It really would be in the form of a question, because I would invite your comment. There are examples in this country where the behavior pattern and the method of disposal of significant materials have been changed relatively rapidly, and in a way which has created markets. And I'm referring to those states, nine of them in fact, that have enacted deposit or beverage container deposit legislation. And I would, therefore, ask you now to comment about whether or not the enactment of a bottle deposit bill in this State would create, in relatively rapid order, not only the incentive for consumers to remove significant items from the waste stream -- and I refer particularly to plastic beverage containers -- whether it appears to have been the case in other states that markets that did not previously exist, especially in the area of plastics, might not be prompted to come into existence?

COMMISSIONER DAGGETT: The whole question of a bottle bill has been debated many times, in many different forums, I think, at least to my understanding, and I wasn't involved in all of the debates all of the times on it. Certainly, initially, that was how we ended up with statewide mandatory recycling, as an alternative to a bottle bill; the idea being, what we really needed was to recycle all of our glass. Some people argue what we need is both a mandatory recycling and a bottle deposit bill. I think it may be a little too early to tell whether, in fact, that is the case. We haven't implemented fully the mandatory recycling program and know whether or not we need that initial bottle bill on top of everything, because, as you know, there are costs associated with that. There are environmental issues associated with the bottle bill, with the storage of materials and the attraction of vermin, as Don said, disease, possibly, that is easier to -- more easily spread. The space, the storage requirements for stores that have to take in these bottles and cans and whatnot-- There are a number of issues that need to be debated on that.

In the meantime, we have this mandatory recycling bill which always, at least initially in this State, has been the alternative, if you will, to that issue.

ASSISTANT COMMISSIONER DEIESO: I need to add one thing: You set a theme, and a good one; that our residents have a role to play in changing their behavior. The example you offer, the bottle bill, is a marvelous example to the contrary. The bottle bill has a genesis and a need in littering. The bigger challenge is to convince the residents of this State that that can or bottle along the side of the road, along with the piece of paper or matchbook, is wrong. That is a human nature change. That is an ethic we need to reinstall.

That's more akin to your point in which you say we can change human nature. I don't want to encourage littering, through bottle bill logic.

SENATOR D'AMICO: Without indicating whether I agree or disagree, I, frankly, don't-- On many of the points that you expressed, you mentioned the recycling program, and glass and aluminum. I concede that those materials are covered, and we wanted to give that program an opportunity to succeed.

At the same time, though, when the mandatory source separation and the Recycling Act required the DEP to evaluate the level of the voluntary recycling of plastics, that Act further mandated that a study be done, which was to have been presented to the Legislature on October 1 of 1988. And I have, on a couple of occasions, reminded the Commissioner and the Department that that report is late.

My question is: Where is that report? And assuming that one does not want to interfere with the Mandatory Recycling Act as it relates to glass and aluminum, would it not be a good idea to attempt to impose a deposit on plastic beverage containers as a way, number one, of dealing with the material that is not now covered, and secondly, as a way of removing from the waste stream a material which you did indicate in your testimony was the source of some of the emissions problems and ash problems in the incineration process? May I have your comments on that?

COMMISSIONER DAGGETT: The report will be out in about two weeks or so. John can give you the details on that.

J O H N C Z A P O R: The report is late. We've been working very aggressively to do not only the market study on recyclables in general, but a special study also on tires, just to focus on several of the major constituents of the waste stream. We hope to wrap all of those up in the next two weeks.

As proponents of the policy of recycling, we've been looking at a number of containers, and we've been stumped a

little bit by going beyond beverage containers, which represent a relatively small percentage of the total plastic containers in the marketplace, and an even more so relatively small amount of plastic in the marketplace. Those are some of the things that caused us a little bit more time in getting the report out.

SENATOR D'AMICO: What is your suggestion about the deposit on the plastic beverage containers, as a component of a broader array of measures that would deal with the other plastics in the waste stream?

ASSISTANT COMMISSIONER DEIESO: If we had the plastics cornered in a supermarket, for instance, as your center point, and if something other than disposing of it in a landfill happened after, then we'd say we've got a lot of room and a lot of promise.

Our fear would be that, until we develop a network and a system for handling the plastics, you will have them returned to a supermarket. You'll have a supermarket or chain store operator pay out to those that bring the bottle back.

You may have made an accomplishment in making the streets cleaner, which is something good in and of itself. If that store owner himself simply puts it in a Dumpster, then I don't think we've accomplished and married the recycling goal.

SENATOR D'AMICO: Doesn't it say that, having new markets created, and additional recycling occurred--

ASSISTANT COMMISSIONER DEIESO: With respect to aluminum and glass, yes, those are states that do have mandatory recycling. With respect to plastics, the fairest thing we don't know, but it isn't the overwhelming success story that some would paint.

SENATOR D'AMICO: What about a recyclable system with respect to batteries?

ASSISTANT COMMISSIONER DEIESO: With respect to auto batteries and dry cells, we think that is the next area we should collectively, with your help, take a look at. Yes, in answer to the question--

SENATOR D'AMICO: One other question, and then I'll give other people a chance: You mentioned the problem of sewage sludge in the context of your discussion of composting, because, of course, the incineration of sewage sludge has become also a major issue in this State.

One of the alternatives that has been suggested as a way of marrying two needs, i.e., the need to get rid of sewage sludge, and also the need to provide daily cover at landfills, has been tried -- composting to chemically treat sewage sludge as landfill.

Is DEP, in the near future, as I have indications may be the case, going to be reevaluating and liberalizing its regulations in light of the industrial pretreatment standards?

ASSISTANT COMMISSIONER DEIESO: There is nothing in our regulations or programs that prevents it. In fact, we've encouraged it. What we have in a practical sense is, could composting of sludge work, providing you have enough area and real estate to do it? If you move to some of our more densely populated counties, it's tough to find the amount of land.

Secondly, you have to have a use for the end product. There are many states in this country that have moved to sewage sludge composting in large measure, and they are paying to have that composted sludge put in a landfill, because there's no end use.

So, again, before we rush to that one-- We think it's being composted in Cape May County. It's being composted in Sussex County successfully. There are counties that are doing it, and doing it properly.

Middlesex County has a proposal before us. In their approach to getting out of the ocean, they are proposing to use it at Edgeboro Landfill as some form of cover.

SENATOR D'AMICO: I had been led to believe there was a DEP regulation, or series of regulations, that precluded sludge as landfill cover at landfills.

ASSISTANT COMMISSIONER DEIESO: The sludge itself is unacceptable as cover. Cover must be a fire retardant by definition. Sludge will burn. So, the sludge itself isn't cover.

SENATOR D'AMICO: Unless treated?

ASSISTANT COMMISSIONER DEIESO: Unless added to another material.

SENATOR D'AMICO: You're telling me that your regulations permit that?

ASSISTANT COMMISSIONER DEIESO: We're cautiously optimistic. They are going to add cement to their sludge. They are going to produce a product which then they say can be used as cover. We're going to subject it to testing. The regs do allow it, just to underscore it.

SENATOR D'AMICO: Thank you very much.

SENATOR DALTON: I wanted to pursue a line of questioning initiated by Senator D'Amico that deals with the premise of the whole issue of pollution prevention. We've been hearing about legislation to initiate that type of a regulatory system in the State this summer with regard to hazardous waste. However, what are we doing, and why are we not pursuing a more aggressive policy towards pollution prevention with regard in the area of solid waste?

Let me give you examples: The one example is the area of bottles and plastics. Certainly there are nine states that we can learn from with regard to the questions that were previously raised by Commissioner Daggett. I don't think they are questions any more. There are pretty substantive analyses that can be done, based upon the experience of these other states.

Initially, the whole issue of batteries, of pesticides, the whole issue of Styrofoam-- Why aren't we pursuing a more aggressive policy of either minimizing or precluding those types of materials in our waste stream?

ASSISTANT COMMISSIONER DEIESO: Mr. Chairman, with source reduction of solid waste holding hazardous waste, your initiative is more broad. It covers hazardous waste as well. My remarks speak only to solid waste.

SENATOR DALTON: That's all I'm asking for.

ASSISTANT COMMISSIONER DEIESO: With respect to solid waste and source reduction, we've a hierarchy with regard to approach. We have to adopt measures that address less packaging, less waste. We focus on packaging. It is what we find in our waste stream.

SENATOR DALTON: How are you going to do that?

ASSISTANT COMMISSIONER DEIESO: That is a social-political challenge. You need less from us. We need-- Perhaps just to frame for you what some ideas would be, we can offer you ways to reduce--

SENATOR DALTON: Why aren't we doing that now?

ASSISTANT COMMISSIONER DEIESO: We have started, via CONEG -- the Northeast Governors' Conference -- and the northeast states. We appaled to the manufacturers of products two years ago to voluntarily start reducing their packaging, and they have done so.

SENATOR DALTON: How good is the effect of that?

ASSISTANT COMMISSIONER DEIESO: We set a goal to reduce by 10% the amount of packaging they are producing today. We're buying more concentrated detergents. If you buy it concentrated, the box can be smaller, and there's less package. We now find packaging combining things like bleach and fabric softener, thereby saving you the need to purchase three different boxes. You see a trend toward volume packaging. Instead of single rolls, they have begun marketing rolls of six and twelve, thereby reducing the amount of packaging.

SENATOR DALTON: You indicated the clock is ticking, and we're aware of the fact that the clock is ticking. This

voluntary 10%-- Don't you feel there's a need to act more forcefully in this area?

COMMISSIONER DAGGETT: I would say to you that we ought to look at that very seriously. Yes.

SENATOR DALTON: How come we're not doing anything about it now?

COMMISSIONER DAGGETT: We don't have the authority to force that to happen. We have to work, actually, hand in hand with you, and the Assembly as well, in trying to develop proper policy. So that may force some of this to happen. It isn't going to happen--

We need something that we have in our own laws, in current statutes, to enable us to force that to happen.

SENATOR DALTON: Nobody has come to this Committee and urged that to happen.

ASSISTANT COMMISSIONER DEIESO: We don't know enough. Let me give you some of the complexities. We criticized why electronic VCRs would come in a cardboard box lined with Styrofoam, and within that, wrapped in plastic. You say, that's clearly over packaging. The answer is, insurance underwriters require that for any of the handlers and shippers of that product.

So, we then pick up a whole issue in the insurance industry, and their codes for what a package or box looks like. We then criticize the food and drug folks with a lot of packages, and jars within the plastic. You find little blister packs on the shelf. Anti-tampering provisions have become a very important issue for them in product liability and in consumer protection. They also offer the fact that anti-theft has become a major issue in their sales. So, in their definition, there's no such thing as excess packaging. Every package is there for a reason.

It's one of these issues we began by going in. And we are thinking of doing a mirror to the mandatory recycling, in

which we mandate 25%, and then another 10% in the next three years, on and on.

But, as we began to dig and learn, it isn't that simple a matter. There's a whole pattern of many agencies, many requirements, involved in what is a package today.

Don talks about the CONEG group that's been working for some time now, working hand in hand with the packagers to try to address this issue.

COMMISSIONER DAGGETT: We are far from figuring it all out yet. It might behoove all of us to somehow work together on it, if you will, as we continue to study the issue and work the packages-- Why can't all of us, I mean members of your Committee or staff people, whatever-- We ought to try to keep looking at this. It is a complicated issue.

SENATOR DALTON: I'm not suggesting that it is not a complicated issue. What I am suggesting is this is an area where we can prevent pollution. And we should be pursuing it as aggressively as any other component of strategy in our solid waste policy in this State. I don't believe that we are doing that. I think it's something that we're working with CONEG on.

That's all fine and good, because I know it's certainly a national problem and certainly needs regional responses as appropriate.

As you indicated, Commissioner, the time clock is running. The fact is, to my mind, with regard to solid waste, New Jersey is an island. We better be moving. It seems to me that we have to step up-front and address these issues, and the complexities of the insurance liability issue, etc., notwithstanding-- And I'm not minimizing those. We can figure them out. We can address them. And it seems to me that we ought to pursue that as aggressively as the incineration policy in this State.

That's my concern. I don't think we're putting enough emphasis on that area. That's my first concern. Additionally,

I wanted to go-- Hand in hand with the whole issue of packaging is the whole issue of recycling. Should we be building a 40% recycling goal into the sizing of these resource recovery plants?

ASSISTANT COMMISSIONER DEIESO: Mr. Chairman, first, the statewide recycling rate today is about 16% or 17%. I offer that just as a benchmark, because we have a goal of 25%, or we're moving toward the goal of 25%. But, we're at the point now where we're pushing many communities to even reach the 25%.

In our judgment, the jump from 25 to 40 or certainly the jump from 25 to 50 isn't going to happen via curbside recycling. We're going to reach a plateau with which there just isn't any more separation activity residents can do in the home or at the curb. To go beyond 25% may require the mechanized central recycling locations where we pull out the cereal boxes and the green beans wrappers and process them through some other approach. Those are the material recovery facilities or MRFs, as they are known. Those are high on the agenda.

COMMISSIONER DAGGETT: They should be part of the strategy for incineration. For example, one of those facilities is separating out before it goes into an incinerator. There is another configuration to come, where, instead of just having everything out in different locations, we're trying to centralize more and more.

We're at a facility. We start by separating materials, and then move into an area where there is refuse to high fuel, whatever it has to be -- that's proven to reduce it -- and maybe some sort of a facility on-site to take ash and turn it into some sort of a product, which we are on the verge of doing in research.

I think that's what you're going to ultimately see. That will be when we can start to expand.

SENATOR DALTON: I'm talking about the front end, more so than the back end of the process, Commissioner. Why aren't we doing that right now?

ASSISTANT COMMISSIONER DEIESO: Let me say, I think one of the limitations is we can build in tomorrow afternoon a requirement that the facility be downsized, as your point, to reflect 40% recycling. And, in a year-and-a-half, when that facility cuts its ribbon and is operating, we'd have to be confident that 40% recycling is available, and that new technology, that we're hopeful about, is real. That's the point where, in our judgment, we don't have that confidence.

SENATOR DALTON: Let me ask you this: It seems to me, if you don't factor in 40% recycling now, what you're going to have five years down the road is excess capacity at many of these sites. And what you're doing is saying, well, the best we can achieve is 25% at the day this thing opens. Five years down the line, however, we may indeed be able to achieve 40%. As a result, you have excess. You may potentially have excess capacity. And I think that's what we get.

We can't be looking at it the day the ribbon is cut. We'd better be looking at it in a five-year or ten-year approach to this whole issue, because my concern is that what ultimately you'll have in five years is a number of white elephants in this State.

ASSISTANT COMMISSIONER DEIESO: Let me underscore and say it would be a gamble. As you painted, it might be a gamble worth it.

The point we make, though, is these facilities, the resource recovery plants, incinerators, can operate at less than their full capacity. There's a misconception that it's very much like your car. When you buy a car, it can operate at speeds other than 60 miles an hour. Although you operate it at 25, it can be operated at 60. It can operate at 20 and 30 and 40. In the future, rather than close this facility, if a MRF

becomes a technology, you can run this plant at 2600 or 2400. You can do so. It isn't that we would then close it. It's not that you run it at 3000 or 0.

SENATOR DALTON: I'm not talking about the operation, but the economics.

SENATOR D'AMICO: Let me interject. Until the front end problem, until we have a better handle on that, certainly there is the backup approach. And I have seen facilities like this throughout the world, as well as in this country, where you can buy various sets of low technology methods, magnetic or ferrous separators, and various other devices, including manual picking, remove from the waste stream before it goes into the burner a substantial number of materials which are not now recyclable, and, in fact, the Monmouth County proposal does include a low technology, front-end process which is essentially based on some of the technologies that were observed in other countries.

Couldn't we, in terms of the sizing, at least, of the incinerator or the burner or the boiler, mandate that these units employ at least these technologically feasible approaches, while at the same time we address separation of those same materials that would be picked out before they actually go in the boiler at the front end?

ASSISTANT COMMISSIONER DEIESO: Monmouth County -- and there are two others in the State -- at our encouragement, is considering bid documents and proposing just that. What we've asked the counties to do, those that are now maturing and coming in for permitting, is to try that in bid. Let's see what the vendors will promise and assure, via contracts, about the performance of the MRF. And in those bids we look forward to seeing what the commercial sector is prepared to commit to. Many of the large national firms are acquiring European licenses on these MRFs and, again, we said this from the beginning, we're encouraged by them

It is a technology that looks like it's going to work. Whether it will work in the next year or two or five, we're uncertain.

COMMISSIONER DAGGETT: We'll underscore that it's happening to some degree. The question is, how it ultimately happens. If it happened by forcing some percentage, in other words, requiring some percentage of materials to be removed, or do you rely on the bidding process and letting people come in and tell you what they think they can get out of it with a MRF? Some of the facilities are saying 25%, not 40% with the MRF.

So the point is, is that because they are taking their best guess, or are we saying, "Why stop at 25? We have a machine that can do 40." In that case we say, "Fine, let's move forward."

The problem is, as we move along, we'll also be moving along in research and development.

SENATOR DALTON: That's essentially what I'm saying. You can recycle 25%, okay. What we have to be doing is sizing facilities based upon the fact that we know technologically, in years to come, we're going to be recycling at 40%. What we're doing is allowing the technology to establish the sizing. To my mind that is the tail wagging the dog. The dog should be wagging the tail.

It's never going to happen unless you force that technology to move ahead quickly.

COMMISSIONER DAGGETT: I'm not sure that's correct. I'm not sure it's true with the MRFs.

SENATOR D'AMICO: I have to say, number one, I agree with the Chairman.

SENATOR DALTON: You have a profit motivating-- If you force the technology, they will adapt.

ASSISTANT COMMISSIONER DEIESO: There's one proviso. That's the way technology has responded in this country. We

understand it. We don't take issue with the overall scheme. The difference, though, with respect to solid waste is that we don't have the luxury of taking the risk that that technology may fill a void in one, two, five, eight, or ten years. We are facing a crisis today.

If there's anything that's changed our thinking towards this-- Because, Senator, we have that approach in hazardous waste. We have the approach where we say, "Let's mandate it," and then we don't have the same urgency, unlike solid waste, where we do have our doors closed. We talk about increased technology. Disposal will go from \$140 to \$360 a ton.

SENATOR DALTON: I think my problem with your assumption is that you're saying that incineration will immediately fill the void if Ohio and Pennsylvania close their doors. I think that is a premise that is absolutely wrong. It will not fill the void. It will not. It's going to be a combination of things that have to fill the void. There's not going to be incineration capacity in the place. If Governor Casey shuts Pennsylvania's doors, there's not going to be the capacity. Okay?

COMMISSIONER DAGGETT: That's correct.

SENATOR DALTON: So what you have to do, it seems to me, is, you have to force the technology. Your whole concept of crisis, the imminent peril -- okay-- You're saying that incineration is the answer to this imminent peril, to move forward with incineration.

My feeling is, "That ain't enough." You better be moving forward with recycling as well. If you don't force these 40% recycling goals on these incinerators, then within five years, you're going to have over capacity in certain regions of this State.

ASSISTANT COMMISSIONER DEIESO: One distinction, and it's a minor one, is, we are doing all four prongs to solid waste. Somehow we need to continue to say that, that the first State with mandatory recycling--

SENATOR DALTON: I'm the first sponsor of the statewide recycling bill, and that's fine. We have to be doing more. We're not doing enough. That's my point.

COMMISSIONER DAGGETT: There's also the question of-- And I think we're certainly willing to enter this discussion and try to reach some sort of--

SENATOR DALTON: Don't give me phrases like "enter this discussion." You have to be aggressive.

COMMISSIONER DAGGETT: Of course you do, and we're very aggressive. I don't want it to be portrayed that we're not. I think we are very aggressive in these issues. The question is, how long do you want to play, essentially, a crap shoot on this? We don't know that they will be able to be sized up and handle any kind of a volume.

We do know, if we make the commitment, we can build incinerators within a certain time frame and be able to handle that. The question is, do we want to wait the five to ten years to get some of these alternative technologies when, in fact, in five years, we can do it as an alternative? When I say I'm willing to enter that discussion, I mean we can talk about what we want to do as a State about that. We've chosen at this point to try to force people to be self-sufficient by 1992. We don't think that is an unrealistic time frame in which we're going to have a lot of problems on our hands.

SENATOR DALTON: The whole thing is a crap shoot, okay.

COMMISSIONER DAGGETT: Exactly right. How long do we want to play that out?

On the short term, we can put in facilities. In the longer terms, we can put in the ultimate technologies. The question is, do we want to go for the longer term or not? That is an open question and one we should continue to force to happen.

In the interim, do we want to wait or don't we? That's the big question.

SENATOR DALTON: I don't think you're doing enough to force it to happen.

SENATOR D'AMICO: I'd like to see less crap in the shoot.

Another area I'd like to go into is the whole issue of regionalization. You indicated in your testimony that in certain areas of this State, regionalization may make sense, and in certain areas of the State, it may not make a whole lot of sense.

Can you tell me where it makes sense and where it doesn't?

ASSISTANT COMMISSIONER DEIESO: I think if we look to some of the counties that have low population -- low population densities -- you've got an opportunity for those counties to band together, and, as the Commissioner noted, we were in some way a strong encourager of the six-county regionalization concept for ash landfilling in the northern and western parts of our State. That was not a successful action; at least, it's been suspended for further consideration, I think, and there are several others that we're not at liberty to discuss, because we keep them rather close to us until they are acceptable. But those initiatives are going to happen, in our judgment, not because they are mandated, not because the strong hand of the State comes in and forces it down county throats, but those regionalizations will happen because they are right economically, geographically, politically. All of those factors go into making regionalization make sense.

The ones that are moving quietly are the ones that fit each of those categories. In our judgment, to have the strong hand of the State come in and force -- impose one facility in one county that will accommodate another is going to plunge us into a real challenge politically, and set us back.

SENATOR DALTON: It's tough to have a discussion on this, given your somewhat ambiguous-- I understand the reason for the ambiguity, okay?

Let me ask the question another way: What you're saying is, there is certainly area-- There is a potential out there for regionalization presently being pursued by concerned counties.

COMMISSIONER DAGGETT: That's correct.

SENATOR DALTON: Is that, again, given your-- Are we doing enough? It seems to me that by encouraging, you may not have the tools to go even further. No offense, but you're saying you're encouraging does not cause me great optimism.

What tools do you think you need in order to pursue a regional approach in perhaps a more aggressive fashion?

COMMISSIONER DAGGETT: I'm not sure when you say "encouraging" doesn't make you optimistic. I don't know that we can do much more than encourage in some respects. I don't know that regionalization is always the right thing. So, forcing it is a question, first of all.

SENATOR DALTON: But you said in your earlier statement that regionalization in some areas makes sense.

COMMISSIONER DAGGETT: That's right. I think, though, it has to be done more with a carrot on a stick to try to give an incentive to make the host community want to do it. I don't know that that comes by giving us additional enforcement capability or additional requirements that we have, that we can make people adhere to.

I tend to think that it best works through trying to get counties to the table, first of all. Actually, we've been fairly successful at that. As you know, we got one right down to the wire, and it fell apart, again, on the whole idea that the host community or host county, in this case, wasn't interested or at least expressed that through a majority vote.

So, I'm not sure that I'd say to you that I need authority to make this happen.

SENATOR DALTON: You haven't made it happen yet, encouraging people.

ASSISTANT COMMISSIONER DEIESO: The one thing, to answer without ambiguity and to the point-- The one failing, and the one cause of failure -- and there are many attempts that we've had quietly; those that have drawn less press attention -- has not been that they didn't make economic sense, but that they didn't make environmental sense.

In fact, when you say, "Are there regionalization ideas that work?" and we say, "Yes"-- We'll have freeholders sit with us and also acknowledge that it makes good, practical sense, and economic sense. They fail because of the political overtone of it. What is it that can be done? These things make perfect sense. How can you arm us to impose on a system good judgment and a judgment that overrides any parochial issue?

SENATOR DALTON: That is exactly what I'm asking. Can you give me an answer to that?

ASSISTANT COMMISSIONER DEIESO: Mr. Chairman, we have been careful in the past, and certainly before this Committee and others, when we venture into an area of public policy and we have our hands slapped properly. I would use that as a defense in this case and say, "We've given you the technical arguments." That one is beyond us. We can say to you, process.

COMMISSIONER DAGGETT: Let's look at the situation we've been using as an example, without talking about it in detail, the Sussex County landfill -- regionalization with five counties going to burn garbage. Sussex County was going to be the host county for the ash landfill, 300 acres of land. That ash landfill was going to save the county, over a 20-year period, some \$400 million in costs for disposal; free disposal for those 20 years.

In addition, there wasn't even a guarantee that they would have to take all of the ash, assuming technology continues to move on this and we can develop some ways to use the ash. They might not even have to receive nearly the amount of ash that was anticipated having to be received during that time frame. We get down to the crunch.

What was the reason that it happened? If you look at it, the reason was the sheer opposition by the Sussex County Freeholder Board on a two-to-one vote to that. And it wasn't a vote whether we should take it or not. It was a vote, should we consider taking a vote whether we should continue talking about it?

Again, technically it made sense. Economically it made sense. Environmentally it fit into the self-efficiency policy. It fit in every way but politically. To say to me, what can I offer to you to give us more political clout on that-- I don't know that that's the best policy, frankly, of now giving us something to force that to happen, essentially jam that facility into Sussex County, and tell them they have to take it because it's a savings-- Maybe more incentives or sweeten the pot somehow even more would be the answer. I don't know that it's going to be done.

SENATOR D'AMICO: You do concede if the law permitted you to have that power, and if the law required you to make your decision based on what was the most feasible approach from an economic, technological, and environmental standpoint, that if the law were changed you would have the tools to bring that result about?

COMMISSIONER DAGGETT: We may have the tools to do it. That doesn't mean it's going to happen. I can tell you story after story after story in this State of decisions that might have made sense and when-- More authority? The Hazardous Waste Facilities Siting Commission, they've gone after eight years. That had the State authority, too, and it's having a very difficult time reaching a conclusion on that process.

We're about to enter the same process of siting of low level radioactive to RAD waste. If we don't do it shortly, we're going to have a problem disposing of materials coming out of hospitals and nuclear facilities and whatnot. I don't know

that giving us the authority, just because the State suddenly has the authority -- whether we'll get it done.

I'm just not convinced that the strong arm of the State, if you will, is going to be any more successful, than the strong arm of a county or anybody else you want to vest this authority in, or this power.

I think maybe the best thing to do is to continue to try to develop ways that entice people into wanting to do it; through incentives and through whatever mechanisms. I'm just not convinced that it's going to happen. I'm saying that if you would tell me, "Pass it on to the Federal level" -- I'm not sitting here-- I think it's a tough issue.

SENATOR DALTON: The irony is that the biggest proponent of the Hazardous Waste Siting Commission and the process for disposal of low level radioactive waste was the Department, which is ironic given this solid waste thing -- a process where the Department is not willing to play a major role, other than encouraging.

COMMISSIONER DAGGETT: I'm partly saying to you, that was eight years ago when that was set up, or nine years ago.

SENATOR DALTON: Low level radioactive waste we talked about in this Committee as recently as a year ago.

COMMISSIONER DAGGETT: When people were talking about putting in a Siting commission-- They don't know. It's taken us nine years through that processing, and we still don't have a final site. That leads me to say, maybe that isn't the best way, in hindsight, not that it isn't. You can make the argument on both sides of this issue, very persuasively.

SENATOR DALTON: For me to raise the issue six months from the end of this administration's leaving town is probably foolish, too, to some extent. I have no further questions.

SENATOR COSTA: Regarding incinerators and how large they should be, you had some kind of efficiency level about how much tonnage per day. Is there a different figure now than there was the last time?

COMMISSIONER DAGGETT: Overall, 11 million tons per year in New Jersey.

SENATOR COSTA: The efficiency level of incinerator--

ASSISTANT COMMISSIONER DEIESO: Oh, if I understand your question, 10 trucks of garbage come in. One truck of ash leaves -- 90% volume reduction. And that is the reason that -- one of the many reasons -- incineration has an advantage. Those counties with a shortage of land--

SENATOR COSTA: The minimum amount of tonnage-- Where does it become an accepted, efficient level?

ASSISTANT COMMISSIONER DEIESO: As small as 50 tons a day or smaller and as large from units as 4000 and 5000.

SENATOR COSTA: We started talking about the various incinerators, whether you should go for great, great big, or small in more areas. That's what I'm trying to get at.

ASSISTANT COMMISSIONER DEIESO: When you get to the great big ones, the notion I want to offer you is they are not one big furnace. They are a series of small ones. The ones that are 3000 tons a day, for instance, will be for 750 tons.

SENATOR COSTA: All encased in one unit?

ASSISTANT COMMISSIONER DEIESO: You can close one, and three will operate. You can close three, and one will operate. It's very much like your four neighbors, each with their own heating boiler in their home. Each of you can operate separately.

SENATOR COSTA: In 1972, in Chicago where we had steam, they were selling-- There were four incinerators in there. Of course, they're in one unit. Boilers-- So you're saying they are separate units. They are all encased in one housing?

ASSISTANT COMMISSIONER DEIESO: With some of the designs, we have them all within a common shell. It would be very much like each of us operating independently.

SENATOR COSTA: But any amount, the figure that would make it efficient to have one, to build one?

ASSISTANT COMMISSIONER DEIESO: Would depend on the amount of waste that you're going to bring to it. That will determine the economics, Senator. I will say this, and I'm not sure I understand the question, but let me try with this thought: It would be more expensive to run-- It would be more expensive to run a resource recovery in four cities in Camden County than it would be to run one large one that serves all of Camden County.

SENATOR COSTA: That's what I was getting at. Thank you.

SENATOR DALTON: Thank you very much. Senator Cardinale?

SENATOR GERALD CARDINALE: Thank you very much. I'm going to deviate from my printed testimony.

I'd like to comment briefly about this whole matter, having heard the testimony which you have just heard. And I'd like to first comment that I believe this is an important enough question, probably the most important question that's going to face New Jerseyans in the 1990s. I don't think there is a more important question. There are things that are more on people's minds, but I think this one has more impact on the overall well-being and the quality of life here.

I would like to suggest to the Committee that you call -- that you actually invite some specific witnesses from Rutgers University -- from Cook College -- Professor Finstein, and some others who have actively worked in the academic area and have given you an alternate view of the actual scientific background, what works, what doesn't work, and what works in other places, and what doesn't work in other places. I have had such meetings, and I have come away with a good deal of information.

Sometimes as a Legislature we are too overly concerned with what the departments themselves would have us believe, and we get a kind of one-sided view. I think that is what has been

presented. I'm really very pleased to see that members of the Committee have really questioned very carefully some of the premises which have been brought before you, because I know it is very good to question those. I happen to believe the position that is being taken is wrong.

The incineration-- You saw a slide with a four-way test with respect to any process. I would submit to you, if we subject incineration to that same four-way test, it fails. One of the questions is, is it a proven technology? Well, yes, incineration has been tried, and it has been done in many places. In every instance where it has been done in the United States, it has failed because incineration always produces toxic acids; toxics which are a worse problem of disposal than the garbage or sludge ever was in the first place.

I submit to you that Philadelphia has closed its plant. That's not because they wanted to waste the hundreds of millions of dollars that they spent on constructing it. But rather, because they disposed-- They went to landfilling as an alternative to trying to get rid of the incinerator. Detroit and Santa Monica-- It has been tried in 90 locations in this country. Incinerators have been built. They have experienced one problem or another. Problems may have lead to the expectations of incineration in terms of the public benefit being totally out of kilter, and it has cost more than anyone predicted. It has produced more toxic ash, and the disposal of the toxic ash has been a very significant problem both environmentally and cost-wise.

The alternative, composting. Composting works in a number of areas. I'm glad to hear that the Department does not object to composting of yard materials. We have been doing that in many parts of the State for a long period of time. And the biodegradation process works with leaves and other yard materials, grass clippings and so forth. It is the very same biodegradation process that works with sewage sludge and that can work with putrescent garbage. It is no different.

In the scientific area, they talk about the scientific background being physics. I don't know why they had physics on the slide. Physics is the least important of the various scientific disciplines. This is a chemical reaction. It's a biochemical reaction. It is degradation of products. That is nature's way of handling waste materials. Disposable diapers will compost. Any organic material will compost. Cotton clothes will compost. Newspapers will compost. And when they give you all of the negatives about composting, think of two problems: One, their methodology of composting that they recommended to Cape May, and they recommended to Sussex County is what's called the Beltsville model. It has never worked successfully anywhere that it has been installed in any part of the country, because it attempts to repeal the laws of science. The Beltsville has 20-miles high of sludge in 28-foot high columns. You cannot control the temperature in 28-foot high columns. When you try, the bacteria die, and the composting does not work.

They built one of those in Cape May, and they built one in Sussex County. And in Cape May they are still trying to correct the process after tens of millions of dollars of correction, because they lived with the advice that they were getting from these gentlemen.

In Sussex County, I don't know exactly what the methodology is, and how they came upon it. I don't know, because there are conflicting stories of who did what. And I've talked to all of them. You can talk to them yourselves. There's a Pete Serenzio who runs the actual hands-on process, Freeholder Director. He's a member of your party, not mine, who has been very involved in this. Also, there is a Michael Rose. There is a Professor Melvin Stein at Rutgers University. They all apparently had a part in solving the problem in Sussex County.

What they did was a simple thing. They lowered the column heights to 7 feet instead of 28. They put in some thermostats and blow air through the shortened columns, and they keep the temperature at 55 degrees. They have between a 9 and 14 day turnaround time; that is, from sewage sludge to actual compost, which is horticulturally usable in 9 to 14 days. That's real progress.

They got an EPA award in the Dallas Solid Waste Convention in October for their process. But the comment on their process by Rutgers, which is not listened to by our DEP-- The comment is that it's a 60% effective system because it was built wrong in the first place and was corrected. So, it is only 60% as efficient as it could be if it was built right, right from the beginning.

I would like to read to you from a couple of things, and I'm going to leave these with you. That's why I had that box of things brought in. I didn't intend to go into this whole discourse.

Since you have this detailed explanation, I think you need some of the counterpoints. I would encourage you to get the rest of the counterpoints from the academic community. This is an article from The New York Times: "Westchester and Nassau Counties are not looking at incinerators at all. They have abandoned the idea of incinerators. And they are not unique. All over the country people are abandoning the idea of incineration, because it has proven itself to be a failed technology."

I will quote to you from Steven Fineman, Nassau Commissioner of Public Works: "We're not looking at incinerators at all." What are they looking at? They are looking at composting. New Jersey's reliance on sludge incinerators comes as some cities and suburbs in New York State and Connecticut are abandoning them in favor of turning the

sludge into compost. New composting plans are buying in, in Binghamton. The plant in Hartford will handle sludge from Hartford and seven neighboring suburbs.

The New York State Solid Waste Management Plan favors the recycling and reuse of sludge over incineration, according to their State Department of Environmental Protection, or whatever they call that entity there. It's got a different name. New Jersey claims to be neutral. And you heard him say that he is neutral. However, try to get a permit for a composting facility in New Jersey. If you want to use a methodology that is, in fact, scientifically consistent with the laws of science, they won't give you that permit. And I don't know how Sussex County got around them. Sussex County violates all of their requirements, but it has actually been in operation for the last three years. The six New Jersey authorities are facing an ocean dumping ban, and they complained that they face an uphill fight with the State if they want to avoid incineration. That's what I've heard from them directly and it's quoted here in The Times article.

"There is a serious question," and this is a quote from Helen Pettit, head of the Bureau of Pretreatment in the State's Division of Water Resources, "and, according to many in this field, the principle reason that composting got a bad name within our DEP and is so difficult. There is an unresolved question," she said, "of whether the treated sludge would be efficient as fire break, and whether it could withstand pressure, leaking, and erosion; whether composted material can be used horticulturally."

And that's, in fact, what's being done with it in Sussex County. You see, they don't have to landfill it. They sell it. And they have a single entity which will buy all that they can produce, and they are being paid \$4 a ton for it. When you go out and buy a bag, it's \$4 for a 50-pound bag, and this guy is getting it all for \$4 a ton, but he's taking it all off their hands.

You cannot use horticulturally what comes out of Middlesex County. You can't use what comes out of Middlesex County horticulturally, because it does have too many heavy metals in it. Don't be confused. It will compost, whether it has heavy metals in it or not. What does this process involve? It involves, in fact, having a reduction of 230% of the original volume composting involves. If it's done properly, it involves a reduction in volume very similar to the reduction in volume that you get when you burn this stuff. You may get it down to 23% by volume when you burn it. There's not much difference between 23 and 30.

But, what is the market for toxic ashes? Whether they are from Warren County, or whether they are from Sussex County, or whether they are from Middlesex County, toxic ashes are from a zero market, and they need very expensive landfills to put them in. The only reason we cannot compost sludge as they do in all other parts of this country is because of the rules these people have made. They have made arbitrary rules that have impacted negatively on composting.

You have been led to believe that there is a bias toward incineration, which is being actually promoted here.

Now, I want to talk a little bit about a letter from Rutgers University. When I made some inquiries-- This is from April, toward the end of April, and I'm just going to read a few excerpts from it. I'm going to leave the letter with the Committee, as I will The Times article.

"Sussex County, New Jersey represents only a mediocre example of applying the idea of rate maximization. They have gone, perhaps, 60% of the way. This was nonetheless sufficient to convert an outright failure to a notable success. Everything is relative. The folly of Cape May is documented." Unfortunately, he refers to scientific articles which he provided me with, and which you can get from him, I'm sure -- additional copies. I do not have the copies with me. I didn't

intend to use this, but I think you can pursue it as a Committee. I would suggest that you pursue, as a Committee, those from the exhibits which go along with this letter.

According to the 1988 EPA report, which was one of the exhibits, municipal solid waste is made up of the following: Paper and paperboard is 40%; glass is 9%; metals are 9%; plastics are 7%; rubber, leather, and textiles are 8%; food waste is 80%; and yard waste is 18%.

When we want to talk about percentages that we can recycle, yard waste is immediately recyclable. That's 18%. We can achieve 18% just by all yard waste, which everyone agrees can be, in fact, composted, and doesn't contain anything that would deter it from being reused. We reuse it in almost every town in my district today, and people seek it. It's given away free by most of the municipalities, and they don't have any left over at the end of a season in significant excess.

Municipal solid waste can be separated at MSW management facilities. Components for the putrescible waste, the food and yard waste, putrescible materials could be composted in combination with sludge, if indicated. These are not my words. These are the words of a Professor at Rutgers University, who is probably one of the world's foremost experts on composting. And what does he say? Let me repeat it again, in another perspective: Food, yard waste, and sewage sludge, all putrescent garbage, are part of the solid waste stream which can be composted along with the yard materials. Now, what are they doing in Sussex County?

I think you can look at that. Maybe a field trip would be in order to go and see it. In order to make the system work, they put wood chips in it to give it some bulk. And instead of the wood chips, if you use these yard materials and your putrescent garbage, everything from left over food to disposable diapers, you could put it in with that sludge and you could compost the whole mess, okay?

MSW-- In Camden County, there is a facility. I haven't gone down there to see it. I did go see one in Cumberland, and I understand there is one in Tinton Falls, a facility where they do exactly what you were talking about, Senator. They take all commingled recyclables. Instead of expecting the homeowner to separate glass into green, brown, and white, and have all these different cans, and the various cans of aluminum and other kinds of metals and batteries, and so forth, maybe getting mixed in somewhere else-- Instead of doing all of that craziness -- which we know the average person just doesn't do--

But some people will do it. Some people will do it religiously. My wife does not want, and neither do I, anybody saying that we are not doing what is really required by our local municipal solid waste plan. And we're doing it, and many are doing it. Those who, in this case, put in a few brown bottles with the green, are destroying the entire utility of the system.

Suppose we did something entirely different. I just have a picture here of two garbage cans. It is part of what I'm talking about. If you take out your dry recyclables, and put them in one can -- not all these plethora of cans -- and all wet organic materials in another, you can then bring all that to the compost pile. And all that wet organic material can be taken to a mechanical facility where it is actually separated on an industrial basis. With that kind of methodology, according to Rutgers, you will get 84% -- 84% recycling.

You see, they call composting recycling. That's true. When you compost it, you put it into a form that allows it to be reused. If you do that, the 14% or 16% that's left is stuff that is not dangerous to the landfill, stuff that can be put into a Class A landfill. Materials, probably, like old cars or things where the metal is really not reusable, or

materials that we don't know exactly what they really even are -- maybe it's old pottery, whatever -- in that 14%, are not dangerous. It doesn't decompose or doesn't cause other sorts of problems. In that component, we might find uses for maybe part of it. But, 84% sounds pretty good to me, and I think it should to the members of the Committee.

They talk about a Buffalo report. That report ought to be before this Committee. I don't have a copy of it. Incineration leaves approximately 25% of the initial weight as ash.

Now, you heard 90% is going to be burned. The Buffalo report says 75% of it goes; 25% of it remains, being potentially of a hazardous nature. This material is not acceptable at ordinary sanitary landfills. At considerable extra expense, and with uncertain ultimate environmental source, the ash must be brought--

To look at what's happening in Warren County, I think everybody in the State by now knows 54% of the ashes -- taken from a Star-Ledger article of a month and a half ago -- are being brought to Niagara Falls. And you know it costs four times as much to dispose of it there as it would cost to dispose of it in a double or triple lined landfill that we have provided for the people of Warren County -- have provided next to that incinerator. That's a very significant additional cost. They just sort of glossed over it. It can be-- What happens if you have an earthquake? Are you confident that there will never be a breach in a landfill; that that will never get into the environment? In Warren County, what happens when you have an incinerator taking care of all of the garbage, or all of New Jersey? What happens when we get to that point? Is Niagara Falls going to take all of that toxic ash we're producing? I doubt it.

We're going to have a toxic ash facility, or several of them, right here in New Jersey. If you think it's hard to

site an incinerator, wait until you try to site a toxic ash facility. And look at NIMBY. Let's talk about siting, because I know it is a very, very important topic. Siting is important. But who would object to putting a composting facility on top of an existing, used-up landfill? Who would object to putting it there? I don't think anybody would, because there's no smokestack. It's not belching out any smoke, and not giving out any emissions.

Warren County has been fined \$180,000 for emissions that somehow happened, despite all of those controls. Who would object to siting a composting facility, if it's being done right? And, yes, the one in Sussex County used to stink, and the one in Cape May County still stinks. That's because the bacteria died and you have no composting action. But, the one in Sussex County doesn't stink. No one would object to--

You want to talk about regionalization. You could take all of the sewage sludge from Passaic County, from Bergen County, from Essex County, from Hudson County, and maybe somewhere else, and put all of it in that great, big, landfilled area that's all used up, all filled up in the Meadowlands, and you could do that and do that very easily, and no one would object to siting it there. You can take all the putrescent garbage and put it there.

These MRFs are really not any fancier equipment than a conveyer belt, and they are no more dangerous or objectionable than any light industry. You could put them in cities and provide employment in the inner cities where you do have the only pockets of unemployment which exist today in New Jersey. And by doing something like that, you could have a totally cogent program that costs about one-fifth of what incinerators will cost in New Jersey -- one-fifth the price. You will produce no new toxic substances that didn't exist before.

The reason I objected to them talking about physics-- They didn't talk about chemistry. When you burn garbage you

produce oxides, oxides of various substances, particularly the heavy metals, dioxins. Those are carcinogenic, whereas the original materials were not. You burn glossy newspapers and produce toxic substances. You can handle that newspaper, but handle the ash that comes from the glossy and the ink in a newspaper, and that's a carcinogenic substance. You better not handle it, unless you have rubber gloves on, because you can get cancer from that.

In conclusion, I compliment the Committee and the Chairman on holding this hearing here today. I do believe this is one of the most important subjects that we will have to deal with.

I have no faith in the credibility of Dr. Deieso or the Department when it deals with this subject, because I went to a Committee hearing. I went to a Committee hearing of the Assembly, when they were dealing with John Rocco's bill, to put a ban, a temporary ban, a moratorium on all incinerators in New Jersey. And what I heard from Dr. Deieso were certain specific facts about the ORFA plant. I haven't talked about ORFA here. ORFA has a place. It is not necessarily the best way. Composting and intensive recycling are better.

I heard him say that it processes 40 tons a day, and I've been there. It processes 500 tons a day. And the Assembly Committee will be there. That was a recorded hearing, as this is. I think you ought to take his testimony and the other testimony at that reported hearing and make it available to the members of this Committee, because the inconsistencies with reality between what Dr. Deieso says at these hearings-- He ought to be sworn in. I think that might be the best thing to do next time such a hearing is held. Maybe he ought to be sworn in. Maybe he'll give different testimony. Maybe he even believes this stuff. If he believes it, it's a worse indictment than if he is falsifying it, frankly, because if he is the best scientific background that we have in our

Department, we're in bad shape in New Jersey because he is at variance with the academic community.

And I thank you. I don't want to get carried away. But it is easy, Dan, to get carried away, because when you get exposed to the realities of the science, and when you sit at Committee hearing after Committee hearing, as I'm sure you must, and you hear misstatements of scientific fact, it is very difficult to sit there quietly. I have to compliment you for almost sitting there quietly. But I saw that you got a little bit upset and a little bit agitated, because I know you know some of the things that I have said here are true. But I wanted to say them to get them on the record.

Again, I thank you all for having heard this. I will leave you with some of the articles from which I quoted, and other ones which I should really say something about. And that is, you also heard that recycling of plastics is not really the best; that the market may or may not be good, and it's uneconomical and so forth. I've attended a couple of seminars, and there's an article here by Gordon Bishop with respect to plastic recycling, and I have to say this: You see, recycling and incineration do not go hand in hand, because if you don't burn the plastic, you cannot achieve the temperatures that are necessary to prevent the toxic emissions. And if you take plastic out of the waste stream, incineration doesn't work.

Now, I was at a seminar given by an engineer who was a proponent of incineration, and a proponent of recycling of plastics, and I asked a question. I said, "You know, this seems to be contradictory from what I know." And he said, "No, it's not contradictory at all. Why do you say that?" "You take the plastic out, and you can't achieve the temperatures necessary to either provide any significant amount of electricity or to achieve the temperatures necessary to have the control systems in the smokestack work."

And he said, "No, no, no. You can take the plastic out and it's economically sound. You can get seven cents a pound for it -- better than recycling newspapers or anything else. And if you have a problem with the incinerators, you can put coal in them. You can put coal in them, and that way you can achieve the temperatures that you need."

Well, what are we doing? What are we doing if we're going to put coal in garbage incinerators? It seems they are so hell bent on making incinerators that they are willing to do almost anything to advance the cause of the incinerator salesmen, of the consultants, and the engineers, who I think have led us down a garden path. I think, and I have proposed-- And I would suggest it's only recent. This is no criticism of the Committee for not taking it up -- a whole plan on solid waste disposal at one of our last few sessions. I'm sure it has come to this Committee. I haven't even gotten the number of the bill. I think you ought to take a look at that.

I would ask you to take a look at that, and see if such a plan or some other varieties-- That's not an exclusive plan. I think ORFA has a place. Some of the 14% or 16% nonrecyclables, perhaps, can be handled through an ORFA process. We have to push that process, because ORFA can only sell today to cardboard manufacturers. And the only reason they can only sell to manufacturers-- No manufacturer of wallboards or structural shapes or furniture, all of which that product could be used for, is going to tool up and gear up unless there is a reliable supply of ORFA fiber to go into the process. And that is a deterrent.

But, at the same time, you heard contradictory evidence. He told you, "Don't worry about the toxic ash, because we can find ways to handle that." That's not a proven technology. But he's willing to accept unproven technology of ash disposal as an ultimate conclusion, when he is not willing-- Because that comes from incineration, I guess, when

he's not willing to accept unproven technologies in the sense that no one is actually doing it on an industrial basis, when it doesn't fit the scenario that he is obviously attempting to foist on the people of the State of New Jersey.

I thank you for your patience. I'm going to go on to my next stop unless--

SENATOR DALTON: Thank you very much.

We have the Board of Public Utilities, Murray Bevan, representing the President.

M U R R A Y B E V A N: With me this morning is Michael Kessler, who is Director of the Division of Solid Waste.

The BPU welcomes this opportunity this afternoon to address the Committee on a major policy issue of the appropriate role of incinerators in the State's long-term solid waste management strategy. As you know, the Board is currently the economic regulator for most disposal options in the State, including those using the incinerator and the ash disposal landfill that is typically associated with an incineration facility.

The Board is the last stop before the consumer begins to pay the cost of the disposal system; thus, our agency must balance the rights of the consumer to receive safe, adequate, proper service with the need of investors to have viable, timely payment of interest, expenses, and the repayment of invested capital.

The Board has reviewed Senator Dalton's May 22 discussion outline, and would like to offer our comments on the economic aspects of the problem, recognizing, however, members of the Committee, that all of these issues eventually must be translated into economic impacts, cost impacts, rate impacts, and financial impacts.

We're also aware that the solid waste collection disposal industry is a major component of the State's main economic infrastructure. As such, our joint observation is to

preserve and, where feasible, improve that industry's ability to handle solid waste generated in the State. The current economic regulatory scheme to handle resource recovery facilities can fall into two areas, or basically two categories.

The first is more commonly known as the McEnroe route. And by that, I am referring to the 1985 legislation which delineated a comprehensive review process for the contractual agreement that is entered into between the county and the vendor -- the resource recovery vendor.

The essential features of the McEnroe review process is a one-time, up-front contract review process by the Board, with terms, and conditions, and a mechanism for adjusting the tipping fee over time, as a result of the factors outlined in that particular contract. As of today, there are five county applications which have been reviewed by the Board, and have been approved for McEnroe related contracts, and one non-McEnroe traditional utility that I will refer to a bit later.

There are also now pending before the Board five additional applications for McEnroe review. So, if you add those up, I get 11, which are also included in my testimony in Table 1 for the Committee's review.

The second review path is the more traditional rate base, rate of return method, which allows for periodic review of the reasonableness of rates and expenses. Changes in tipping fees can be affected after imposition and hearing.

Gloucester County, as I alluded to earlier, chose this approach and its initial filing was approved by the Board in 1988. Each path provides a comprehensive test of the reasonableness of the contract. We review the waste flow projections, and there is a consideration of regional opportunities. However, there is currently no requirement. It is not required to demonstrate that regionalization be fully explored. The counties are only required to optimize their

systems as stand alone entities, since that is their mandate under the existing State law.

The board projects-- Our projected resource recovery calendar has also been included. You'll note that the five counties that I referred to earlier have over 8000 tons per day of capacity which has been approved at an estimated cost of \$750 million.

Can some of these future projects be avoided? Can they be downsized, and can ratepayers be protected from excess capacity? That is an important utility question which we often have to consider. They are all very tough future questions which we need to address -- the Committee needs to address, and the Board needs to address -- to assist New Jersey counties in developing least cost strategies for solid waste. And, really, this is a concept that I know Senator Dalton and the other members of the Committee are familiar with in energy planning.

We have attempted to take that lease concept energy planning strategy and apply it to our solid waste strategy.

In February of this year, the Board distributed personal computer adaptation of a large solid waste planning model. This planning has been distributed to DEP, HMDC, and two members of the academic community.

The model plan states, for waste resource allocation program consideration, all available disposal options, resource recovery, transportation, recycling -- you could also factor in with the right economics the ORFA process, which was alluded to earlier -- in determining what approach would produce the least cost.

In its most general application, it can determine what kind of facility should be installed, where it should be located, and how large it should be to dispose of the given amount of regional waste. For input from this computer planning model, it requires the specifications of the source, the amount of waste generated, the locations and capacity of

available disposal sites, the processes that can be located at those sites, and the cost -- the fiscal characteristics of these processes. It will then size and site the available processes, at least with regard to cost.

A key capability of the model is its ability to balance the economics of scale potentially achievable from installing large facilities, against the increased transportation costs that typically result from centralization decisions. Although the model was primary, it's capable of providing economic analysis for a wide variety of other waste disposal problems. These could include: the expansion of existing facilities as an alternative to installing new ones; estimating savings in transportation costs from allowing intercounty waste flows; determining the most economic use of temporary transportation after the planned resource recovery facility comes on-line; analyzing alternative disposal options, one or more planned existing facilities; and analyzing system-wide effects of changes in quantity or composition of wastes as a result of increased recycling.

In each case, however, the model only addresses the economic effects of the particular waste management strategy. It is not designed and does not address the political or environmental issues. In distributing the PC wrap and evaluating that, the Board agrees to assist counties in using the best analytical tools currently available for exploring bona fide what now appears to be a growing opportunity for reducing waste disposal costs in New Jersey through a regionalization option.

One of these opportunities was announced late last year by the County Executives of Bergen and Hudson Counties in a news conference held in October. The Executives announced the willingness of the counties to consider consolidating one or more resource recovery facilities or landfills to their

collective mutual benefit. Subsequent meetings have been held with the counties, the HMDC, and the DEP to explore the technicality and feasibility of that proposal.

The BPU is currently associated with siting and constructing landfills and the uncertainties of waste flow projections. The Board's staff is assisting the counties in analyzing the economics and great impacts of regional approaches, and is continuing to meet on an informal basis with representatives of these counties. The counties have the responsibility to develop and implement solid waste disposal plants. Absent some major change in Federal law and Federal tax law, the incentives for private ownerships of resource recovery facilities and landfills in New Jersey seem nonexistent.

Thus, for the foreseeable future, I would characterize these facilities as clearly being publicly owned. Given this pattern of ownership, it is obviously important that counties can be given incentives to explore and plan as regions wherever the underlying economics prove compelling. These incentives could take the form of preferential access to tax-exempt financing, regional planning grants, accelerated processing, needs assessment review, and possibly preferred access to waste exchange flows to make up for potential waste flow shortfalls in a particular county or at a particular facility.

Further, the counties must be assured that serious reevaluation of regional options will not be construed as shortening their responsibility to the regulatory community and leave the State with-- As noted previously under the McEnroe, numerous State agencies evaluate these contracts. At times these reviews bring State agencies into conflict over what risk should be assigned to consumers over vendors. In some sense there is a relative risk assignment, with county officials having one view, and a State view being quite different.

This process could be significantly enhanced by the explicit requirement to evaluate regional options, and, where appropriate, creating regional financial viability should be improved with the broadening of the waste flow basis used. Hopefully, the associated significant debt service cost could be decreased and result in lower tip fees to consumers.

In conclusion, then, Senators, the Board is actively for solid waste. Additionally, the BPU has adopted and distributed to counties the PC wrap file and we are committed to exploring all opportunities to mitigate the cost of supporting the State's solid waste disposal infrastructure. Mike and I would be glad to answer any questions you might have.

SENATOR COSTA: No questions.

SENATOR DALTON: I wanted to get the Board's thoughts with regard to the payment and fines assessed by DEP for the improper operation of an incinerator, and I want to-- If you could, just explain to me your general philosophical approach with respect to these penalties as to who should bear the burden of that cost.

MR. BEVAN: Typically -- correct me if I'm wrong -- a penalty or a fine against any utility, be it a solid waste utility or typical utility, is not assessed against the ratepayer, but is against the utility itself.

Now, in the case of a county operating an incinerator, it gets to be a bit more difficult as to whether it's the vendor's responsibility or the county's. I think we would look to the contractual relationship between the county and the facility to make a determination as to who contracted for that responsibility.

And, in a gray area, as we testified to a year or two ago, we may be asked to be drawn in to resolve that dispute.

SENATOR DALTON: So, the contracts that have presently been reached between a vendor and a county-- Again, generally speaking, who is bearing the burden of that cost?

M I C H A E L K E S S L E R: That depends on the circumstance of a particular violation. It's not all one or the other. Various counties have allocated it in different ways. There's no real clear dividing line.

SENATOR DALTON: Could you provide the Committee with information with regard to the present contractual relationships between counties and vendors, and provide us, if you could, with who is bearing the burden of the cost for environmental fines? That's a concern of the Committee.

Refresh my memory, if you can. Under McEnroe, your review-- You have review authority over those contracts. Is that correct?

MR. BEVAN: Yes, that's right.

SENATOR DALTON: Your review authority is based upon, again, walking the tightrope between protecting consumers and at the same time not chasing away potential investors.

MR. BEVAN: Yes.

SENATOR DALTON: Okay, what sort of rule of thumb do you utilize in making the determination as to who should bear the cost of fines and penalties?

MR. BEVAN: Again, I think I'll go back to what I mentioned before. Typically, the rule of thumb is that it is not the burden of the ratepayer to pay a fine, but typically it is the responsibility of the facility. And surely, the standard in the statute that you look to is in terms of expenses paid, or is an expense truly incurred. Is this item truly incurred on a rate base, and refined properly? It is not considered imprudent.

SENATOR DALTON: The second question goes to if, in fact, a burner, an incinerator, for one reason or another, does not take in the waste that it anticipates, and as a result is oversized, okay, who bears the burden of that cost?

MR. BEVAN: Again, Senator, it depends on the contractual relationship.

SENATOR DALTON: You review the contracts?

MR. BEVAN: Yes, we do.

MR. KESSLER: In most instances, Senator, the counties involved in the arrangements have made a commitment to deliver a certain amount of waste per year. If the county is unable to do so, there are various arrangements for the county -- the ability of a vendor to bring in outside waste.

In some instances, there is a hierarchy of sources, being other counties in the State, other counties with resource recovery, or out-of-state waste. Typically, it's the facility's responsibility.

SENATOR DALTON: Do you foresee a problem as we have more and more counties coming on and bringing on resource recovery projects, that the other counties in the area may potentially not have the waste to bring to that facility with excess capacity, and as a result we may start looking to bringing in out-of-state waste?

MR. KESSLER: I think that's certainly a possibility.

SENATOR DALTON: In any of the contracts that the counties have reached with vendors, is that indeed more than a possibility? Is it actually rated to the contract?

MR. BEVAN: Yes, in Essex County I believe it was a three-tier approach. If you have a shortfall, the county is obligated to make up the shortfall. And the vendor could, in fact, go out and, I think, initially look to spot market waste. That's the way it's characterized. First, they would go anywhere in the State of New Jersey. If they couldn't obtain the waste there, the spot market with resource recovery, and anywhere in the State was second, and third was out-of-state.

Yes, there is conceivably in the contract a possibility of that, if waste falls short.

SENATOR DALTON: Is that the only contract presently signed, that you know of that addresses that issue?

MR. BEVAN: Of the approved ones, I think it is. I believe so.

MR. KESSLER: The Hudson County contract also addresses out-of-state waste.

SENATOR DALTON: In a similar fashion?

MR. KESSLER: There, the concern is much more trying to find a way in the county system approach to keep out-of-state waste out of the facility, but it's been a specific factor in the contractual negotiations. Some of the parties have gone over that in great detail.

SENATOR DALTON: Let me ask you a further question: If, in fact, in Essex, there is a need to bring in out-of-state waste, is that out-of-state waste treated any differently, as far as rate, as opposed to in-county waste?

MR. BEVAN: I guess the best way to describe it, Senator, is the costs are basically picked up by the ratepayers of Essex County, whether they make the anticipated waste for the numbers or not. So, basically, the ratepayers of Essex County are picking up most of those costs.

SENATOR DALTON: Let me try to phrase it in another way: If, in fact, Essex -- because of it being oversized for any reason -- brings in out-of-state waste, what I'm saying, is that waste treated -- from a rate perspective; that out-of-state waste -- any differently than the in-county waste? And, if so, how?

In other words, are the out-of-state people going to catch a break as far as cost?

MR. KESSLER: That's a possibility. That depends on what the market, if you will, for waste is at that time. If the facility is able, or if the operators in the county are able to bring in waste at a rate charged at the gate for Essex County waste, that's what they would charge. If the waste being delivered falls to a level where the facility cannot

operate efficiently, effectively, environmentally safe, then there's a possibility that some of that waste may be, in effect, purchased by offering a lower tip fee.

SENATOR DALTON: So, there's the potential, then, of out-of-state waste being charged less than in-county waste?

MR. BEVAN: Yes.

SENATOR DALTON: Did you approve the contract?

MR. BEVAN: I did not. The Commission did.

SENATOR DALTON: The Board approved that contract. That makes no sense to me. Okay. And that is exactly what we've been talking about here this morning. And that if anything comes out of our hearings, we're going to have another hearing on this issue. We don't want to preclude that, and we're going to take action in this Committee to preclude that from happening. That is an injustice to my mind, whether it be Essex County or any other county.

I'm going to try to take steps to make sure that didn't happen. What do you find the premise of the issue of sizing of these plants? What is it being based upon, with regard to the level of recycling?

MR. BEVAN: Let me go through that. We go back a few years, Senator. Initially the concept that it's based on is a DEP development of tonnage for that county.

In the case of Essex, Hudson, or Bergen, we may go back to historical data of what was transmitted in the HMDC -- difficult numbers to get a handle on. They are not as accurate, surely, as we would like. There is the requirement to build in the recycling component, the 20% recycling.

MR. KESSLER: Twenty-five.

MR. BEVAN: Yes, 25%. But we are finding two things. The numbers are not built on credibly solid waste ground. Municipal solid waste is a very inaccurate thing to gauge.

Secondly, I think we found -- I surely didn't know it in '85, but we're finding it now -- there is some play in the

sizing. If you say it's a 1000-ton-a-day facility, there may be a 5% or 10% play, up or down, on that number.

So, you may be saying it is a 1000 tons a day, but, in effect, it could be a 1100. There is some flexibility. As we move further into the area, we may learn more about that flexibility. It's not dead center, yes, actual.

SENATOR DALTON: Who's coming up with the determinations with regard to the waste flow?

MR. BEVAN: The tonnage itself is detailed studies, the analysis, and the submissions.

SENATOR DALTON: Is that information, to your knowledge, generated in-house by DEP?

MR. BEVAN: I believe largely it is, in consultation with county data, to the extent that it's had.

SENATOR DALTON: I would assume as a result, consultants make some recommendations as to levels.

MR. BEVAN: In some cases it's a consultant, and in some cases it's not, yes. I may add also to the extent that those are submissions before the Board, they are also public information.

SENATOR DALTON: With regard to the Warren County facility, where did the data come from?

MR. KESSLER: I wouldn't be able to tell you specifically.

SENATOR DALTON: Was the data accurate that was the premise of the size in Warren County?

MR. KESSLER: The Board felt that it was, at the time it approved the contract. It has not been shown.

SENATOR DALTON: It has been shown not to be accurate to any great extent. Let me turn to another form of solid waste disposal; that is, utilization of transfer facilities. What role, what regulatory role do you play with regard to transfer facilities?

MR. BEVAN: To the extent that a county has not formed a county or municipal utility authority, there are some in the State, like Bergen and Hudson County. The Board has regulatory jurisdiction over that disposal facility.

SENATOR DALTON: With regard to the Bergen transfer facilities, where did the data come from, due to the amount of waste that would go through those facilities?

MR. BEVAN: This is only an assumption, Senator. I don't want to preface it as that. I thought it was taken primarily from HFDC flow data.

SENATOR DALTON: Has that data proven to be correct?

MR. BEVAN: It has not been proven as correct. There have been significant, significant differences with the initial data. There has been improvement over the last 9 to 12 months. What we found were significant waste flow violations, wholesale waste flow violations, in that county. Collectors were simply not taking the waste to the county transfer station.

SENATOR DALTON: What, besides Warren and Bergen County transfer stations, other facilities have you approved or are presently operating that you approved the contract for -- where you approved the contract?

MR. BEVAN: With respect to the transfer station, Senator, it isn't a contract. It isn't, in fact, at the typical rate analysis that we would give to any other public utility. There are two transfer stations in Essex County. There are two.

MR. KESSLER: One company. They operate three facilities.

MR. BEVAN: There are three facilities in Union County, two facilities in Morris, one operator; two in Somerset, and two operators. I'm missing one.

SENATOR DALTON: Besides the Bergen transfer stations and the Warren resource recovery facility, generally speaking, what has been-- Have those facilities been getting the waste flow?

MR. BEVAN: It depends on the counties. To some extent, it obviously goes by the waste. If you can transport waste out-of-state for \$40 a ton, and the cost is \$100 a ton at a particular transfer station, there obviously is a compelling economic statistic to cheat on the waste flow.

SENATOR DALTON: That leads me to my next question: If they are, because of economic reasons, going to avoid the transfer station, what steps are there to preclude avoiding the burn locations?

MR. BEVAN: I would argue, the arguments are identical. If those rates are so high, it doesn't matter.

SENATOR DALTON: Based upon that knowledge, do you think we're oversizing facilities in this State?

MR. BEVAN: I would say this: I think some of the initial projections that we looked at probably were a bit too high, yes.

SENATOR DALTON: Do you have any plans to go back and take a look at some of these things in light of the Warren situation?

MR. BEVAN: I think one of the things we're trying to do, and it tries to tie in the future planning that we do with those five counties that are still in the process of review, is to try to do more up-front. Given the knowledge that we've gained, we try to run those kinds of scenarios on the computer modeling, running it at 20%; running it at 10%, and 40%.

SENATOR DALTON: The fact of the matter is, you don't have the ability to go back in, do you, once you contract the size?

MR. BEVAN: No, no, really not. The McEnroe process is hooked into that up-front contract.

SENATOR DALTON: And how many resource recovery facilities have gone the McEnroe route that have received permits?

MR. BEVAN: Four.

SENATOR DALTON: Are those four facilities-- We're effectively locked out, as far as looking at size, aren't we?

MR. BEVAN: Yes.

SENATOR DALTON: How would you characterize that? Do you think that is in the State's or county's best interest that we're locked out now?

MR. BEVAN: It remains to be seen as to how significant that is. I hope that the sizing figures are fairly accurate.

SENATOR DALTON: Well, we're 0 for 1. And Murray, by the way, this isn't an indictment of you, okay, or the Board. I think what I'm getting at is an indictment of the process, the McEnroe process.

Let me ask a couple more questions: What are your thoughts? What would be your thought, as far as making a State law that a vendor in a county has to go the Gloucester County route; in other words, fully regulated?

MR. BEVAN: I think we still see some advantages to the McEnroe review, if it were done properly. Obviously, we had a vested interest for a time that advocated that as the preferable route. But, I suspect that there are sufficient protections, and we've learned, to some extent-- There's been a learning at some of the counties' expense. I'm fairly confident that the public can be protected by an up-front McEnroe review.

SENATOR DALTON: Let me ask you this: Have you done an analysis comparing vendor costs, including consultants, with regard to Gloucester County and the three other permanent facilities that have gone the McEnroe route?

MR. BEVAN: We haven't done any detailed analysis.

SENATOR DALTON: Can you do that detailed analysis?

MR. BEVAN: We can do tip fee.

SENATOR DALTON: I'm not asking you tip fee. I'm basically asking you cost vendors.

MR. BEVAN: Yes. Yes.

SENATOR DALTON: You do have that ability. Can you provide that data to this Committee?

MR. BEVAN: If you would like a more detailed analysis of traditional utility versus McEnroe, yes.

SENATOR DALTON: Most of the-- You can make that fundamental assumption, that the cost is funded. There's cost borne by the taxpayers of the particular county, period.

MR. BEVAN: Not all of the costs are borne by them, but clearly a substantial amount are.

SENATOR DALTON: Can you let us know what costs are borne by the taxpayers? Which costs are?

SENATOR COSTA: In your testimony, you refer to a PC wrap that was distributed, a personal computer adaptation distributed to 15 counties and DEP, HMDC, and two members of the academic community. That is to help them in siting, and see where they are economically; what's best to go to, a large incinerator or recycling landfill?

MR. BEVAN: It clearly runs the economics.

SENATOR COSTA: Who's taken advantage of it, and has it succeeded in any shape or form?

MR. BEVAN: We feel fairly good. Fifteen counties affirmatively asked for it. That's insight I feel good about.

SENATOR COSTA: Of the 15-- The ones that were having problems with this, were they any one of the 15 counties?

MR. BEVAN: What particular problems, I'm sorry?

SENATOR COSTA: The ones you just talked to the Chairman about: Warren, Bergen.

MR. BEVAN: Bergen, Essex, and Hudson have been engaging in a regionalization analysis for them.

SENATOR COSTA: Did they have this PC wrap before they started?

MR. BEVAN: Unfortunately, they didn't. If we had it to do over, it would have been better if we did it in '85.

SENATOR COSTA: When was this done?

MR. BEVAN: This winter.

SENATOR COSTA: After the fact?

MR. BEVAN: Well, after the fact for some of the counties, yes, but not after the fact for any of the others that are considering any options.

SENATOR COSTA: Is it helping anybody?

MR. BEVAN: I think it is. I think it could, in fact, help a great deal if more counties were to use it. Our staff is very willing to work with people, and can also lay out some of the other parameters that we talked about, including ORFA. If we can get the good data on it, yes.

SENATOR COSTA: Have any of the counties come to you for assistance? Did you send this out?

MR. BEVAN: Yes.

SENATOR COSTA: About how many?

MR. BEVAN: Fifteen initially met with us. Three or four have had subsequent follow-up runs, and we're hoping that more will be there.

SENATOR COSTA: Could you tell us who they were?

MR. BEVAN: Bergen, Essex, and Hudson have used it already.

SENATOR COSTA: That's it. Didn't they start before you even came out with this?

MR. BEVAN: Regionalization process--

SENATOR COSTA: Since you put this out last year, have any counties come to you for assistance in finding the best way they can approach the solid waste problems?

MR. BEVAN: Aside from the initial contact, realizing we've only had it around for six months, the three counties that I mentioned before have; additional counties have not.

SENATOR COSTA: The ones who really need it, who have not started, have not come to you?

MR. BEVAN: Aside from initial investigation and discussion, no; however, it is a program that they can take back to their county. To the extent that they may be using it, and not asking for assistance, I don't know where that is at.

SENATOR DALTON: We're wondering if PC wrap is going to make number one on the hit parade?

MR. BEVAN: Let's hope that it does. We can encourage that.

SENATOR DALTON: What about the data that we asked for?

MR. BEVAN: Is a month too long?

MR. KESSLER: The environmental question concerning the fines and the environmental fines could be pulled to go, I would say, within a week.

SENATOR DALTON: Can we get the data within three weeks' time?

MR. KESSLER: The total?

MR. BEVAN: We'll shoot for that.

SENATOR DALTON: Thank you very much. I appreciate your time and testimony.

I want to now call on Ed McManimon. And Ed has been before this Committee relative to this very subject. Earlier I saw him sitting there very patiently in the front row. Ed, you've been very patient with this Committee, and we're very appreciative for that patience.

E D W A R D J. M c M A N I M O N, E S Q.: I don't have any prepared remarks. Frankly, I'm a little troubled. I'll make some general comments. I came here with the idea to suggest some things about the process. It was with the idea to simplify the process, not to-- What you may want to do is complicate the process by additional regulation, not less regulation.

SENATOR DALTON: We haven't said anything yet. Hopefully we've been questioning-- I'll let you be the judge of that.

MR. McMANIMON: I guess what I want to do-- Our firm has represented a number of counties and constituent agencies that have sought to take a process and achieve what is achievable within what is a very heated political environment to achieve anything. I want to remind this group that their involvement at all was a product of Chapter 326 of the laws of 1975, which was signed into law in 1976, and essentially imposed what was viewed at that time by the Legislature as a regional solution to what will be a very local problem.

Solid waste had always been handled by the municipalities. It had never been handled in any way at all on the county level. The DEP was not only closing landfills, but advising the Legislature that they were going to be closing most of the landfills that were the usable source of disposal for the solid waste municipalities that were collecting, and they could no longer rely on 567 municipalities trying to create -- when they were certainly going to continue to do what they always did -- a solution. So, they imposed on 22 solid waste districts -- 21 counties and the Hackensack Meadowlands -- a requirement to get into the business, and it recognizes that it is now their burden to develop a regional solution for the municipalities that were located within the county. That was at a time when the analysis of garbage had nothing to do with county boundaries.

In the course of trying to develop a solution, it became clear to everybody that was a county official, that it certainly could have welcomed perhaps in 1976 and 1980-- They felt it wasn't a county problem. It was a State problem, and it certainly couldn't be solved at the municipal level. So, most of the counties went kicking and screaming into the business. They didn't want to be there, and most of them fought it. Many of them were under orders, and they were told, if they didn't do it, DEP was going to come in and solve the problem for them.

SENATOR DALTON: Is that your historical perspective from 1977? Senator Feldman indicated to me that when the State gave people the impression that they were going to get involved in the situation, that it was the counties which said, "Let us do it." So, that was Senator Feldman's perspective. Regardless of whose perspective is correct, we have this problem.

MR. McMANIMON: From the standpoint of having-- Speaking at NJAC, and doing other things, in the late '70s this was the biggest problem that the counties had to face. We're simply not going to do--

If we do nothing, they are going to come in and solve the problem, and, frankly, for a number of years, without naming the counties, there were counties that took that as their plan. There were deadlines for developing a plan and implementing the plan. Consultants were hired to identify the source of waste. No county official knew where the hell the waste was with regard to their county.

So they hired engineers and consultants. They met with DEP. They did their own studies: "Here's where the waste comes from. Some of it is not in your county." So they developed what was a plan, and it took years, not months, to simply develop a plan that identified where the waste was, where it was being disposed of, and what landfills existed in the county.

Mercer County: Where would they take it? They were taking it to Burlington County in landfills, so the process was simply very cumbersome, very time-consuming. And then, of course, the implementation of a plan, once you identified where it was, became politically very difficult. The requirement now is for each county to be essentially self-sufficient.

Assistant Commissioner Deieso-- I caution you not to ignore some of the things that he says about this, because I think we're at a stage -- and I know it's not likely to be

headed by you, but -- where I think we need to step up our activity to assist incinerators to be built, as opposed to frustrating them. Since 1976 we've gotten to a stage where we've built one incinerator. We've closed virtually every landfill, and there hasn't been the development of any solution.

The reason is, solid waste management made it very clear that the Legislature said you shall-- I don't mind calling them incinerators, the amount of power that is generated, which was referred to here, in terms of how many households it can light. I'm looking at it in terms of the amount of money that it generates. You have Mercer County's plant where the bid to operate it was \$7 million a year. The amount of energy is almost \$8 million a year from generating power.

I'm not saying that the offset means anything, but it's fairly substantial dollars. And from the point of view of power production and PSE&G, they are forced to get into these things, but they treat resource recovery as power plants and garbage facilities. They are only power plants because it helps to soften the blow by generating.

The perception of the county, where I've been-- I've spent a substantial amount of time as a lawyer in the last 10 years trying to develop a believable solution in various counties. Some are landfills. Some are landfill-licensed agreements out-of-state to find a way to develop solutions, while other things are studied. But you could study this ad infinitum.

There is a point where you make a decision to do something, and you try to achieve that in a time frame that makes some sense. I'm very concerned that there are phenomenal conclusions being made about this Warren plant. I don't think the Warren plant is oversized. I think that for this group, or for any other group-- Oh -- and I've heard it in various counties that are in different stages of discussion -- about

how big their plant ought to be. I've watched Atlantic County redo their numbers and find out that their numbers were too high, in the sense of engineering. Some of the caution has probably been helpful. I don't think you're going to find that the Warren County plant is too big. I think you're going to find it is too small. I think you're going to find out that the kind of growth that happens in that community, simply of them not getting the waste in that county to come to that facility--

You have to definitely have people who are checking every exit route, and checking the manifests of the trucks that have waste that go through there. While there's only one plant, there are going to be people trying to find other solutions. There are documented matters in Mercer County where the people who are obligated to dispose the waste in Mercer County were taking it to Burlington County. They were going to pay \$78 in Mercer, and the rate in Burlington was \$35. This was the same company that was going to receive \$10 a ton; the same company, for every ton of waste, not just their own waste, but for every ton of waste that any hauler, that any entity had-- When they brought that to the transfer station for handling, that company got \$10 a ton.

They took their own waste on trucks, which, of course, they argued before the BPU was inadvertent, but it happened more than once. And BPU documented a number of incidents where it was diverted. They still charged \$78 a ton for it to the people they collected it from, but they took it to Burlington County and paid \$35 or \$38 a ton and pocketed the difference.

We are in an environment which says, "You must try to get around it." The reason I was here before this group is, you give the agents more -- not in the size of these facilities-- I'll tell you, the activity in the DEP, and the BPU, in connection with sizing of the facilities, is so burdensome, it's very difficult to size the facilities too

high. It's not data taken from DEP. I'm not familiar with any solid waste facility incinerator that has been sized without an engineering firm, whether they are good or bad. The engineers who have been hired to do the design work or the planning work, have done studies. They have actually measured for two-week intervals, at different periods or different seasons, what the amount of waste is that's coming in. They also check the destinations and the various manifests that are available, to identify how much waste actually is generated and disposed of within the geographic area that is controlled.

So, there is the ability to generate and develop an enforcement mechanism. You can't rely on DEP or BPU. It's not an indictment of either of those two bodies. It was generated as a problem that the counties were forced to get into.

The counties need to develop the enforcement mechanism. And right now, the statutes do not give a dramatic enforcement ability at the county level -- whether it be two authorities-- How much power do you give to authorities? If they are the implementing agent, they'd better have the power to make sure that what they are given the requirement to do can be done.

So, to me, whether you get into whatever legislation you look at, I'm simply asking in view of the generic few, that incinerators are good. I am here to say I think it would be a significant step backwards for the State of New Jersey to view incinerators as anything but an incredibly-- I'm not saying you shouldn't demand data from the people who make those judgments, whether they be county officials, whether it be DEP or BPU. I just caution you, without trying to sound biased about it, be prepared to look at that data before you conclude that simply because Warren County has an initial bad experience, that's one that should be used as a guide.

SENATOR DALTON: How many times have you mentioned Warren County?

MR. McMANIMON: Around the different counties, it has become a tremendous source of concern that the first operating incinerator has publicly indicated that they don't have enough waste, and that it's not a big facility. Go down to Atlantic County. Atlantic says, "Maybe in the interim we can use the Warren County plant to solve our problem of where to dispose of our waste, because it's only a couple hundred tons a day." So, no other county can use it.

I'm giving you a perspective of what happens at the local level. Everybody is concerned about the Warren County plant, because I think people are drawing conclusions. People who don't want one in Burlington County may be arguing against what's going on in Essex County. Gee, what happened in Warren? You have a whole lot of people that would not like anything to be done. Whether it's resource recovery or sewers, there are people who simply don't want you to do anything, because any action creates a reaction by people, because there is an impact.

DEP said they are not here to say there is not an impact. Whoever is adversely impacted comes and says, "Don't do it." Now, it's almost like they have a vehicle to justify their complaint: "Look what happened in Warren County." And all I'm saying to you is, I caution you to question it, if that is used. Or if it is thrown up as an example of, "We better look this over," that there be a history of that.

First, we've got 14 years. If you were having this hearing in 1980, I venture to say you'd have every county representative out here saying, "Go for it. Build 25, not 21. You pick the site. You decide at the administrative level or legislative level. We sure don't want to do it. We don't want to put a landfill in our own counties.

"You do it, and we're going to blame you when the people complain."

This is the process -- I guess, the governmental process. My concept of the Solid Waste Management Act, where we've gotten a number of incinerators on-line, was conceived as being manageable. The State didn't want anything to do with it, and they made it quite clear they were not going to do it: "Review the process, but take your two years or six months. When you don't do it, we're going to cite you for failure. We're not going to go for it. After you've lost your elections, it's your problem. You solve it. Don't ignore the fact that there is a perception, 'Let's stop the process and look it over.'"

It's hard for me to say, "Government, don't do that." But if you stop it, it's at tremendous economic loss, because most of the places have spent millions of dollars, not hundreds of thousands. They clearly have contractual obligations and damages if, for any reason, this process stops.

I listened to your questioning of the representatives from the BPU. There is no contract in Gloucester. There is no ability to say, "Whose fault is it?" and then, "Who pays in the event that there's a problem?" Because the process went through a rate base -- rate of return plan that's a true utility owned and operated by a private party. There's no contract between the private party and the county. It's just what the BPU says when they go there. Whatever increase they have for any operations, they say, "Pass it on to the ratepayers," and all the county can be is an intervener in the process. Whether that proves to be a good way to do it or not, again, is going to require time.

I wanted to say, or use this forum as an opportunity to also ask, when you get into legislation, to look at and treat publicly owned facilities differently than privately owned facilities. I am here to encourage you to reduce the process and obligations. Whether you've got a publicly owned facility, even when it's privately operated, it's so incredibl

costly. It's great for private parties, attorneys like myself, or engineers, for accountants, for economists. We get into this process. A simple McEnroe, you can't publicly bid a facility, so you decide you're going to get proposals and determine who has the best proposal, not necessarily on the cheapest construction, but maybe the cheapest operating costs. That's something that occurs every year for 20 years.

You measure people and you look at their experience, their technology. You go through all these things.

Well, if I could show you what has to be submitted at the end of this, requests for qualifications, you have 10 or 20 that say they are qualified. Someone is reviewing every one of those -- it's usually a number of professionals -- and then they come down to those who are deemed to be the most qualified. Even though the statute isn't real clear, then you can narrow it down to only those you feel are the best qualified -- as to those who are all qualified -- then you get proposals. Proposals for incinerators probably cost -- whether it be a Westinghouse or Foster-Wheeler-- It takes close to three-quarters of a million dollars to submit, because they have an engineer designing it, an attorney reviewing contracts, and inspections. They have a variety of things to be done, and then that proposal gets submitted. That gets analyzed by people like me, and then there's a determination as to who is the best vendor, and you negotiate with a vendor or two vendors to negotiate the contracts. And then you go to the Improvement Authority, or another agency. And in many applications, after you get through the process of having their comments, then you go back to the negotiations. It then has to go to the BPU, the local board, DEP, and Public Advocate. All four of them have comments on it. What you have to submit to them is the RFQ that you received, and the receipt with the documents -- RFP, and the receipt of the documents, the minutes of every meeting you held in connection with it--

SENATOR D'AMICO: I'm familiar with the process because I was a Freeholder until not too long ago. Your point essentially is we got started down this road with all these processes as a result of policy decisions that were made by the Legislature and the Governor some 10 years ago, or whatever. You're saying to this Committee, now that all of this is in motion, "Don't lunge in a completely different direction without taking this into account."

MR. McMANIMON: I am saying that, yes.

SENATOR D'AMICO: Setting that aside for the moment, would you also be saying to the Committee-- You wouldn't, I assume, be saying to this Committee that we shouldn't take another look at this subject and perhaps start another process.

MR. McMANIMON: Starting another process would be great.

SENATOR D'AMICO: Such as looking at ways where we can reduce the volume of material that would have to get into the process that you're talking about?

MR. McMANIMON: Yes, and I'm not a technical expert in the area. However, when I listened to DEP-- I find myself in a weird position where I fight them all the time, and now I'm agreeing with them on this Committee. I have a note, "Defend DEP?" It's a difficult process for me.

But their point should be well-taken. Whatever the solutions that you have in mind, even though recycling is a lot easier for the governmental process to embrace than incinerators, than certainly landfills are; processes that are going to take the same kind of time I'm talking about, because-- Even though you can source separate things, when they've gone through a process, it's not going to be so simple to just turn it off and decide that it's okay to do it.

SENATOR D'AMICO: At this time, what about the bottle deposit approach? Isn't that something that we can do in this State without doing something that's inconsistent with the process that you described?

MR. McMANIMON: I sat through the bottle bill proponents in Mercer County. So, I spent a lot of hours going through that process with them. It was very clear. I guess there were two things. I agree with Assistant Commissioner Deieso who indicated the primary motivation of that was litter control, more than it was a process. Bottles are easily removed from the solid waste stream. It may cost more in the sense of technically processing to pull it out, but that's deemed to be one of the easiest things to pull out at the source, without going through bottle bills to bring them back to whoever it was that generated them. The concept is to reuse them in the same form that they started in, as opposed to what is a normal recyclable process.

All of those things may make sense, when you listen to the pros and cons of the bottle bill, the same way they talked about assurance and quality control. Look, if all these things get into bottles-- Carrying these things-- I'm not saying it's easy. How are the little grandmothers going to carry bottles that weigh a lot more, rather than plastics? There are a whole variety of things. The bottle bill is too simplistic. The bottles are out of the waste stream in all of the plans that are dealing with every incinerator. They are not burning bottles. So, the process--

I listened to Senator Cardinale, and he talks about percentages of recyclables. Certainly sludge and yard waste aren't in the definition of recyclables. You can say that doesn't even count toward the 25%. If you wanted to count yard waste recycled, well, then you're up to 45%, if you have 25%. So, there's a lot of misuse of terminology. I'm just concerned that we be careful as we embark on something that is going to be an incredibly expensive venture as you proceed down the line. That's enough of a soapbox.

I did my bit about the McEnroe process, how incredibly cumbersome and costly it is, for what is essentially a

government owned project; the same way you have a sewer facility that doesn't go through any of that. I would like you to focus on simplifying it, because-- I got shipped to all four of these State agencies, and somebody is going to read them. Because they are in-house people, it doesn't cost money to do that, because they staff up for more people. I'm not saying it's not a legitimate basis for them to interact, but should every document that was involved by the process be reviewed? That's not what happens in an authority, when they do the financing before a local finance board.

I hope you hold hearings with regard to the process itself. Except, in addition to that, you have a phenomenal amount of waste. The Gloucester County people are employed for a franchise in South Harrison, and we get paid for that. It's tremendously cumbersome for what they say is a publicly owned and operated landfill. They got a franchise, which meant they have a monopoly. But they have a phenomenon from the Solid Waste Management Act. Solid Waste says you have a plan, and it has to be signed off on the economics by BPU. This isn't a sign off on the franchise, just a sign off on the franchise of the economics of that reaction.

If you seek a franchise -- which personally I think everyone has to do -- you enforce. Then, all of a sudden, you become a utility that has rate cases every time you have a cost increase. And there's a cost for the rate case that's enormous. Joe Clay, who operates this, has said to us, and we've drafted letters and legislation to try to have a more simplified way-- Or perhaps the government owned and privately operated project can be treated differently than a privately owned one, because there's a profit in the privately owned one that doesn't exist in the publicly owned one.

I hope that you focus on considerations like that, because they are very critical to the people who have made the decisions, who have the facilities and face the public who does not like the fact that they are there.

And, now, every time there's a rate case, the public gets involved in it. It's a constant festering of the sore.

SENATOR DALTON: Processes raise costs. And, secondly, if we make any recommendations, try to write into law the ability for locals to control and enforce-- Waste flow is something that we're very mindful of and will make recommendations with regard to.

MR. McMANIMON: Okay, thank you.

D A V I D C. M A T T E K: My name is David Mattek, County and Municipal Government Study Commission, a legislative commission chaired by Senator Orechio.

Our commission has spent several years working on solutions to the solid waste management problem in New Jersey. We have prepared the attached report that you have at your desks now.

Senator Contillo, Senator Costa, and Assemblyman Shinn have introduced legislation that implemented the conclusion of this report. Our studies confirmed that resource recovery facilities, including mass burn facilities, are desirable and necessary components of a comprehensive solid waste management strategy in New Jersey. The three components of the strategy are resource recovery, sanitary landfills, and recycling.

We're lucky that the Legislature chose, back in 1975, to direct us to go to resource recovery facilities and county siting, I think. We've had 14 years of very bloody wars trying to site the facilities. But we're through that process now. Now we're to a new place where the basic problem that we've got to deal with is implementing the plans and including the construction of the facilities in those plans.

I was the Aide to this Committee in 1974, when Senator Feldman moved this bill through the Committee, and I think his presentation to you of what the mood was at that point in time is accurate in the sense that municipalities were willing to give up their power to decide where solid waste facilities

should be in the State today, and counties were willing to accept it, and this Committee and DEP were willing to buy that step, too. And it was in the next several years after that when counties realized how difficult a problem this was.

The intensity of their feelings more closely approximates what Ed McManimon was talking about earlier. Now, we've got 20 resource recovery sites and 14 sanitary landfills. All 21 counties have plans prepared with facilities in them.

New Jersey has been spectacularly successful in closing inadequate landfills. We've closed more than 300 unacceptable environmental-type landfills that we previously depended on. We've been very successful in forcing all out-of-state waste out of New Jersey. We are doing a great job in recycling. We've done a pretty good job in siting the new facilities. But, our problem is implementing the plans that the counties have prepared at great sacrifice.

The basic problem before us today is not the selection of the technology or the determination of disposal sites. These things have been accomplished through the expenditure of hard work by DEP and, particularly, the 21 counties over the last 14 years. You must now devise a policy that will allow us to construct the resource recovery facilities contained in the plan, and this has to be done in a timely manner.

Pennsylvania has made it clear to us, as we made it clear to Pennsylvania as far back as 1972, that we were going to kick them out. We failed by trying to do that by statutory means, but we succeeded in going through a planning process to force Pennsylvania out of our State. Pennsylvania and Ohio have embarked on the same kind of process now to force our waste out of their states.

The only way we can have the capacity to deal with the waste that we generate and that we are responsible for dealing with, is constructing the facilities. Thirteen counties now

have facilities in operation or under construction. It would be a grave error to require those counties that have gone through the difficult troubles of siting and constructing facilities to have to take the waste of those counties that did not go ahead.

Our recommendations as to how we can achieve the construction of the plans are contained in Senator Contillo's, Senator Costa's, and Assemblyman Shinn's bills. The basis of the thrust is to give DEP the power to step in and construct the facilities if the counties do not move ahead in a timely manner. And we recommended in our report -- and it hasn't been taken out in the legislative bills that I've mentioned -- that we also utilize the concept of a carrot by further changing the financing relationship.

It's not the same way that DEP recommended to you this morning in Assemblyman Shinn's bill and the other bills, wherein we should have a penalty paid on a percentage of the construction costs to the State at the time that the State moves in and constructs the facility. We don't agree with that concept. We don't agree with the concept of putting a penalty on at the time the State steps in to construct the facility in those counties. But we did recommend in the report that the transfer stations pay the same taxes that are paid by all landfill disposal, resource recovery facilities in this State; that the transfer stations pay even more money.

That is, of course, a very difficult, very, very upsetting thought about the high costs. The escalation of costs that occurred in January of 1988 was so great that it's a difficult thing to say, but this is another mechanism that could be used to speed up the process of the construction of the facilities.

We were also upset with part of DEP's performance. We think that DEP moves a little bit too slowly in its approval of permits. And we recommend something contained in legislation

by Senator Lynch and Assemblywoman Ogden to require DEP to use permit expeditors in the review of all solid waste management permits, and to require that time limits be added to the period of time which DEP could use to make a decision on the plants. The experience, since we wrote our report, further confirms to me that these two mechanisms are something that should be pursued by this Committee.

I'd just like to make a personal comment. This is not in our report, but one thing that was on your list of questions was, "Should we consider the idea of rate averaging?" I would like to suggest that it would not be a positive step forward; that we should keep procedures in the law, so that everybody will try to economize to the greatest extent possible. There are great entities which tend to work against trying to economize in the construction costs and the other costs of the facilities.

One of the questions that you raised today, and you spent quite a bit of time talking about, is the concept of downsizing. I think that you should consider statutorily requiring downsizing to be done by DEP at the point where they are involved in final environmental and health impact statement reviews; that you should consider doing it statutorily.

The Commissioner testified today that they do it internally. I think that's the kind of thing that's very, very important.

Part of the discussion that interests me the most, and I felt was most helpful to you reaching a conclusion as to which way to go in the process right now, is when you were talking about the problems of downsizing facilities and the comparable problems of upgrading the amount of recycling that we're working on in this State.

I think in downsizing facilities, an arbitrary figure of 25% for all facilities is probably not the best way to go. It should be worked out individually, taking into account when

the public gets to the final phase, and what is the probable opportunity for recycling in the particular county concerned. So, I don't think you should do that too simplistically by just establishing a rate, and say that in every county you could assume the waste in that county will be cut down to a certain level. I think it probably ought to be handled on a more individualized basis.

But, the other thing that I'm adding, that I think you should consider is: I think we've got enough experience in the last few years with recycling to think that we can go above 25% now. I think a few years ago when you pushed the Mandatory Recycling Act, that was a wise decision for us to set a goal that we're going to try to reach.

The Commissioner said we are up to 16%. Our goal is 25%. I think our goal can be higher. I know from the remarks here today you're thinking along those lines. The Commissioner said there's a fourth category of ways to reduce -- to deal with the waste problem. We concur in our report, and suggest several ways to try to reduce, not to use, materials that will become waste, like different plastics, and work with tax laws, or with other kinds of procedures to keep things from becoming waste. But we recommended it here, and, again, from what you said this morning, I think you're definitely moving in that direction.

I think with the implementation of these various procedures, we're going to keep ourselves as the number one State in the nation at working out solutions on a statewide basis to solving the solid waste management problem. Thank you.

SENATOR D'AMICO: Dave, I would just like to compliment you. I'm new to the Senate, so I did not have an opportunity to have this or see this study since I came aboard.

There are two statements in the report that I think are particularly significant, which, I think, are the subject of a lot of attention already. One is that every ton of solid

waste which does not go to an incinerator or landfill represents substantial savings in both operating and capital costs. I think that is a significant point that we should not lose sight of.

The other is, recycling must be maximized. Mass burning, incineration, must be minimized. Principally, in response to that observation, I think the report does contain some useful suggestions about the packaging. In the example of the eggs, why do they need to be put in a plastic container when the cardboard container, which is biodegradable, would work just as well? Why does catsup have to be put in plastic squeeze containers which are difficult to dispose of, and have to be incinerated? Just as the only way to get rid of them is a sanitary package, as opposed to glass bottles what can and should we be doing about plastic soda bottles? That is a question I'm very disappointed and angry at the DEP for not addressing, when the Legislature ordered them in the legislation to address it.

I thank you for bringing this to my attention, and appreciate the work that's been done heretofore.

SENATOR DALTON: Rob Stuart, New Jersey PIRG.

R O B S T U A R T: Well, it's not good morning, it's good afternoon, Mr. Chairman.

My name is Rob Stuart, Legislative Program Director for New Jersey PIRG.

On behalf of New Jersey PIRG, I want to thank you, Senator Dalton, and other members of the Committee, for attending this important hearing on New Jersey's solid waste policies, and allowing New Jersey PIRG the opportunity to present our views on the role of incineration in the State.

So many people have done it, but I'm actually going to refer to a number of suggestions that were put out. I wanted to say, first, that New Jersey is indeed at a crossroads in the solid waste issue: to burn or not to burn, to reduce, or

recycle, on compost. Though there appear to be several paths to travel, I think it's also important to realize that the situation we find ourselves in today is more as a result of conflicting strategies and uncoordinated approaches to perennial solid waste crises, rather than of a scheme designed to deal with the entire issue.

And while I respect the goal of this hearing as one of offering constructive suggestions as to what the statewide solid waste policy should be doing in terms of incineration, I think it's important to note, even though incineration is the lowest, or low down, on the State's official solid waste hierarchy designated in the Solid Waste Management Act, it has been afforded higher priority in terms of the State's resources and energy, and is only one aspect of the solid waste debate.

We have long been involved in the question of solid waste management in New Jersey. For years we have been tireless advocates for effective recycling and source reduction controls. We support the hierarchy of reduction, reuse, recycling, and recovery before landfilling and will continue to press to have the State implement its policy accordingly. That includes trying to recognize the value of recycling and reusable products, rather than Styrofoam that can only be used once.

Last fall, in adopting a position against A-3107, a bill to establish \$135 million in additional State bond money to be used for the construction of incinerators, NJPIRG stated that until the State matched the resources and energy it had put into incineration for reduction, reuse, and recycling strategies, the State should not dedicate more money to incineration strategies. Since that time, we have adopted a position in support of an incinerator moratorium and for mandating an incineration alternative study. We believe a "cooling off" period on mass burn is critical for the State to research and evaluate the growing questions relating to the

operation of this facility and their environmental and economic consequences. Such a period of reflection would also give us time to consider the issues the Committee has outlined for today's discussion.

First and foremost, NJPIRG believes that the lack of coordinated policy has led to the planning and design of resource recovery facilities far in excess of our needed disposal capacity. Regardless of the technology, reduction and recycling strategies must be factored into the needs assessment. As we have already witnessed in Warren County, there may be a bias towards designing bigger facilities than needed, which removes incentives for aggressive reduction strategies to be employed. Thus, we support the suggestion that an improved procedure be developed to assess the solid waste disposal needs of a particular county area and, ideally, the entire State.

But, again, we must say that, unless we mandate a reduction factor, we will be laying the groundwork for our own worst nightmare.

Accordingly, we support the spirit of suggestions which increase recycling goals and mandate downsizing of disposal facilities, because, as I have noted above, we believe the "rush to burn" mentality may prove to be the biggest deterrent to alternative recycling and recovery strategies. This is contrary to the argument that consumer attitudes support the growth in solid waste we are witnessing.

Specifically on the suggestion of mandating removal of items from the waste stream or mandating a higher recycling goal, NJPIRG emphatically believes that more responsibility must be placed on the generators of such waste and specific product material goals be employed. Where such strategies are in place, like in those states where bottle deposits are mandatory, collection and recovery is efficient, and product design is influenced by product disposal options. Simply put,

if a manufacturer knows that they will ultimately be responsible for the disposal of their product, they are more likely to design a product with end uses in mind.

For the Committee's information, attached to this testimony I have included an analysis of the spending in the Mercer County Bottle Bill Campaign. It may be more provocative than surprising to note here that over half -- 53% -- of the \$528,681 raised by the opposition campaign, came from container distributors and manufacturers located out of New Jersey. Obviously, there is strong reluctance on the part of the industry to take responsibility for the waste they create.

NJPIRG supports the spirit of suggestion number two, that better environmental evaluation be done before additional incinerators or other disposal facilities come on-line. No one knows better than this Committee that the environmental problems facing our State are interrelated, and we do not want to pursue an incineration strategy which causes us to fall further behind in our effort to pursue clean air and reliable and safe drinking water supplies. A cumulative study would also recognize the potential environmental effects of other active or proposed incinerators for sludge or hazardous waste. Given the availability of Right-to-Know data, there would be value in also including relevant information about other ongoing toxic discharges into such a cumulative report.

Further, we recommend that this Committee consider legislation sponsored by Assemblyman George Spadaro, which would require stricter standards on air emissions from facilities than currently exist, as well as establish ash residue testing and appropriate disposal standards.

In closing, I want to emphasize our support for the Committee's action today. We believe the discussion engendered here and around the State will eventually show that there are alternatives to the rushed mass burn strategy we are presently considering. NJPIRG stands ready to support initiatives which

strike at the heart of the solid waste problem by encouraging reduction, reuse, and recycling, as well as measures which will allow us the opportunity to further explore alternatives to over-reliance on mass burn technology.

Thank you for the opportunity to testify. I'd be happy to answer any questions.

SENATOR D'AMICO: Rob, since it came to my mind, there was a statement made, or there was some discussion with Dr. Deieso, on the subject of whether or not a bottle bill in New Jersey -- even if it were related just to plastics -- would create a market or mechanism for disposal or recycling or reuse of plastics which does not exist now, by reason of the absence of a mandatory system. Do you have a comment about what the experience in other states has been?

MR. STUART: Yes. I encourage the Committee to look at studies that have been done. The Franklin Institute did a study of what happened to containers in New York State, or New York, for instance, after implementation of the bottle bill. They found that 67% of all containers -- of all PET containers -- which were utilized in recycling, were actually recycled. There was a higher amount returned, and there was some drop-off in terms of containers that didn't get recycled, but 67% utilization is quite encouraging.

SENATOR D'AMICO: Where did they start out?

MR. STUART: They started at zero, and went to 67% in one year. It's certainly not that, given that we don't have any kind of mandated collection process. The company-- It is true that when we've mandated massive collection of materials such as plastic, PET bottles, companies do respond with technology. Well-Planned Industries is a company that had been private and went public two years ago. It processes the majority of PET soda, plastic two-liter bottles, and they are making a fortune at it. And they look forward to, and come in and tell you that they would love to have New Jersey's bottles,

as well as being opposed to having our bottles sent to a landfill or incinerator. What they need is an effective and efficient collection system, and we would also support the Committee's consideration of that.

I want to focus on the economics, rather than the solid waste strategies. Other states and locales are looking at deposits for batteries, as well as tires, and are having great success. I think that fits into the whole issue of trying to channel or provide some kind of feedback to the solid waste generators, such that the product is -- product design would be influenced up-front to be sensitive to the environment, to be sensitive to recycling. Unfortunately, the way it seems to be going, even as more people are more conscious, and want to be, less and less we're seeing plastic catsup bottles for the sake of being plastic. They are a more rigid plastic. I can't understand why. I've never broken a plastic catsup bottle before.

SENATOR DALTON: There's nothing that you said, or in your testimony, that I can disagree with. I think what you're basically saying is that we have to be determining the role of the incineration here, and the proper role of incineration is not putting all our eggs in the incineration basket. But, what I want to make clear is, does PIRG oppose all incineration in the State?

MR. STUART: At this point, the way the policy is developed, and the way the industry has gotten contracts that basically mandate 75% incineration, and we think that's flawed-- We think there are new studies, some done by Rutgers University, and I mentioned before, Al Smithson -- which I'll submit as part of the record -- and consideration is not the be- and end-all that I think at one time we all thought it was. And there are other processes to be explored. A "cooling off" time -- a moratorium -- would allow those other processes to come to light, as well as send a signal that other processes were going to be encouraged by you.

I think the State has presently a tremendous amount of money, from the bonding issue, from the economic incentive that could have been established, and I'm not an expert in it.

In terms of directing people more towards wanting to build resource recovery facilities as opposed to looking at innovative technologies, that is what preliminary research suggests has gone on in Europe -- gone from the mass burn to other alternative technologies. We hope to get more information on that before we sign contracts that mandate that these facilities receive 75% of our trash in the next 20 years, and input the paying out of incredible amounts of bond money on our taxpayers, as well as an issue that you're familiar with -- mandate that our utilities have to buy the power from fairly inefficient energy-efficient facilities. We should have all the pieces of the puzzle before us.

SENATOR DALTON: Let me rephrase the question: What do we do with the contracts that have already been signed?

MR. STUART: I'm not an attorney. I think we should explore ways in which -- what options are available for those counties that have had agreements signed, and analyze whether or not there are ways in which they can be modified -- that the facilities could be modified if, in fact, this technology was not the one which the State thought was most appropriate to move forward with.

SENATOR DALTON: The bottom line is, you don't know. That's part of the equation here. That's what I'm saying. We're going to try to do something responsible. One of the key components is, on a responsible basis, we have to look at those facilities that are already built.

MR. STUART: It's not finally permanent.

SENATOR DALTON: You have some facilities where they have been under construction for several months now. What do you do there? What is the obligation of the county? What is the impact upon the taxpayers of that county? By walking away

from that contract-- Can you walk away from that contract? So, what I would suggest to everyone that wants to play a role in this, is, certainly you're encouraging us to look at alternative technologies, but also we have to take a look, in order to be responsible, at this other component out here where counties have already signed contracts, and the impact upon the taxpayers of those counties.

MR. STUART: We agree. We would rather have a little as opposed to have time to figure out those issues at that time, as opposed to a year from now having that multiply by two, because people will probably be signing more, is the point that I would make.

I agree. There are other issues.

SENATOR DALTON: Yes. All right, thank you. Next, League of Women Voters.

B A R B A R A T R O U T: Good afternoon. I'm Barbara Trout. I'm a member of the Board of The League of Women Voters of New Jersey. And in Judy's stead, I'm going to read our testimony.

The League of Women Voters of New Jersey is a nonpartisan citizen education organization. It represents over 5000 members in 80 local Leagues across the State. The League takes action on issues after thorough study and member agreement on positions.

The League has studied and reached a position on solid waste management in New Jersey. The League believes that strategies for managing our municipal solid waste stream should be implemented in the following order: 1) source reduction, 2) recycling, 3) waste to energy, and 4) landfill. It follows from this, that no incinerator should be sized so large that the incentive to reduce waste or to increase recycling is lost. It may be wise to increase recycling goals from 25% to 35% or 40%, so that number will be subtracted from the waste stream in sizing the incinerator.

The League also believes that regional approaches to solid waste management, such as interdistrict agreements, should be encouraged. DEP can be the lead agency to foster interdistrict agreements, helping to negotiate between counties. However, the DEP should not force the counties by limiting each to either an incinerator or a landfill. Such an inflexible provision may bring great difficulties in the future to some counties.

In encouraging interdistrict agreements, the League cautions against too large an incinerator for the sake of cooperation between counties. An incinerator that is oversized may create traffic problems for the host community. In addition, if a shutdown occurs at the incinerator, the problem may be more severe with the increase in size.

The ability of the DEP to do a needs assessment for incinerators is already embodied in the Solid Waste Management Act. DEP has the right to review the county plans. It can reject an incinerator that is too large. In addition, DEP reviews all permitting procedures including the environmental and health impact statements. If these are lacking, the DEP should make sure they are reviewed. The problem is more in enforcement of the requirements than in the need for new regulations.

Certainly, batteries, tires, and other contributors to air pollution and toxic ash should be removed before the waste is burned. However, amending the Mandatory Recycling Act to include these materials will not guarantee that they will be separated out. The Mandatory Recycling Act exempts from separation any materials that have no market for recycling. Therefore, if a market for material such as batteries does not exist, they will go to the incinerator. A better way to keep these sources of pollution from the waste stream would be to place a deposit on them. Deposits have worked on items in

other states. For instance, the only meaningful separation of plastic soda bottles occurs in states which place a deposit on them.

We hope this Committee will carefully examine the criteria and options as it considers the reforms necessary to ensure reasonable and efficient solid waste management in New Jersey. Thank you.

SENATOR D'AMICO: I just appreciate hearing what you had to say in your last -- next to the last paragraph, because I agree completely. Of course, we're not going to get some of these materials like plastic soda bottles out of the waste stream unless we create an incentive, and in doing so, create a market and mechanism for disposing of them in a more effective way than they are now. We appreciate your support on that point.

SENATOR COSTA: Also, regarding the smaller incinerators, this is a good point, because if you have everything going to incinerators, you won't have a need for recycling in other directions.

MS. TROUT: We continue to work within the League, within the waste reduction first. And recycling-- Communities are showing considerable effort in recycling, but we have a long way to go in waste reduction. We are not here to say there should not be incinerators. We think there needs to be.

SENATOR DALTON: Thank you.

Next, Scott Laidlaw, and Bob Joyce, with American Ref-Fuel.

**S C O T T L A I D L A W:** Good afternoon, Mr. Chairman. My name is Scott Laidlaw, American Ref-Fuel. However, today, I'm representing the Institute of Resource Recovery, which is an affiliate of NSWM Association, which is composed of waste services firms specializing in recovering energy and materials from trash, while reducing its volume through combustion. Member companies include American Energy Corporation, American

Ref-Fuel Company, Blount Energy Resource Corporation, Combustion Engineering Resource Recovery Services, Ogden Martin Systems, Inc., and Westinghouse.

Today I have with me Bob Joyce, and Matt Root from Ogden Martin.

The 16 suggestions for Statewide Solid Waste Management Association are designed to control the environmentally economic impact, and can be grouped, at least in my estimation, in the following types of categories: They dealt with regionalization, sizing -- including recycling issues, air quality, and, finally, plant operation.

In terms of the first overall category of regionalization, one of the questions dealt specifically with opposing a cap on the number of permit facilities in the State. As a general concept in response to that, the regional solid waste planning process makes sense. However, instead of imposing a cap on the number of resource recovery facilities that may be permitted, or a cap on the amount of tonnage that may be processed in the State, we feel the DEP needs to reemphasize support for the counties in their solid waste planning process.

Additionally, the DEP should facilitate discussions among those counties interested in pursuing a regional concept. Without such support, the regionalization concept will remain just that -- a concept.

The DEP in the extreme case could use its considerable powers to resolve siting disputes, host fee disputes, and other tough issues related to the solid waste disposal crisis, or they could step in and direct the actions of counties that are delinquent by suggesting a course of action.

A second question that was posed as one of the suggestions was a prohibition from issuing permits for a recovery facility and an ash residue landfill in the same county. We feel that you should-- We would not recommend that

you preclude those counties, which have had both the political resolve and geography, from integrating a completely in-county solution. That type of an approach might make sense in terms of the northeast part of the State, before you have concerns about siting, and land availability. But, overall, if a county does have the political resolve from implementing a solution within its boundaries, it should not be precluded from doing that.

Another suggestion that was pursued in the 16 questions was a single county versus a regional resource recovery or incinerator concept. The process of building an incinerator in New Jersey is already a complex and detailed process. It involves a lot of discussions concerning financing and permitting, and it also involves dealing with local and State government officials and regulatory entities. To involve additional counties in that process on a regional facility without the direct support of the DEP to resolve roadblocks, would make an already difficult process impossible.

A further concept under the regionalization area-- One of the questions or suggestions dealt with the establishment of solid waste disposal regions by the DEP, to those counties within that region to select a facility, not one or two within that county, but a facility out of the present integrated solid waste management process. Our thoughts there are having a DEP established in that solid waste disposal region is very heavy-handed. That approach would penalize those counties that have been proactive, that have made the tough decisions and are well along in the procurement phases.

The secondary, general area, how I grouped some of the discussions, was under the concept of sizing, including recycling. One of the suggestions that was posed was that the DEP should develop a facility sizing methodology to be used statewide. In terms of a response, although the art of resource recovery facility or incinerator sizing is not

precise, it is based on sound engineering judgments which take into account population growth projections, solid waste growth projections, and recycling efforts.

To be a little more specific, on page four of the testimony, it also looks at past studies, and weighing studies, records from landfills, solid waste disposal information. Also, we can get information voluntarily submitted by the haulers. They are experienced in those matters. We deal with population growth, and I want to emphasize that where the county is today -- and we looked at those projections -- in both recycling, population over time, the solid waste within the county-- We look at increased trash generation rates, demographics of a particular county -- which are different on a county-by-county basis -- mutual interest of neighboring counties, and then we apply typical rule of thumb guidelines that take into account all of that information.

So, one thing I would like to impart to the Committee is, although it's not a precise science of how you size one of these, it's an interactive process that fully involves the DEP, the county, and the vendor. As a further comment on that issue, just to reiterate, the current permitting process does include detailed facilities' sizing information. This is also included in the environmental health statement, which is included up-front as part of the permitting process. All of the information is reviewed by the DEP and the county. Certainly there is input. Therefore, we feel that a needs assessment, or generic sizing methodology, would be completely redundant to information already being generated, and therefore, is not needed.

Another one of the suggestions under the category of sizing at the time was the proposal to downsize five planned resource recovery facilities or incinerators, and to put some kind of front-end in the four-part program. Our feeling there is that a number of non-incineration technologies and processes

will be required to meet the 25% goal, much less any higher goal, like 40%. If the incineration aspect, or part of the four-part program, is contained, then other parts of the State's program will be put under more stress.

We feel that the end result of that type of a process may be less efficient, less effective, and a more costly overall program to the residents in the State. Recycling is very complementary with resource recovery or incineration. It eliminates many products which should not be burned. And our general feeling is the incineration and recycling programs do, in fact, complement, as the IRR. We completely support recycling, and, as an individual IRR, we're very active on those grounds.

In terms of ourselves and the DEP on each of the projects that we have within the State, one additional suggestion was to increase the recycling goals, and include that into the planning and sizing of those incinerators that are not yet under construction. Our feeling there is for those incinerators that have achieved most, or almost all, of their construction permits, that those particular projects, at the option of the county construction, should be allowed to commence on that facility, and should not be stopped to incorporate this increased recycling goal at this point in time.

The reasons for that position-- The rationale is that there is a real and immediate solid waste disposal crisis in this State. Any delay would only exacerbate an already serious crisis, and would subsequently result in increased costs of service being provided to the residents.

Moving onto a generic category of the issues under air quality, one of the suggestions posed was to study the cumulative impact of the proposed incinerators and look at those factors on the environment. Also included in that suggestion is the concept of capping the number of tons of solid waste that could be burned in the State.

In terms of a response, the focus here needs to be to control the amount of emissions, not the number of resource recovery facilities. There are only (indiscernible) planned for the State. This is contrasted with the 13,600 combustion facilities in New Jersey that have air permits -- industrial plants, municipal plants, facility boilers, power generating facilities, and commercial businesses. One of the -- what I thought was -- effective parts of the DEP, was the slide they put up that indicated the relative incremental impact on the environment that these 10 to 20 maxed it out. They were using 20 facilities. They looked at the impact of those decisions on current emissions; if you will, the ambience within the State. I thought that was very effective. We believe that we need to broadly look at all emission sources, not just resource recovery.

Then, once having done that comprehensive study, we shall invest available remedial dollars in controlling those sources of pollutants. And we should target those which have the highest health risk. We should target those which have the largest pollution reduction in the most effective manner. That comprehensive study should be done without a cap on the number of facilities which may be permitted in New Jersey, should be done without a cap on the number of tons of waste which may be burned in the State, and we feel very strongly that resource recovery at this point for the State of New Jersey is very important toward solving the solid waste disposal crisis and should not be impeded.

Another suggestion under the category of air quality was to remove all items in the combustible solid waste stream which could lead to ash residue problems. Our feeling there was we completely agree. We support identifying and removing those items in the solid waste stream which could cause problems before that material enters the plant to be processed, provided that a suitable alternative disposal for those materials is provided.

We've talked earlier about batteries, tires, and some of those other items. But, clearly, if one mandates that those materials must be removed, then, at the same time, we must identify what the alternative disposal for those items would be. Simply stating that they should be removed does not answer the full question.

In identifying the objectionable materials, and taking into account the existing control technologies that the incinerators provide-- When directing those objectionable materials to be removed, anything you burn creates gases and particulate matter. One could look at any particular part of the process, acid cleanup that these facilities have incorporated into it, as well as the particulate removal devices which are particularly engineered to take care of those projects. We need to take particular care deciding which items we want to yank out.

The final category of the suggestions that were posed in the memo -- in the letter -- dealt with option issues. One of the first ones, the suggestion was that there should be an on-site presence of trained State officials at each incinerator. Our response there is that current regulations and permitting requirements are more than adequate today, and already have the following aspects: There's continuous monitoring of the plant's air emissions, and key operating parameters are done on a continuing basis; telemetry is provided to the DEP office in Trenton of that information. There is provision for an office, a space at each plant for visiting State officials, and access to computer information and emissions monitors, so they can see real time operating, what the plant is doing, and how it is performing.

The plant's permit conditions govern key operating parameters and shutdown criteria. There's also a requirement in the permitting for regular written reporting of information to the DEP. We feel that the round-the-clock presence of a

trained State official at each incinerator would be costly and would not benefit the public, unless a chronic pattern of violations is demonstrated.

Additionally, we feel, commensurate with that program, reasonable time should be given, in the event of a permit excursion, so the trained facility operator can find and correct the problem, instead of mandating the closing down of the facility, which could impact on the environment, the burn-out of the waste on the roller grates, and bringing the plant down from an operating level. We feel that a reasonable protocol needs to be established to effectively deal with that, so that the plant can react to an excursion in a timely manner without having an immediate shutdown requirement.

The continuous emissions monitoring being provided by each incinerator will allow the DEP to readily audit whether a permit option ought to take place.

One of the other options under the operations area was that DEP should step in, either through itself or through the help of another entity, to operate those incinerators that are deemed to have been previously operated improperly. In terms of a response, a service agreement between a vendor and the county clearly obligates the vendor to operate the plant in compliance with the facility's permits -- local, State, Federal laws and regulations.

The DEP, the county, staff people, their independent engineer, which is part of the process-- Those entities monitor plant performance and operation and compliance with, again, the permits, local, State, Federal laws and regulations. The penalties in the service agreement between the vendor and the county that deal with the failure of the vendor to honor its performance obligations under the service agreement already have significant impacts in terms of size of the penalties, and variously include ultimate termination,

large financial penalties, and rights for the county to ultimately purchase and operate the plant in the absence of the vendor.

I think it should also be noted in terms of a concern of ours, are these plants going to be operated safely and within the constraints of regulations and the terms of the vendor where the DEP itself is currently involved in issuing a licensing procedure to insure that only trained and qualified people operate those plants within the State? Therefore, a further role on the part of the DEP in terms of assuming, either by themselves or some other entity, the operation of these plants is not recommended. We feel that the permits and the service agreements already provide for those contingencies.

The DEP's role should remain in issuance and enforcement of licenses, permits, and regulations that assure proper design, trained personnel, and waste flow enforcement.

Another is that the DEP looks to the assessment of fines to the vendor. In terms of a response, if the vendor is at fault for improperly operating a facility -- in other words, not operating a facility in accordance with its permits -- then, yes, the vendor should be held responsible to the DEP for penalties and fines associated with that violation.

However, if the exceedence of the plant's permit emission criteria cannot be directly contributed to the fault of the operator, then the associated fines and penalties levied by the DEP should be paid by the ratepayers of the district being provided the service, and the district should step up enforcement of the delivery of acceptable waste.

And the DEP, to explain that position-- It boils down to, if the vendor is at fault for not operating in conformance with the permits, laws, regulations, or whatever, then, yes, he should pay. Again, these plants are simply processing the solid waste that's delivered to them. If some entity within the county put something into the waste stream that we have no

way of controlling or removing because it can't be identified, then, if that material results in an excursion in terms of a permit criteria, then the people receiving the service should pay for that excursion, not the vendor, as long as he's in complete compliance with his permit criteria.

SENATOR DALTON: Does the vendor also have some responsibility as to what's going into the process?

MR. LAIDLAW: Yes, Mr. Chairman, he does, and there's responsibility in the permits that we do spot checks. But in discussing this yesterday, one of the things that occurred to somebody, just as a for instance-- Let's say there is a barrel of some material that if it stayed in the barrel, we could identify it when it hit the tipping floor, or when it got into the pit. Let's say somebody pours that liquid onto the municipal waste on that truck. There's no way I can detect that material as it hits the tipping floor or ends up in the pit. When that material goes through the incinerator, it may result in a permit excursion.

SENATOR DALTON: Don't you check the waste stream as it's going into the burn?

MR. LAIDLAW: On a spot basis, yes; on every truckload, no.

SENATOR DALTON: Why don't you on every truckload? Why then do you object to having someone from the State there on a 24-hour basis? Do you think that is going to be increased?

MR. LAIDLAW: It's a complex issue on how do you police the waste from the flow coming in? For example, at various times during the testimony today, we've discussed Warren. And with respect to that, if you'll pardon me, I'm going to peruse a memo here with respect to the failure of the ash to pass the EP tox test. For six to eight weeks, they had been failing 40% to 50% in terms of the quantity of ash leaving the plant. What happened, though, in reaction to that problem, which clearly was an impact on the vendor and on the county--

That problem had two significant facets: A) the interdistrict agreements allowing for waste flow control, and B), enforcement. I'll deal with waste flow control shortly.

But, in terms of enforcement, the DEP, the county, and the vendor responded by conducting a survey of the waste generators with an emphasis on those most likely to contribute heavy metals. That effort was well publicized, and it was found that printers, platers and smelters and others-- The cadmium level and ash at the Warren plant dropped sharply and has not subsequently increased. The feeling in that particular county was that a single violator is disposing a large amount of cadmium, and that had been the primary metal causing that ash to fail. Recent testing notes here show that seven out of eight that were conducted -- this is about four weeks ago -- passed the EP tox test, and we were informed yesterday that somewhere between the eight to ten tests, one has failed the EP tox test.

In terms of enforcement, we will do that on random sampling, and if we check the truck and find there's a problem, maybe the next five times he comes in-- We can't do everything at the plant. We really need the cooperation of the DEP and the county in order to police the quality of the waste that comes through the plant.

SENATOR DALTON: By the way, I think those last two suggestions-- I have no disagreement with them at all.

When the truck comes into the plant, tell me what happens to the load in that plant.

MR. LAIDLAW: Typically, if we're not doing a spot check on it, the truck would back up to one of the tipping floors and the trash would be deposited into the pit.

SENATOR DALTON: The waste doesn't go out to the floor first and then move into the pit? Why not?

MR. LAIDLAW: That is strictly the volume of the trash here. Now, I'll speak for Ref-Fuel. If you look at the Essex

or Bergen facility, the projected truck traffic there is on the order of several hundreds of vehicles a day, and to physically dump that material onto the tipping floor to have people there sort through it, try to identify those materials, and then have that material deposited into the pit, would be very lengthy and time-consuming, and the efficiency of the overall facility would be severely hampered.

I don't have the exact numbers, but I don't think the plant could meet the test. If you were allowed 10 to 15 minutes to go through a load, it's not certain what you would pick. Batteries are small. It's batteries that are one of the key significant problems. You're not going to pick up something like liquid waste, cadmium, that he just indiscriminately pours over his waste in a dippy Dumpster, and then deposit it. I can't detect that.

What the DEP and the county and the vendor did out in Warren was very significant. They had clearly to resolve, and find where the back acres were coming from, and pursuing that--  
M A T T H E W R O O T: That you do, though, once the garbage is there, is pick-- You mix it around. You don't mix up the full truckload. You mix the waste up to try to make it as homogeneous as possible.

MR. LAIDLAW: The last catch, you have large grapples. The crane operator is preliminarily looking for bulky items -- refrigerators, bicycles, mattresses, sinks, pieces of cars, engine blocks. Those materials do make it into the plant, even though you would think they should be bulky items and go to a different type of disposal than go into the plant. It just takes up energy as it goes through the grates. The crane operator in terms of our facilities-- That's the last line of defense as well.

SENATOR DALTON: You're all responsible?

MR. LAIDLAW: Absolutely.

SENATOR DALTON: It seems to me, then, you cannot say to the public-- But you have to bear the burden of that, if, in fact, something that is incompatible to that plant is burned.

MR. LAIDLAW: I think you have to look at the balance of the service agreement in terms of sharing of risk and revenues. As the vendor, we offer to provide a service, and the risk that we have is if we're in violation of permits or laws or regulations, then the service agreement is specifically structured with heavy penalties on us. But one of the premises we have in our speaking for Ref-Fuel, when we deal with our client communities, ultimately, is, we're processing the waste that you, the county, gives us. We will do everything we can to police ourselves and the waste that comes in. We will be diligent in that effort.

Ultimately it's your waste that we're processing. If we're in violation of performance of a service requirement, then absolutely we should be held culpable for that. If we've done everything we can, and there's still a problem, and it can't be attributable to us, then the person--

SENATOR DALTON: I do this with electric generating facilities, have this argument, this same debate. I've been having this debate since '82. We can spend a lot of time on this. A lot of people here have heard the debate.

MR. LAIDLAW: I was trying to impart our perspective on the issue.

B O B J O Y C E: The spot checking and not doing it with every truck-- For instance, in Internal Revenue they have the audits of everybody's tax returns. It's the fear of who they might catch that keeps me honest. I think that's the same thing we're talking about here. We have that fear. We do have that fear with respect to the hauler delivering waste to the facility, that may be checked. They will be checked. If they are found out to be bad apples, they will be stopped again and again and again.

MR. LAIDLAW: If I may add one other comment: In some of the service agreements, not all, the structure of the agreement is-- In the case where it simply isn't known, and there's that gray area, maybe you should have caught it. Some of the agreements, not all, do deal with a sharing of the risk between the county and the vendor. It's not an absolute, in terms of philosophy, as we approach these. That's what I've tried to impart.

One of the other suggestions dealt with the concept of having the DEP purchase a backup landfill capacity. Again, the requirement to provide adequate landfill capacity for ash, bypass, and non-perceptibles is already dealt with in the county, and the permit they have with the DEP has to be part of your program in terms of identifying your entire handling of the solid waste disposal issue for your client. And, therefore, we feel the DEP going out-of-state, establishing this type of backup, is redundant for the State.

SENATOR DALTON: I'm basically holding my comments because of a time constraint. My silence doesn't mean agreement.

MR. LAIDLAW: One other suggestion dealt with-- Under New Jersey law, incinerators are already regarded as public utilities. The McEnroe process provides two basic options: A) you can elect either a rate base, rate of return approach, or a one-time review and approval by the DEP, BPU, and the Public Advocate of the service agreement and related contracts. If the intent of that question or suggestion is to eliminate that alternative, then such a result would hinder the further development of the incinerator facility in the State, and the potential list of qualified vendors willing to participate in that process would be reduced.

Our next to the last suggestion is a long-term county contract with an out-of-state incinerator. Our feeling there, as a general principle, is that New Jersey self-sufficiency by

1992 is very commendable. However, a county should not be precluded from entering into a long-term contractual relationship with an out-of-state incinerator, if that business arrangement makes the most sense when contrasted with other alternatives.

With that particular county, after it has analyzed all of its programs, subsequently as part of the suggestion, the subsequent in-county siting of the landfill should not be stipulated if this other alternative is elected.

We feel here -- if I may just dovetail here -- the concept of regional landfill, which we heard earlier today a couple of different times, has been attempted. We feel that it does make sense in terms of an approach for the State.

The final-- If you will, I've saved the best till last, at least from our perspective. The final suggestion dealt with rate averaging and DEP or BPU flow control of spot waste. I'd like to first deal with the concept of rate averaging, and then flow control.

The issue of rate averaging is very complex. In their prioritization on a county-by-county basis, there are differences in timing, facility's size, regionalization, and locations of disposal. Those differences create different economic conclusions for each and every county. There are differences in waste stream at different times of the year on a county-by-county basis; there are differences in service agreements providing for the sharing of risk and generated revenues; and finally, there are certainly political differences between each of the counties.

Given all of those differences-- It's hard to envision a fair regional rate for the county itself, without having one county subsidizing the other. Therefore, the IRR believes that rate averaging should not be posed.

The question of the flow control of spot waste, currently, and this is, if you will, an issue that's very

important to us-- Currently, flows only take place within the State, within the structure of an interdistrict agreement. It is a time-consuming process. It is political, and it cannot react to the immediate needs of a plan for spot waste. That spot tonnage is not just to the benefit of the vendor, which, if you listened to earlier testimony today, seemed to be the concept that was being evidenced-- That spot tonnage is needed to meet the county's minimal obligation in terms of its quarter paid tonnage, and to allow for the full utilization of the cost to the county, thus reducing the cost of service to the residents of the county.

The current process needs to be modified to allow those flows to occur, instead of having both the BPU and DEP involved in daily checks on the incinerator. Consistent with their agreements, and within the structure of modified interdistrict approaches, they should be responsible for mitigating such shortfalls, providing that the statewide flow control organization is followed.

Earlier, representatives from the BPU tried to give the waste flow prioritization that we feel makes sense for the State and is evidenced in the Essex contract. What I'd like to do is quickly run through that. I'd like to just describe that to you. And let me also state that, as an industry, we do not want to focus on the issue of out-of-state waste as being the priority source of waste for these incinerators. That is not our intent. Ideally, we would like to have all waste come from within that county.

Again, within the context of the service agreement, these are very complex contracts and agreements. They have financial underpinnings. The financial industry requires-- At the end of the day when you look at the contracts, they say, "Do the contracts support the bonds? Is there always a flow of revenues to support the bondholders?" And, obviously, the financing aspect of these incinerators are an extremely important part of the whole program.

So, in terms of providing assurance to the financial industry, we have to identify where the flow of waste could come from, and you get into a tiered approach, and it's always the "what if." What if that doesn't work? Where do you go next?" You develop a tiered, systematic approach. And ideally the focus of the industry is, we want all the waste to be handled within the county. It's a less politically hot source of controversy if we're able to process everything within the county.

In terms of prioritization, all municipal waste in that county's resource recovery plant, incinerator-- All waste within the county has first haul on the capability of that plant. After all that county's municipal waste has been processed, and if additional waste is needed, either a short haul for that week or that month or that period of time, or to keep the plant full in order to maximize revenues and, therefore, reduce the cost of service to the ratepayers-- If additional waste is still needed, resulting from the scheduled haul, or unscheduled outages of a neighboring county's incinerator--

We feel that if another county has gone to the effort of siting one of these-- It is not because we are in love with other incinerators, it's just that we feel if another county has gone to that extent, they should have a priority in terms of their waste that maybe bypass is getting to the plant. Even after that, if additional waste is still needed, then municipal solid waste from other counties from within the State will be-- An attempt will be made to approach those counties through this revised interdistrict agreement and process, and we'll process that tonnage.

And then, and only then, after you've gone throughout the State and exhausted yourself and still the plant needs waste -- this is the "what if" scenario-- Having satisfied the above constraints, then the vendor/operator shall have the right to bring in other waste.

Again, the reason you need that final escape clause is to provide guarantees and assurances to the financial community that the service agreement and the revenues and the support of the bonds are there.

SENATOR DALTON: I wasn't even going to question you, but you really piqued my curiosity. I want to address that.

My question with regard to the Board of Public Utilities dealt with the whole contract. My concern was fairness to Essex County residents for out-of-state waste being brought in and being charged a lesser rate, compared to the rate that they are paying.

MR. LAIDLAW: To answer that one, Mr. Chairman, again, we have to split that into components. How you deal with that question it is complex. If you're talking about spot waste, this is the waste where the plant operator/manager is sitting there on a Wednesday or Thursday, and walks out and looks at the refuse bunker going to be light this week: "I need my fuel over the weekend. I've got to have fuel for Monday. I've got to make it through Monday. My fuel is the trash."

So, he identifies a need: "Today, I need an extra 500 tons." That's spot waste. That waste-- Simply, a call would go out. We have to relax the current structure, the interdistrict concept. Conceptually, that would flow to the plant. They would pay the posted gate fee.

In the short term, let's look for the next 10 years, we feel there will be a market for spot waste, and that a premium will be paid in order to bring that waste into the plant. But, at some point, let's say we develop these 10 to 20 incinerators. At some point you could develop a rational argument that waste will become a commodity. Again, what's your focus?

Your focus is to maximize the utilization of that plant, thereby reducing the net cost of service to the residents, even if you end up having to bring in waste. We're

not proposing this. This is a "what if" scenario. If you end up bringing in waste for a little bit less than the ratepayers in the county are paying, you have to look at what the ratepayers have been guaranteed in a 20-year contract, fixed escalation. There's a sharing of risk and revenues already identified in the service agreement. It's a different contractual relationship than the guy who says, "I'd like to dump there." And I say, "Nope." He has no guaranteed disposal and no guaranteed supplying. He will charge what the market will bear, if he's from out of the county. If he's from within the county, I understand your point.

If it's one of these other alternatives, market pricing will govern that. It's a difference in the class of service provided. The spot market does not have guaranteed pricing. The ratepayer of Essex County does. So, if by bringing in that guy for a little less money than the ratepayer for that day, you are processing the funds, you are getting tip fees, and you're getting the energy.

SENATOR DALTON: The parameters of your scenario are the spot market. The concern of this Committee is long-term impact. Additionally, there is a general philosophy that is, I think, illustrated by your answer of feeding this incinerator. The general philosophy of this Committee is concerning itself with the consumer, the taxpayer. What we're concerned about is you're sacrificing a lot of other things, such as recycling. You may be sacrificing incinerator technologies. You do that all because of the fact, at the outset, you made the decision that you have to feed this incinerator.

And that's a concern, when you answer the question about downsizing, and there's a reluctance there that only exacerbates my concern.

MR. LAIDLAW: To put that all in context, with respect to downsizing the plants, what we're proposing, because the crisis is here, immediate, and has to be dealt with for those

plants who have gotten permits or are in construction, or substantially on the way in the process, is that those plants be allowed to proceed.

SENATOR DALTON: See, it's the Commissioners, too. I hate to keep going over this. You love to talk about this crisis. You say, "We will solve this crisis." If it hits tomorrow, resource recovery will not solve it.

MR. LAIDLAW: That's correct.

SENATOR DALTON: If it hits next year, resource recovery will not solve it. What's going to be on-line?

MR. LAIDLAW: Essex.

SENATOR D'AMICO: How many facilities were you referring to when you listed those that are in the permitting process that you want to proceed?

SENATOR DALTON: It's all guesswork. You don't know when the crisis is going to hit, so don't tell me what the solution is, okay?

MR. JOYCE: The Legislature apparently thought it was a few years ago, when they enacted the Solid Waste Management Act.

SENATOR DALTON: That was changes in the process of how we planned for solid waste in 1977. It seems to me, whether we use crisis, and we use it in the way that most benefits us, we have to rush to a technology because of an impending crisis. All I'm saying is, no one can tell us when the crisis is going to occur, okay? And no one can tell us what technologies will be available at the time it does occur.

MR. LAIDLAW: In terms of answering that--

SENATOR DALTON: All you're telling me-- We've invested a whole lot of money in your technology, okay? That's what you're saying. Don't justify moving ahead, okay, because there's a looming crisis out there, in just one technology. That's my point.

MR. LAIDLAW: The crisis, Mr. Chairman, is not as a result of incineration.

SENATOR DALTON: I'm not suggesting it is. The crisis will occur when Pennsylvania and Ohio boot us out. That's when the crisis will occur, okay, and that can happen any time from tomorrow, ad infinitum, out anywhere along the line. At any point along that time frame, you may, indeed, or may not, know your industry, or another technology may not be ready to handle that crisis.

MR. LAIDLAW: Except, I understand where you're going, and that's certainly one of the issues before the Committee: What's your guesstimation of when that event is going to occur? Therefore, do you go back and look at those plants that are somewhere in that process, and maybe even started construction, and do you halt and ask them to downsize?

SENATOR DALTON: That is a question that this Committee is going to answer.

MR. LAIDLAW: I understand that, and what we're saying is that the process is very detailed and involved. For example, in the Essex plant, it took five years from the start of the process to the time that we initiated -- about four years before they initiated construction, and construction is about halfway through. The plant will be on-stream the summer of next year, and what we're concerned about is that you have these various plans that are in the pipeline and you stop, go back, reopen certain considerations, and that adds an element of delay.

Our concern is for the residents of those counties. That ultimately is an increased cost.

SENATOR DALTON: We don't know that, okay? Let's take Essex. If, in fact, we can determine we can recycle, go up to 40% -- hypothetically, okay? -- it seems to me, that's not in your best interest, because you will have less material to go into that plant.

MR. LAIDLAW: What happens there, in that particular instance, the service agreement provides a remedy. If the

plant-- At that point in time, if the Legislature chooses to enact a law, whatever, that says these plants readdressed or automatically recycled 40%-- By simply restating a goal, you're not--

SENATOR DALTON: What is the incentive for Essex to handle 40%? Now, the plan is, in theory, going to get "X," less 20%, because of recycling, okay. What is the incentive to recycle?

MR. LAIDLAW: At that point in time, it's not certain to me-- Again, a question mark. Using your analogy that, in fact, the flow of the waste to the plant would be 20% less-- Again, we're dealing with projected growth rates -- projected waste generation rates.

SENATOR DALTON: Whatever it is, what is the incentive then to pull waste out of the waste stream?

MR. LAIDLAW: At that point in time, okay, that would be considered a change in law. Okay, because something has happened after construction of the plant has occurred. The parties would have to sit down and look at that. If the plant were downsized because of that event, then, ultimately, the cost of service that facility would provide to the residents would go up, because you're looking at it on, like, a scaling efficiency.

SENATOR DALTON: I agree with what you just said. There is no incentive. There is no incentive. That's my point. We're sacrificing recycling at the altar of incineration, period.

MR. ROOT: You're making one basic assumption, which is that the incinerator will be oversized or exactly at capacity. A lot of the facilities are already overcapacity. You're assuming a problem which is not necessarily there. We've had facilities open, such as Tulsa, Oklahoma, and the first day they opened, they contracted to expand the plant by 50%. They have so much garbage. A lot of waste that comes into that plant goes elsewhere.

What I'm saying is that it works both ways. And you're not looking at the other side of the issue as well.

SENATOR D'AMICO: I take it from that, and in making this statement I key in to some extent to a comment that's on page 13 of your statement where you say resource recovery and recycling work together, because recycling can eliminate 20% to 25% of the district's waste, including many BPCs, scrap iron, batteries, and other metals, which should not be burned-- I take it that you would not be concerned, then, if this Legislature were to start actually going down a checklist of materials, such as the ones listed in your statement, such as plastic beverage containers, maybe things like corrugated cardboard that are recyclable and not--

If this Legislature were to say: A) that none of those materials would be allowed to be incinerated, and B), you know, as an aid to creating the markets where there is some weakness that we'll impose a deposit system, or enact other programs to encourage recycling and other methods, your projections, your plans, your plants would not be jeopardized. Is that what you're saying?

MR. ROOT: Typically, when you pull out metals and plastics, the BTU value, the fuel content of the garbage tends to increase. Metal absorbs heat, and generates less steam. It has a positive impact on the generation of the plant, how much you get out, and how you get to a certain level, which is-- And it might have some impact on the plants, but that will have to be determined.

SENATOR D'AMICO: You would not object, I take it, for example, to a deposit system on plastic beverage containers?

SENATOR DALTON: How did I know you were going to ask that question?

SENATOR D'AMICO: Or the removal from the waste stream of plastic food containers, a prohibition against a package?

MR. ROOT: We have bottle bills.

SENATOR D'AMICO: So the answer is, you wouldn't be opposed to such legislation, or at least you're able to operate in an atmosphere in a state or in a context in which those materials are not available for--

MR. ROOT: At Ogden we do operate in New York State, which has a bottle bill.

SENATOR D'AMICO: My question has to do with the impact. What would the impact of measures of that type be on the facilities that you mentioned, or had in mind, when you said that certain facilities that have often gotten permits, that are well underway in the process, should be permitted to proceed?

MR. LAIDLAW: The complete comment was that upon that type of an event, subject to the county, I believe the county should be given an opportunity to review what the impacts are, and then make the decision, "Do you at that point stop, or do you proceed?" I don't think it should be mandated. I don't want to put our clients-- And, again, you have to understand, we're the vendor, and we're working with these counties as our clients. We don't want to put them into the position, or submit testimony, or offer positions that constrain their degrees of flexibility in terms of your question.

SENATOR D'AMICO: Are you in support of a deposit on bottles?

MR. LAIDLAW: No, I'm not going to say we're in support of it. I believe, at that point in time, the operation of the plant can certainly adjust to that.

In terms of the Chairman's concern, what's the incentive at that point in time; let's give the for instance of Essex proceeds in operation, and 40% is mandated. At that point in time, you have to look at contractual requirements. You go to the service agreement, and look at what the remedies are. If that means that you can put into place more inter-district agreements for that county, that has exactly the

right fit, 500, 600, whatever the tonnage is the result of that, that county may then end up shipping its weight on a short term -- long-term, whatever time period it takes to get that waste into the plant.

Failing that, you go to bypass for the other nearby incinerators, other counties within the State. And the service agreement is flexible enough to deal with those eventualities.

SENATOR DALTON: It's flexible, as long as we don't build more and more plants, because why should I send my waste to you, when I already have my own plant?

MR. LAIDLAW: I was only saying that, in the event of a bypass, scheduled or unscheduled shutdown, we would never propose that a portion of another county's waste be segregated and shipped to another incinerator, when there's an incinerator in that county.

SENATOR DALTON: My point is, if we continue down this road to rush to resource recovery, we may be in just that situation -- if we don't think about it a little bit.

MR. LAIDLAW: As the IRR--

SENATOR DALTON: Allow each county to go their separate ways.

MR. LAIDLAW: I believe guidance is needed. We appreciate the opportunity to provide testimony in terms of the extremely broad scope of issues that were raised in your 16 points. And if, in fact, 40% recycling became the focus of New Jersey's program, we're completely supportive of that. We feel that recycling and incineration are compatible. There are things that recycling does for us that we're appreciative of. We're particularly concerned about batteries, and any items that result in emissions impact either on the air or ash site. And if recycling can help us identify those materials, that's what we're looking for.

SENATOR DALTON: I'm ready to move on. We are really backed up.

MR. LAIDLAW: That's the extent of my testimony.

SENATOR DALTON: I appreciate you going down each question and answering that, too. That was awfully nice, and I appreciate that.

M I C H A E L G O R D O N, E S Q.: I'd like to take a little time to make a short statement. My law firm has been involved with at least 11 counties in the struggle for solid waste facilities in New Jersey. And we are currently representing the Borough of Ridgefield, which is the proposed host municipality in Bergen County. We represented the Ironbound Committee against Toxic Waste which opposes the Essex County incinerator.

I'd like to focus on Bergen and Essex facilities, and the Chairman's concern, "Can we go back? Can we stop? Can we slow down?" Bergen and Essex are being built by a company, American Ref-Fuel. Fifty percent is Browning-Ferris Industries. Browning-Ferris Industries has been found guilty and pled guilty to numerous antitrust violations.

Under the Solid Waste Disclosure Law, NJSA 13:1E-126, known as A-901, it's been our feeling, and we have brought this issue to the courts, that the company is prohibited from operating in the State of New Jersey. The language is clear in the statute that violations of this specific nature prohibit facilities being built by these companies. The court has said that since DEP has granted temporary permits without acting on the ability of these companies to engage in business in New Jersey, construction can begin under the A-901 provision. We are talking about approximately \$750 million to this company.

The Attorney General and DEP, under the law created by the Legislature, have the obligation to rule on the fitness of this company. American Ref-Fuel submitted its completed application in April of 1986; therefore, the completed material

has been submitted to the State -- the executive branch of this State -- for over three years, and we don't have a decision on whether this company can legally operate in the State of New Jersey.

I tell you from my reading -- and I can't tell you it's a fair reading, because I'm involved in the litigation -- the company cannot legally operate in the State of New Jersey. If the statute is not amended, there will eventually be a point when this company will be denied the opportunity to operate in this State. There is a SCI report that came out, and the lack of enforcement of this bill, A-901--

SENATOR DALTON: We have a copy of that report.

MR. GORDON: The Essex County project was originally proposed, and I'm trying-- After the sickening testimony of the Department of Environmental Protection this morning, when the Chairman leaned over to the Commissioner and said, "If I get you the authority that I feel you may need, additional authority to solve these problems, will that help you?" The Commissioner of the DEP said, "I don't want that authority." That sickens me.

There is no credibility in this State when it comes to actions by the Department of Environmental Protection. Why? They don't believe in what they are doing. If they don't believe, how are the citizens of the State going to believe what they are doing?

When they proposed the project, building a garbage incinerator without locating or cost factors being considered in -- an ash landfill or ash disposal -- we pointed out that to have an ash landfill you need a regular landfill, and perhaps a hazardous waste landfill. They had no bypass landfill, which they still don't have. They have proposed an incomplete project. An incinerator without accompanying landfills is not an option for solid waste disposal. This began in 1979 with Essex County.

It came to a head in a formal project in 1983. In 1983, if the Department of Environmental Protection did its job, there wouldn't be the so-called crisis that exists. Because, if DEP said -- which I firmly believe -- the fundamental portion of any strategy is the identification, first, of a landfill, which gives you the ability to be creative, to implement whatever comes, as far as recycling, as far as alternative strategies-- If they threw that back in the face of American Ref-Fuel, we wouldn't be paying \$125, \$140 a ton for the transfer stations in Essex County.

Let me just digress for a minute, because we also heard what I felt was disturbing testimony by the BPU. The DEP failure to force that as a component for the solid waste disposal strategy brought us to the position where, in 1987, Essex County declared a state of emergency when the Meadowlands closed, and they went out on the market privately, without going to bid, and gave transfer station contracts to Waste Management, Inc., another company that has failed to get A-901 approval in New Jersey, and a company called Mariel (phonetic spelling) Disposal.

The value of those contracts annually I estimate at somewhere around \$75 million a year. In 1987, at a hearing before the BPU, I was employed by the City of Newark. I asked the Solid Waste, how did you-- They said, "I called a town in Long Island. It was less than they were paying, so I knew I was getting a good deal," and he signed the contract.

SENATOR DALTON: Was the town Crazy Eddie's municipality?

MR. GORDON: The BPU is still overseeing the attempt to oversee the actual cost that Waste Management and Mariel have in building. Waste Management took the position they were beyond the jurisdiction of the BPU. That case has been going on for two years. I'm telling you, as we sit here now, the ratepayers have been ripped off for two years. It is my honest, strong feeling that they have.

Essex County is a model of disaster. But I honestly am trying to take very seriously your term of, "Where do you go from here?" I don't think you can say, "Where do we go from here?" I was employed by the DEP. I think the DEP has a herculean task, but they have failed from the top down. There has been no management at DEP in the years that I've been practicing law in the State of New Jersey. I have seen their credibility go to where they are the laughingstock of the State government.

In 1982, when I started doing waste work for individual towns and for community groups and environmental groups, New York and Pennsylvania were disposing at will in New Jersey for \$4 to \$7 a ton. If we look now, it's 1989, and we are disposing of all of our waste to New York and Pennsylvania at \$125 a ton. If DEP can be characterized as your trade agency, our balance of payments, they are going to bankrupt the entire State of New Jersey, if we don't look inside the DEP.

I'm torn. I don't know what the best way to look inside the DEP is. On the way down here I was thinking, it might be time for a special prosecutor, someone of the stature of Judge Stern, because-- I don't say that there is corruption in the traditional sense of payoffs, but what I do say is, I know there's a bankruptcy of leadership. I know there's been a failure, and there's going to be a bankruptcy of this economy.

If DEP had its way, close to \$3 billion, and you've heard today some very disturbing information-- Essex County alone--

SENATOR DALTON: I didn't hear anything that surprised me.

MR. GORDON: I can tell. You were right on the mark. From the Essex and Bergen facilities, they are situated right outside New York City, the Holland Tunnel, and the George Washington Bridge. I heard today that we're going to be accepting New York City's waste and subsidizing the cost of

disposal for the benefit of a company that doesn't even have the ability to do business in the State of New Jersey. I'm disturbed by that. I hope you're disturbed by that, and I want to get some answers.

I really think that someone has failed. I tell you that I just keep coming back-- It was the DEP's job. They have more than enough authority to solve the problems -- to investigate the problems. We are building in Essex and Bergen \$750 million worth of incinerators. There has never been an opportunity to take sworn testimony in the entire process of building those incinerators. The process, which is a give and take between the vendor and DEP, is all done on reports. There is never an opportunity to sit somebody down who is an engineer or even to have the kind of probing cross-examination that you just had of the previous witness. That never takes place in the public eye.

There is no cross-examination at any point prior to the construction of any solid waste disposal facility in the State of New Jersey. I find that very disturbing. What I also find disturbing is that the DEP has purposefully eliminated the true need and use of the environmental impact statement, an environmental impact statement which is required by statute and should be the document where all of the available alternatives are weighed as to environmental impact, cost, and time of implementation. And that doesn't happen in this State, because DEP has reached the brilliant conclusion that once you pick a site, and once you pick a technology, your environmental impact statement is mere lip service.

They've gone so far as to say, as a matter of fact, "Once you picked what you feel may be the best site, you don't have to look at any other sites." They have articulated that position to the courts. The courts have said, "If that's the way you interpret the environmental impact statement--"

Getting back to the exception, I'll go through the list of the counties that I'm working with.

I will tell you by the end, you're at an appropriate time to make a significant difference. I will urge you to work. I will offer my support and the support of the constituents that I work with. We will get you whatever information you want. There are many counties which are at that critical point. In Ocean County, the Freeholders were convinced they didn't want to go forward. Don Deieso, the hatchet man, visited that county. And I don't want to use the term "intimidated," but said, "You lost your own prerogative. You will go forward with the incinerator." The Board of Freeholders said, "We have our own concerns financially and environmentally." DEP bullied them into going ahead. And yet, you turned to Commissioner Daggett, and he said, "I don't want the power." Then stay out of Ocean County, and let them make up their own minds. They know a lot better than what DEP does, at least what they have been given.

Essex County got its permit in 1985. The emission levels -- and we heard from the incinerator industry, their concern about operation-- The emission levels permitted in that facility we challenged in court as not being the lowest achievable, and that's what was required for Essex County.

Newark is a non-attainment area. That means there's a serious pollution situation in the area where the incinerator is being built. We sued in 1985, saying, "Facilities around the country are already being permitted at a lower level than you're permitting this facility," and they fought us for two years in the court, and they won. What did they win? They won the right to keep levels 33% higher than they are now permitting facilities in New Jersey.

The first largest incinerator, Essex, has a particulate emission 33% higher than the Passaic level. That permit just came out last month -- something for DEP to be truly proud of, that they ever-knowingly allow massive amounts of pollution to go out into our environment, because they took

the side of the vendor without any reason. And they have failed to call in that permit while construction is going on to make sure that the vendor incorporates those modifications. I find that truly disturbing.

The other situation with Essex, and I have to call this a lie by Assistant Commissioner Deieso-- He said, "We acquire emission offset credits." They didn't require them prior to 1985, and that seems to be a violation of the Federal Clean Air Act. As a matter of fact, there's no emission offset credit plan and no emission offset credits have been purchased. We don't know what the costs of those credits going to be. How do we know the costs of these facilities?

The big issue is going to be, I predict, when we get to the point where Essex wants to open up, they are not going to buy the emission offset credits, but ask for a waiver. And we're going to get into the waiver of another law. We're going to have excess emissions, no offset credits, a company that, based on its past convictions of antitrust behavior, shouldn't be operating in the State of New Jersey. We're going to have garbage at a subsidized rate by the citizens of Essex County streaming through the Holland Tunnel. "Oh, it's Thursday. I've got a long weekend." The chief operator says, "I need 500 tons." I don't think he's going to have a problem getting 500 tons of garbage. That takes away the incentive to recycle. That's what we're going to have in Essex.

The real troubling thing with the incinerator was, they are still going to be operating the transfer station to take all the bypass waste to Ohio, because it's only part of a program. They permitted part of a program. It doesn't even solve the problem. It's a joke. You know what the resource recovery industry is. You know what resource they are recovering. They are recovering dollars. That's all they are about. They've taken Essex County to the cleaners. Neither the BPU nor the DEP had the guts to-- Even though it's

difficult, and even though people have been opposing the siting of facilities in their area, that opposition doesn't come out of the air. It came out of the past failures and lies in-- And the oily landfills did leak. People got upset, and got very skeptical.

I think the people are right, not DEP. Based on their track record, I couldn't tell anybody to take on a facility in their neighborhood. DEP has screwed up. That's where we sit in Essex County. That's just one example of one county.

I'm going to go on to why I think it's important that you finish your work, and take it very seriously. As to a lot of facilities, you can make a real difference. Atlantic County-- I'm working for citizens and businesses in Atlantic County. DEP had a preliminary environmental impact statement. Rodgers, Golden and Halperin, the consultants for the Hazardous Waste Siting Commission, are the consultants for the Utility Authority. They've spent, they say, over \$1 million. They didn't realize the proposed location was too close to the only Class I wildlife, Federally protected area in the State of New Jersey, the Brigantine National Wildlife Project. That's after DEP had it for 14 months, after the consultants selected the site. Suddenly, two years into it, they say it's an illegal site. Why? Because we're trying to protect the only wildlife area in the State.

What's the reaction of DEP? Well, unfortunately, the reaction is going to be they are going to try and bypass the Federal law. And why do I say that? I say that because the landfill component of the Atlantic County project, which was conditionally approved just this week by DEP-- They picked a landfill site adjacent to the incinerator. That may make some sense. But, it's at the end of the Atlantic City Airport runway, where the FAA center is.

The FAA has said, "We have consistently taken the position that it will be dangerous to the airport traffic."

What has DEP said? DEP conditionally approved with the following proposal: The authority has proposed to haul the garbage now to an enclosed building at the landfill, bale it, and bury it at night when no birds are around. It's getting very scary. That is not a credible response to the Federal government saying, "This is a stupid location." It wasn't the first time the Federal government had said that. They had said it almost 10 years ago: "It's not a good location."

Bergen, I indicated-- Besides using the same company which isn't, in my opinion, able to do business in New Jersey, Bergen County-- We are filling 20 acres of wetlands in the Hackensack Meadowlands area to build our incinerator. We're taking, since the utility authority had the power of eminent domain-- They can put it outside the wetlands. They are taking the position that there is no other feasible site in the county.

Frankly, I don't believe in Sussex-- Sussex County decided to give up opposition to a county landfill only. I was very disturbed by Commissioner Deieso, who said, "The only people objecting to it were Sussex." And the reason that Sussex objected to it was, the Township of Lafayette dropped its opposition to the landfill because they were assured it would be a countywide landfill only. Through their research as citizens, to abandon their plans for incineration, Sussex County Freeholders sent a plan amendment down to the DEP. "We want to take out our amendment that says we're going to build an incinerator." They said, "We are deregulated," and the DEP said, "You can't take out your proposed incinerator. Essex and Sussex will never be built."

Ocean County -- I've been working for the Township of Lacey -- is another county that has convinced itself, based on the environmental impacts, that recycling and landfilling are all they need with composting in a timely manner, and that can happen. That would be another incinerator that would never be.

In Middlesex County, I'm working for Sayreville. The consultants who worked for Middlesex County picked the abandoned NL Industry site. They picked a portion of the site that had a landfill on it. The cost of cleaning up the landfill, and the time for cleaning up the landfill were never a factor toward that when they selected that site.

First, the consultant said, "There's no landfill." And when we showed them there was a landfill, but we could put up a fence between the incinerator and the landfill, that proposal created a problem. There's another incinerator that would never be built, and the county would be better off for it. The only other counties that are currently constructing, as far as I know, are Gloucester, Warren, and Essex. They are the three furthest along. The counties like Passaic, Monmouth-- Passaic has no permit.

I haven't worked in Camden or Cape May. I wanted to give the Committee, to the tune of about \$3 billion-- If we would put even 10% of that resource into recycling, I think we'd all be amazed what we could accomplish. We've been recycling on a shoestring.

I'd be happy to answer any questions that anybody on the Committee has.

SENATOR DALTON: What I'd like you to do, Michael, if you could-- My recommendation would be to give some thought as to where we go from here? You aptly describe where we are, and how we got here. Our concern now is absolutely in prospective.

MR. GORDON: My feeling, just briefly, having lived through a lot of landfill problems and trying to get them cleaned up and capped, is I think we agreed to recognize that DEP already has the authority it needs.

For example, to locate and develop a landfill of need for this State, the amount of money we are wasting is just incomprehensible. DEP has the authority to put together its own facility. I think they should do that immediately. I

think they should do that for a number of reasons, just as I described in Essex. You're going to have half a solution in Essex, after hundreds of millions of dollars.

SENATOR DALTON: I don't mean to cut you off. We're going to cut off at 4:30. We've been here a long time. I'd like you, if you would, through Mark, to make some recommendations to us. One of the things is, DEP doing anything is based upon the assumption that they have the will. I think you and I have reached the same conclusion; There is no will there.

MR. GORDON: I don't know why he sits in the Commissioner's chair and says that he has some answers. I suggest he resign, even if it's only six months. We don't need another one of those.

SENATOR DALTON: Thank you.

A L B E R T A. F I O R E: Al Fiore, Hudson County Improvement Authority. I thank you, Mr. Chairman. I know it's been a long day. I found I am a chauvinist. I don't want to lose any more brownie points in my testimony. I'm here representing the County Executive of Hudson, my own Hudson County Improvement Authority.

I've addressed six points. I lead off telling you that we share your concern about the vitality or lack of vitality and prospects for success of the current State Solid Waste Management Plan.

I've heard your views and your questions of some of the prior people who have testified, and I hope I have the ability to answer some of the same questions. Aside from the testimony, very briefly, without reading this into the record -- you have it -- one of the dilemmas that we embrace is with a gun to our head. We have made very serious expenditures and commitments to fulfilling the mandates of designing a complete solid waste resource recovery system in Hudson County, and I

hear nothing -- and I've heard this in both houses of the Legislature -- other than what I suspect is, let's have a chance to look around for alternatives.

And I tell you, frankly, I think that's a very agreeable posture. I am selfishly concerned for my peer group, and I wasn't concerned as to what is going to happen to people in the gap. And without belaboring that, this is a serious concern.

SENATOR DALTON: That is a serious concern. No question about it.

MR. FIORE: I would like to have the time for the possible alternatives to broken contracts. I hear you say, "What are your solutions when the crisis occurs?" I think the crisis was manufactured years ago, and chaos is what reigns today. Too many landfills were unnecessarily closed; several in my county, speaking parochially. I share in an unusual problem. We are the one county that is overlaid by-- We are not peers or competitors. Everybody I deal with in State government, at any level, looks on the HMDC as a sister State agency. They even share a Deputy Attorney General with the DEP. They seem to be above laws that pertain to the rest of the solid waste management districts. And they seem to be an island to themselves. I, frankly, am convinced that they want to get into the entertainment and baseball park business and get out of the waste management business.

Your body, 20 years ago, created them with a very positive three-word phrase that they will handle "garbage in perpetuity." I know my education is limited. From where I come from, I thought that meant forever.

I think what they are heading for now is, they want to get out of the landfilling business, and they would like to be the garbage managers for New Jersey, because they have experience at it. That's not going to satisfy the taxpayers. I don't think we need another layer of brokerage for authority.

My concerns on your questions are the redoing of needs assessment. I think the state of the art at the present time is sufficient to quantify the nature -- the quality and the quantity -- of waste in every solid waste district. We did the obvious. We had a landfill managed by the HMDC, but we weren't certain of the origin of all of the waste, and we paid the consultants rather handsomely for one year to stand there and analyze waste. I think we have a fairly definite solid idea of the native Hudson County waste.

We also knew there was a continual inflow and influx of non-labeled material called "demolition material." The fact of the matter is, there is a place called New York. We'll always have this unbranded merchandise coming in, and we sized our facility for that. And we were aware of the 25% mandate, and we sized the facility accordingly. And even in our contract with our vendor, we agreed on putting a pay basis for even less garbage, so we feel very comfortable.

I don't have any concern, given the locations -- the northeastern locations. If the effort is garbage, we won't suffer for sources. I don't think the problem is needs assessment. It will always get back to one thing that I will say three or four times in all these issues: Lack of sufficient enforcement causes all the problems. You have a law. It is very difficult to apply it. Its strength is focused in two different departments, the Department of Health, and also in the Department of Environmental Protection. The locals are virtually powerless to do anything more than levy fines, as you know, and fines as high as \$2,400,000 are treated by haulers and collected as petty cash -- the cost of doing business.

Unless you reconsider the opportunity to enact legislation that will include very strenuous measures, including confiscation of equipment and putting people out of

position, the haulers and carters are not going to pay attention to your system. You can mold it, fashion it, and you can pay for it. They will ruin your system.

I think we have to keep coming back to that. It should be a pervasive notion in anything you consider. I was disturbed that the SCI took several years to study the industry, and came to the woeful decision, "It's unmanageable, and therefore, we should deregulate it."

My henhouse isn't big enough to let in all those foxes. There has to be a definite way to manage the system and penalize those who won't pay. You all know it's impossible to get competitive bids. There must be a reason for that.

Some of my towns asked their haulers, and any haulers, to bid on recycling pickups. Volume isn't too much there. We deal in a number of pickup days. It's amazing how high those bids are in relation to the total solid waste pickup by the haulers for everybody's garbage, and they are stuck. And I see no ability to help them, other than the county intervening and trying to set up a county system, and find the resources to do this. When we get an option, it will be part of the tipping fee.

I think counties under the mandate really slide into only the rule of planning the losers. One of the alternative measures is more recycling. I heartily agree. I don't go quite off the press with this. I don't think we're dealing in apples and oranges. I don't think we're all talking about the same thing.

I look with pride on my sister city, Newark, doing the best, last year, of 41% recycling. It took me several days to figure out the floor and the argument, and I still think they did the 41%. But it's not the same type of goods you're talking about.

An enormous amount of that first-year collection was an aggressive program to get derelict cars off the street, and

that metal was recycled. That metal was not used as a single item. When they size the plant, they should be encouraged to continue bringing it off.

So, my question is, 40% of what? Your mandated law talks about paper, bottles, and aluminum cans. It's extended to corrugated, and includes now office paper. If you look at our solid waste figures, and we did 100% of the items, we're not doing 25% of the total. I listened for the State Office on Recycling. You have to do better.

In my real world, I must recycle what's not mandated, that which I don't want to burn, and which I don't want to fill my most expensive landfill with -- that's industrial waste and commercial waste. They should sponsor waste exchanges. We should look at a broader market view.

The State requires recycling tonnage reports once a year. Would you believe that most suppliers of these reports who run the markets now want to charge towns for these reports, and there's nothing we can do to them about that? And, by the way, figures once a year-- Six months after that year, they are worthless. I'm leaning on my poor 12 towns to give me monthly figures. That's a lot of work. We have a goal in mind. Perhaps I can elicit enough information on a monthly basis to get an accurate picture of the various items in those, and perhaps we can go directly to major markets. But I feel Hudson alone, or maybe several counties alone, won't be able to do that.

I do believe the State, if they were in possession of monthly figures, might now be able in the Port of Newark, and the Port of Camden, to deal with China directly on paper, and instead of paying to get rid of newspaper, we'd have a market. I don't know the status on that path, and won't be there for years. I'm trying to unilaterally-- But by the rules over the years, you must understand, the original legislation created 21

fiefdoms with another one overlaying all of us, all in competition with each other. It's nice to talk about inter-district. It's nice to talk about regionality.

Under the present system, it's only been the last 12 months that I've been able to get convenient dialogue in the years of the grouping of improvement authorities, really. For other purposes, I think you have a hard road to try to solve this problem, unless you start looking at technique or mandating a role for the people you place the authority in, and if you don't do that, that really gives the towns and the counties leverage to do that, and the type of funding.

There are now \$12.50 of taxes in our landfill. That's an enormous amount of money. I'm afraid most of it is going into overhead for administration and candy grants and brownie point grants. It does not seem to be cohesively focused to where we're making any part of the system work. And if I grudgingly stay, I'll operate for 80% of recycling. You better show me a system that's going to work. Nobody is talking today about doing all recycling. We're 10 years away from where we can do 50% true recycling. I'd like to see you deal with my present realities and those of my peers, while you're trying to define a new technique to make a system work.

And I have one other thing. I just say to you, rate averaging is being fostered in many places. My county has spent a lot of money defending themselves because of the extreme burden that would be placed on the taxpayers. But, if you look at rate averaging, the idea would be that we average the whole State, except there is a failure here. We're not a planet. We're not in isolation. We will always have New York, and we'll be seeking west and south as cheaper.

Just last week I got a call from western California, which in combination with Conrail, and low disposal rate, think that they can now compete with Pennsylvania, in case we're in a global existence and we still cover it. We'll pass laws to

solve our own problems, but you get back to that key word, enforcement. You mandated the enforcement, but forgot to appropriate. DEP has six enforcement inspectors to monitor thousands of haulers, 21 counties, and another favorite topic of mine, transfer stations. As long as you exist, there will be cancer sores through which all of the vile serum flows, if your law does not cover transfer stations which, by their status, can take waste from anywhere, and the minute it touches their county, it becomes their headache.

We in Hudson have tried to-- We're having a little difficulty. We've coined a new term. We've put additional feathers on the duck we know as transfer stations. We call them "waste distribution centers." We really wanted them to play a different role. We're trying to measure the additional costs. We'll have a finite (indiscernible) system, and I won't suffer from the down days and up days that everybody else has to worry about. It's rather unique. Two years after they said yes, now they are having second thoughts. We're going to fight it deliberately, because we need a good businesslike, management system, or we're foolish to be committing these hundreds of dollars to this system.

Our distribution centers would play a role as a funnel and screening mechanism. Municipal waste that comes through our system, that comes through our recycling, would go through them, and maybe one, two, or three, and they would be charged with recycling the last ounce out, potentially at a profit, and also to segregating the losers, because I know the counties are going to have to embrace the losers. Losers occur more frequently than you can imagine. As you do newspaper, it falls apart. As you do this, it falls apart. They still deserve to be recycled, so it's a cost avoidance game. After screening that, delivery on a contract basis of a finite quantity every day to our burning machine--

Now, we live up to the ground rules with sufficient tolerance with our vendor. We have no concerns there, and everybody in the system is being paid to do their role. We are left to figure out where the bypass goes and argue with the State whether we can contract for a million years or two years out-of-state, but at least put together a finite system. All of that New Jersey-- New York and the tunnels and bridges live on my left elbow, and there is enough of a spot market that prior rates exist in the form of transfer stations which can step outside the present law wherever they want. And so, selfishly, we're worried about Hudson County. If you look at the whole State as an aggregate individual, you have to apply something like this, or your animal has so many elbows, you can't make it walk or talk or crawl.

And if that sounds too flamboyant, I would like you to look at the opposite side of the coin of one of the questions that you asked one of the other people. He was a vendor, and too defensive to see your goal. We have no impediment to recycling. The real world says recycling is a question of how much cost is avoided. Garbage costs so much a ton these days. If this situation is not arrested, I think it will follow the path of medical costs. Garbage costs so much a ton, and whether you burn it, ship it, cure it, bake it, resell it, or give it away, it's a cost avoidance game.

I am certain it will always be cheaper to find a market that will either buy or accept it at a price -- recycling material -- than it will be to put it into your own resource recovery system, burn it, landfill it, or do anything else with it. I have-- If we get away with it, and get the remediation done -- what will be known as the world's smallest expensive landfill-- I'm not very proud to be the author of it. We have to do it on a remedial site and serve as mass residue resource for the burn plant.

Now, in the process we have difficulties coming to grips with the slowness of the technological investigation on what can happen to ash. You are worried about air pollution. We have paid a double price so far. We not only have expended in our agreement about \$25 million for scrubbers and bathhouses, but just last week we expended more for thermal dentrifier, which is still not proven. They say this is good to get rid of the nitrous oxides, estimated \$600,000 in cost, with escalated expenses. We're talking about another \$25 million.

One thing that's been constantly or purposely ignored is, we came into this game late. We had to do our assessment and containment, in view of what existed before us. So we have to take the final and ultimate measures. And if we did not qualify with the knowledge that Essex was permitted, as was Bergen, as is Passaic and now Union on the line, we could not achieve the permit. We're well along in our permit process. We have bought a plant that meets state of the art, and if you believe EPA on thermal denox, it exceeds current state of the art.

I would expect, then, that the next entrant who is starting the process will have to achieve higher attainment. I've also had our county buy air emission credits that were banked. We did that three years ago in anticipation that it would be required. I can't see that air pollution is a serious problem in the totality of the picture in New Jersey, when so many other instruments are flying practically unfettered -- sludge incinerators, cogeneration plants, and thousands of permitted factories with all sorts of incinerators. I don't think the State even knows how many they've licensed. They charge counties like mine to catalog them and get them current.

In essence, I think our concerns are simple. Figure out a way to protect the expenditures we made. And we'd love to cooperate with you on recycling to the limit, and making a

finite system that might flow faster -- five-year permitting systems, three-year BPU McEnroe systems, and, you know, all the rest of it, franchise, whether they listen to us when they release everything on the McEnroe process. McEnroe put together the magic tipping fee. All the components justify it, and you only have to come in for a rate once. I do believe we'll get it, and I think the condition will be that we come back every year, when I hear from my neighbors.

I have a concern: If Gloucester, for example, doesn't get last year's rate application done until next year, they will suffer the losses in-between until it's heard. The system as it exists is too slow.

I thank you for your time. If you have any questions--

SENATOR DALTON: In the interest of time, we're going to have to defer any questions. However, we may be reaching out to you.

MR. FIORE: I'd love it. If they can each take five minutes to summarize their testimony, is that the process?

SENATOR DALTON: We'll start with Mr. Sodie.

W A L T E R S O D I E: Thank you very much, Mr. Chairman. I am Walt Sodie. I represent the Township of Bridgewater, Somerset County, which has a county solid waste incinerator. I'm making the statement on behalf of the Mayor.

I have, in my written testimony, my qualifications for presenting this testimony. Very briefly, in my former career I was a broadcast journalist. I covered the development of DEP policy on solid waste management from its inception. So, much of the research that I've been working on for the past year had its genesis throughout the 1970s and '80s. More significantly, what I have in my written testimony is a result of a year-long effort of research by a team of environmental and legal specialists as government relation counsel for the town of Bridgewater. We believe in a information process, such as this

one, where the issue is not the incinerator but the environmental domain of mass burn incineration, specifically, New Jersey.

My statement is directed to points one, two, and six on your memorandum. In response, first, to points one and two, it is our position that a cap should be imposed on the number of incinerators that may be permitted in New Jersey. And that a cap should be imposed on the number of solid waste -- on the number of tons of solid waste that may be incinerated in the State.

Now, we're not prepared at this moment to specify the exact number of incinerators, or the precise limitation that should be imposed on the number of tons. Well rendered decisions cannot be made on these points until further research is conducted into a number of critical questions that we outline in our written testimony. I'm going to try to condense this. I want to say that there is a great deal about air emissions monitoring that is not well-known. The emissions, supposedly being monitored continually, represent only a fraction of the incinerator's total emissions, and the substances being monitored are the more common chemicals, so to speak, and there are only six of them: nitrous oxides, sulfur dioxide, carbon monoxide, carbon dioxide, nitrogen oxide, and nitrogen. These are the only ones that are being monitored.

The Warren incinerator hasn't been in compliance with some of those. We raise the question, what happens to the known-- (indiscernible) If we understand the DEP regulations correctly, the only way they can be measured is by one-time tests, largely by taking samples of the stack during the trial burns and attending at the laboratory for analysis. Most of the time, this is done under most terms, as we understand it, only on start-up.

But I want to add a footnote-- We understand that on some of the recent permits that DEP has included a

stipulation: Dioxin and feron emissions as much as once a year. That's better than just on start-up. It's vastly inferior to continuous monitoring. I'm not certain on this, and I didn't put it in my written testimony. I think that the technology does not even exist for monitoring the dioxins and ferons, the whole family of them, and some of the other organic substances on a continuous basis. But I do have to check that information out for sure.

We have put together some research from a couple of documents that are on public record, compiled by the EPA Science Advisory Report. These are the types of questions that I dealt with in putting together -- in trying to decide on the editorial-- Ten years ago, five years, to up to two years ago, they were the same kinds of questions I tried to answer and develop a position on when I ran for the State Assembly two years ago.

The basic bottom line is, a lot of questions have not been answered. DEP tells us we don't have to carry out air emissions because of the continuous monitoring, and because whatever emissions are not monitored are taken care of by the completely high combustion temperatures.

The EPA Advisory Board isn't -- a quote from page six -- "combustor" design, and the technology of emission control; for example, higher incinerator temperature more thoroughly destroys certain metals, volatilizes, creating the potential for emissions with greater metal concentrations, increased nitrogen oxide."

The DEP has said on the record at a hearing before the Assembly Committee on County Government, which was a hearing on Assembly Bill A-4105, which would impose a moratorium on incinerators, that the levels of dioxin emissions are too inconsequential to be of any concern.

Now, the EPA Science Advisory Report tells us -- one of the two tells us -- half of all emissions are gaseous;

however, most relevant research has been consulted. TCDD, which is a solid form of dioxins, the gases-- There are three other quotes on dioxins, all with similar serious questions raised in the EPA report. Just to show you that we have other sources, credible sources in our research, not relying just on the EPA report, there's a manual called, "How to Implement Waste Energy Projects." The author of this book is filled with information on anything that anyone would need to know on how you get a garbage incinerator permit. Even this author does not acknowledge the problems.

There's a quote on page 140, I believe, where the author says, "The fate of dioxin-based emissions is largely unknown." And this, essentially, you have to say is one of the gurus of mass burn. We're not talking about fly-by-night environmental groups here, Mr. Chairman.

In response to the question on whether the number of incinerator permits should be limited and the amount of tonnage should be limited, what we're saying is, there were two bills on the record right now, A-4105, which has undergone two public hearings, and A-363, which calls for neither of those to our liking. We would urge this Committee to develop an alternative. What we're asking, by requesting this Committee to slow down the process of the rush towards incineration, is, are we being hysterical? Are we basing it on scientific evidence?

This Committee has the power to put this entire Solid Waste Management Division into the scientific perspective that it merits. We would respectfully ask that you do that -- to see that these questions are answered before we go ahead with the full-fledged incinerator program that's on the books now. It's extremely difficult, what to do, where facilities have already been constructed. We hate to say stop construction.

There's going to be a loss, even if construction is stopped. In view of the seriousness of some of the questions

raised in these reports, I would be very happy to make these available to the OLS staff for photocopying. I can pick them up next week. Otherwise, they are readily available, and the reference numbers are in the written testimony. We don't see how we can move ahead certainly with the full-fledged program that the DEP has on the books right now. Thank you very much.

SENATOR DALTON: I appreciate your brevity and summation of your testimony.

M A D E L Y N H O F F M A N: I apologize if what I say becomes a little disjointed. I know you're tired. I didn't have lunch. I hope this comes out and makes some sort of sense.

I've been working with citizens' groups around the State dealing with various different environmental groups since 1982, between 100 and 125 such groups, active in the State. A good 30 to 40 of them are concerned with garbage incineration.

My knowledge comes from my interaction with those groups over the years since 1982. I'd like to talk in generalities, if I could, since I don't have very much time. You asked the question many times, "What do we do with the incinerator projects that are underway?" And I just wanted to make one point. In Austin, Texas, there was a plan that was proposed. They had already invested \$22 million for implementation of that plan. The government officials decided that in order to save their residents many millions of dollars over time, that it was a prudent decision to abandon their project and abandon the \$22 million that they had put into it, because that \$22 million, even though it was a substantial sum of money-- There would be a lot more that the community would have to pay, if they went ahead with the incinerator project. They scrapped it, and rationalized the investment of the \$22 million. And, in that kind of way, I think what we're faced with in the State of New Jersey is something that we've been faced with since I began in 1982; that is, we're at a time when we can make the change in public policy, and the kind of way that we will deal with solid waste.

Landfilling has proven to be a very dangerous kind of waste disposal. There's lots of opposition around the State and around the country because of contaminated drinking water that occurred based on landfilling. And my sense is, that is what's happened in the State. Those people who are involved with landfilling -- the landfill operators and the waste haulers, and the disposal people -- realize that there was a threat to their well-being. Based on the opposition, based on the pressure to shut down landfills, there was a need to come up with a different way of proceeding. Garbage incineration represents a way to continue business as usual, just shifting it some. Instead of bringing all of your waste to a landfill, you bring all of your waste to an incinerator. You must have a landfill, and you must have a landfill for when the incinerator is not operating. You must have a landfill for ash, so the people can continue to do what they were doing with very little change. They didn't bargain on the fact that there would be an awful lot of people that were, instead, pushing for something else. I'd like to say, there was a cartoon I saw once that I think sums this up, a question being posed: "What do you think of landfilling?" And the response of the executive, "Landfilling is a great idea. I own the landfills." "What do you think of garbage incineration?" The executive says, "Incineration is a great idea. I own the incinerators."

The last frame is, "What do you think of recycling?" He kind of scratches his head. "I'm not sure. Recycling, it will never work."

What we're into right now is a war over garbage, who controls the garbage, who owns the garbage, who benefits from disposal of the garbage? And what the people of the State of New Jersey have been saying for as long as I've been involved in this is, "We want more control over the garbage. We don't want to be held hostage to companies like Foster-Wheeler, and the like," and we've heard discussions here about contracts. Are we in the business of protecting their good investment?

And, for the most part, if you look at what the Public Advocate has written on the contracts that have been signed, community people and taxpayers are over the barrel in terms of the cost they must absorb.

Ash disposal, no matter where it has to go, is built into the contract. The costs have to go to the taxpayer. The liability is on us. The list goes on. You've heard them before, and I could go into it longer if I had more time.

The other thing that we're involved with here, is, the Department of Environmental Protection and the way they've chosen to define the 1976 Solid Waste Management Act. That Act said each county, and as a State, should make practicable use of resource recovery. They defined resource recovery in many different ways. Resource recovery equals burning. Composting recovers resources; recycling recovers resources. All of those are much more efficient measures of recovering, than burning them in a garbage incinerator is.

So, I think, here again, we're talking about the Department of Environmental Protection. They've interpreted-- They say it equals garbage incineration. There's nothing in the law that precludes any other part of the law to be used.

If we had time, I could explain resource recovery through recycling, which is much more effective. If you take a piece of plastic, and you burn it, you need much more energy than you create by burning to produce that plastic from the raw material. You also have the primary process involved in creating that piece of plastic.

We're concerned about the ozone layer. We are concerned about fossil fuels and energy. It's a false energy. An incinerator is net energy loss, and, at this time, impacts poorly on all the larger issues that we're most concerned about.

Last point here-- I just learned yesterday, out of the recycling, \$800,000 of that has recently been appropriated by the DEP to study ways to recycle the ash from garbage

incinerators. That, to me, is a real insult to the idea of using public money to fund recycling efforts, because, again, if you look at incineration as a whole, it's not in that recycler. It's not an energy gainer. Eight hundred thousand dollars, if it were applied to developing markets for batteries, for recycling batteries, if it were applied to the other recycled plastics, I think that money would be a lot better spent.

I think that we're in a position where we can make some demands of the Department of Environmental Protection. You're in a position where you can further the aims and the goals and the desires and hopes of many, many New Jersey residents, and I hope that you will.

The other point here is that if you take a look at all of the things that were presented before the Department of Environmental Protection, they have never denied a permit for a garbage incinerator to be constructed. They have never done it. They have rejected plans by counties that didn't include incineration. Any proposal that came before them with incinerator in it was accepted, and the incinerator was accepted. I think we have to change that -- the ways that have been in the works -- so we don't find ourselves being held hostage by decisions that were made before people were aware of the implications about those decisions.

I think we can make-- I would be glad to spend more time with you talking about specifics in some of the counties or pointing out to you some materials that have been developed, other recycling plants that have worked. I'm only sorry that I had five minutes at the end of a long day, when everyone is not at their best, in terms of being able to present and receive the information.

Thank you very much.

SENATOR D'AMICO: Is there a chance that you might have an opportunity to write some of that down?

MS. HOFFMAN: I could write some of that information down. If there's something specific--

SENATOR D'AMICO: Yes, on the recycling, the economics of it, particularly. I was intrigued by the testimony that you provided in that area, and the recycling centers to which you made reference.

SENATOR COSTA: Whom do you represent?

MS. HOFFMAN: I am Director of the Grass Roots Environmental Association. We have offices in Bloomfield, and Woodbury Heights, New Jersey.

Like I said, we're working with over 100 grass roots citizens' groups in the State on various environmental issues, and the incineration of garbage seems to be the primary concern at this point.

SENATOR DALTON: Thank you very much. Mr. Kalainikas.

R A Y K A L A I N I K A S: I have written testimony. Mr. Chairman, there are three points I'd like to bring out -- just my opposition to incineration.

The second point would be I would ask you to put the whole issue of incineration to the people of the State of New Jersey via State ballot, non-binding. Perhaps it hasn't been discussed here today.

Briefly, in terms of my opposition, four points: It's costly to the taxpayer. I'm from Ocean County. And Mr. Bartlett, who is a Freeholder, has indicated it will cost \$350 million to \$500 million when we actually fix the costs totally.

Number two, deprivation of individual determination. When municipalities had the right to deal with municipal waste, the individual within a municipality had a voice. Once you extend it to the county level, one voice amongst the population of the county becomes less. If you want to talk about regionalization, maybe two or three counties, that voice becomes even fainter.

In the mass burn or incineration talks, the individual has very little choice, very little control over toxic emissions and toxic ash. There are statistics. What I pointed out once was if you're concerned about a body of water being somewhat of a pollutant, you can always stay out of that body of water. You can refuse to go in. But, tell me someone who can refuse to breathe the air that is around him or her? In other words, when in doubt concerning the toxicity of the air, do nothing that will be detrimental. If there is any doubt, do nothing, because you can't walk out of this ocean of air to something. You can walk out of an ocean and a lake and a pond, but you cannot do it with the air we breathe. When in doubt, do nothing.

Number four, obviously, a waste of usable resources, recycling. Composting is not a waste. It's very beneficial. But incineration-- I think common sense tells you it's a waste.

Those four points compose my opposition. When I say put it to the voters, the last two years, in '87 and '88-- In '87, I spearheaded calling for municipalities to put the mass burn issue on the ballot. In '87, six municipalities agreed to put it on the ballot. They heavily voted against it.

Last year, 18 municipalities agreed to put the incineration question on the ballot. Again, they voted against incineration, and the vote was 38,820 to 30,686.

As far as the Freeholders, they didn't listen to the will of the people. Three Freeholders still wanted to move wholeheartedly -- George Buchwald, Vicari, and Damian Murray. They still continued to push for incineration.

What I'm saying here is, I think this is our government. The basic principle: The elected official must seek out the will of the people and then proceed to do that, as long as life and liberty are given to us by the Creator, as we hold it, and to the Bill of Rights, and I'm asking that because this issue is so vital and so important. On an everyday basis

you're asked to make the decisions of government. But the people, really, if this is a government by, for, and of the people-- You are servants. When the people want to make the decision, they should be allowed to make that decision. Put it on the ballot.

And the two questions I would ask would be: Should a mass burn incinerator be constructed anywhere within the State of New Jersey? And, shall a hazardous and toxic waste landfill be constructed anywhere within the State of New Jersey? I would say that very well covers the heart of the matter.

Allentown, on 9, agreed to put in Monmouth County a hazardous waste tox incinerator in their resolution. They oppose the use of the field or Greenfield sites, but they want to see the people's decision. They want their will expressed officially in the ballot box. I would ask you to do that.

And the last concern I said I would address would be the alternative. I will read it. What is not biodegradable in terms of trash or waste should be recycled at the expense of retailers and manufacturers, and not at the direct expense of consumers through taxation by the municipality, county, and State. What is considered to be trash or combustible trash is all that should be left at the homeowners' curb for pick up. Newspaper, glass, metal, plastics should be returned to the retailer or manufacturer recycling at the sole cost to the retailer or manufacturer, out any deposit of money involved.

The reason I say that is: If retailers are told, if I take my bag of dry trash, metal, glass, plastic, and as I go into a Foodtown and they have bins, and I must separate it before I go into the store, and they must pay for the pickup, they are going to think twice about what they put on the shelves, and how they market.

And if the post office is told, when they deliver the mail, that the next day they have to pick up all the refused mail that I didn't want, it's going to cost the mailer more.

If an appliance store says, when they sell me an appliance, they are going to have to take the old one back, or the same one, eventually the manufacturer is going to have to have a process. When he makes something, he's going to have a dual process of being able to take that back and reuse it. That's where it all has to go. Everything else I've heard has drawbacks.

We have to reach a point beginning where we take the burden off the consumer and put it on the retailer, and, in turn, put it right back on the manufacturer. That's where it has to go. I'm saying, what the homeowner takes home in a paper bag, this type of recycling requires fewer stops on the part of trash haulers, and, by far, is a cleaner operation, and a very inexpensive operation for the homeowner, plus it involves government in only a minimal capacity.

Government should only be a catalyst. I don't want government involved in the whole process, only as a catalyst to assist private industry. Private industry is going to have to recycle and take back and reuse, and they are going to have to pay the cost, and you watch how things-- I've asked the County of Ocean to put in an ordinance to that effect, where food stores will have to take back plastics and metals and so on, and they are reluctant to do that. They said, "Go to the State and ask the State to do it."

If you would think about legislation in that direction, where all our food stores, all our appliance stores, anybody who deals with recyclables that are not biodegradable is going to have to take that back, that's going to change the whole business, I think, of solid waste. That's all I have.

SENATOR DALTON: Thank you. That concludes our hearing today.

(HEARING CONCLUDED)

**APPENDIX**



REMARKS OF  
COMMISSIONER CHRISTOPHER J. DAGGETT  
BEFORE THE  
SENATE ENERGY AND ENVIRONMENT COMMITTEE

MEMBERS OF THE COMMITTEE, I WELCOME THIS OPPORTUNITY TO TALK WITH YOU TODAY ON CRITICAL ISSUES AFFECTING THE FUTURE OF SOLID WASTE MANAGEMENT IN NEW JERSEY. I COMMEND THIS COMMITTEE FOR ITS FORESIGHT IN INITIATING DISCUSSIONS ON THIS IMPORTANT AND CONTROVERSIAL PROBLEM IN AN OPEN AND CONSTRUCTIVE FORUM SUCH AS THIS. I PROPOSE TO USE THIS OPPORTUNITY, NOT ONLY TO PRESENT TO YOU THE DEPARTMENT'S ACCOMPLISHMENTS, ITS PROBLEMS AND THE STATUS OF OUR SOLID WASTE PROGRAMS AND ACTIVITIES, BUT ALSO TO ACCELERATE THE ONGOING DIALOGUE BETWEEN THE DEPARTMENT AND THE LEGISLATURE IN ORDER TO BETTER PLAN FOR THE FUTURE TOGETHER. SPECIFICALLY, MY STAFF AND I WOULD LIKE TO DISCUSS FOUR GENERAL AREAS: STATE SELF-SUFFICIENCY, OUR FOUR-PRONG SOLID WASTE STRATEGY, REGIONALIZATION AND TECHNICAL ISSUES CURRENTLY FACING THE SOLID WASTE PROGRAM IN NEW JERSEY. I WILL ADDRESS THE FIRST THREE ISSUES AND DON DEIESO WILL TAKE THE FOURTH.

SELF-SUFFICIENCY

AS I'M SURE YOU ALL KNOW, THE STATE HAS ADOPTED AS ITS POLICY: "SOLID WASTE SELF SUFFICIENCY BY 1992." BY THIS STATEMENT WE MEAN THAT IT IS OUR GOAL TO HAVE THIS STATE DISPOSE OF ALL SOLID WASTE WITHIN OUR OWN BORDERS BY 1992. THE CORNERSTONE FOR MEETING THIS GOAL IS THE 4-PRONG MANAGEMENT STRATEGY OF WASTE REDUCTION AT THE SOURCE, RECYCLING, RESOURCE RECOVERY AND LANDFILLING WHICH I WILL DISCUSS LATER.

PRESENTLY IN NEW JERSEY, OVER 50% OF OUR SOLID WASTE IS EXPORTED FOR DISPOSAL TO STATES SUCH AS PENNSYLVANIA, OHIO AND WEST VIRGINIA. THESE STATES AND OTHERS ARE SEEKING, AS WE DID IN THE PAST, BY WAY OF LEGISLATION OR REGULATION, WAYS TO RESTRICT THE FLOW OF N.J. WASTE INTO THEIR STATES. THIS BASIC FACT IS WHAT IS DRIVING OUR POLICY OF SELF-SUFFICIENCY AND WHICH IN TURN IS REFLECTED IN OUR EMPHASIS ON INCREASING SOURCE REDUCTION, RECYCLING AND THE SITING AND PERMITTING OF DISPOSAL FACILITIES.

I CALL YOUR ATTENTION SPECIFICALLY TO THE STATES OF PENNSYLVANIA AND OHIO, WHICH RECEIVE APPROXIMATELY 90% OF N.J.'S EXPORTED WASTE. PENNSYLVANIA RECENTLY PASSED LEGISLATION (SB528) DURING THE SUMMER OF 1988. THIS BILL REVISED THE STATES STATUTORY STRUCTURE FOR SOLID WASTE MANAGEMENT AND RECYCLING. THIS BILL, THE MUNICIPAL WASTE PLANNING, RECYCLING AND WASTE REDUCTION ACT, MAKES COUNTY GOVERNMENT RESPONSIBLE FOR BOTH FACILITY PLANNING AND WASTE FLOW CONTROL. THE ACT REQUIRES COUNTIES TO SUBMIT MUNICIPAL WASTE MANAGEMENT PLANS BY 1991. THESE PLANS ARE SIMILAR TO THOSE DEVELOPED BY OUR OWN COUNTIES IN THAT THEY MUST INCLUDE INFORMATION ON WASTE GENERATION/ORIGINS WITHIN THE COUNTY OVER A 10 YEAR PERIOD AND DESCRIPTIONS AND CAPACITY OF CURRENT DISPOSAL FACILITIES.

IN THE STATE OF OHIO, THE GOVERNOR CONSIDERED SIGNING LEGISLATION CALLING FOR THE BAN OF OUT-OF-STATE WASTE. ADVISED THAT SUCH A BAN WAS NOT CONSTITUTIONAL, THE STATE AGAIN MIRRORED OUR PROGRAM BY ESTABLISHING SOLID WASTE DISTRICTS THAT ARE RESPONSIBLE FOR HANDLING THEIR OWN WASTES. THIS PLAN ALSO TIES THE GENERATION OF WASTES CLOSELY TO CAPACITY WHICH COULD WORK TO REDUCE UNPLANNED WASTE STREAMS FROM ENTERING A DISTRICT. IN ADDITION, OHIO ALSO HAS NEW REGULATIONS WHICH BECAME EFFECTIVE JANUARY 1 OF 1989. THESE REGULATIONS REQUIRE HAULERS TO SIGN CONSENT FORMS PRIOR TO TRANSPORTING OUT-OF-STATE WASTE INTO OHIO. THIS IS BEING

CHALLENGED BY NSWMA. WE CANNOT BE SURE OF THE OUTCOME OF THIS CASE AND IF THE CHALLENGE FAILS, AND IF PENNSYLVANIA AND OHIO CLOSE THEIR BORDERS TO OUR TRASH, IT IS NOT ENOUGH SIMPLY TO SAY THAT WE WILL SHIP IT FURTHER SOUTH OR WEST.

IT BECOMES EVIDENT THROUGH THIS AND OTHER INFORMATION THAT NEW JERSEY CAN NO LONGER SAFELY RELY ON OUT-OF-STATE DISPOSAL OPTIONS. EVEN WITH AVAILABLE DISPOSAL CAPACITY AT OUT-OF-STATE FACILITIES, DISPOSAL AT THESE LOCATIONS WILL SURELY COME WITH A HIGH AND UNSTABLE PRICE TAG. ADDITIONALLY, NEW PROPOSED REGULATIONS FOR SUBTITLE D OF RCRA WILL, WHEN ADOPTED, CAUSE MANY OUT-OF-STATE LANDFILLS TO CLOSE AND WILL INCREASE THE COSTS OF OPERATIONS OF OTHERS. THROUGH THE IMPLEMENTATION OF THE SELF-SUFFICIENCY GOAL WE CAN ESTABLISH BOTH GUARANTEED DISPOSAL CAPACITY AND PREDICTABLE DISPOSAL COSTS, A LUXURY ENJOYED BY ONLY A VERY SMALL PORTION OF THE STATE TODAY.

THE INFORMATION WE ARE SUPPLYING TO YOU TODAY SHOWS THAT ALTHOUGH WE ARE APPROACHING OUR GOAL, IT HAS BEEN A VERY SLOW AND DIFFICULT PROCESS. THERE ARE STILL MANY "GAPS". I REFER PRIMARILY TO THOSE COUNTIES WHICH HAVE YET TO ADDRESS THEIR SOLID WASTE DISPOSAL SITUATION BY SITING A LANDFILL OR RESOURCE RECOVERY FACILITY. IT IS EVIDENT THAT TIME IS RUNNING OUT.

I WOULD LIKE TO URGE THE DEVELOPMENT AND PASSAGE OF LEGISLATION WHICH WOULD ESTABLISH PENALTIES FOR THOSE COUNTIES WHICH ARE NOT ON THEIR WAY TO ACHIEVING SELF-SUFFICIENCY. WE HAD SUGGESTED, OVER A YEAR AGO, THROUGH TESTIMONY ON LEGISLATION, THAT NON-PERFORMING COUNTIES BE PENALIZED IN SOME WAY FOR THEIR LACK OF ACTION ON THIS PRESSING ENVIRONMENTAL ISSUE. THE LEGISLATION I AM REFERRING TO IS ASSEMBLY BILL 462 BY ASSEMBLYMAN SHINN WHICH IS PRESENTLY AWAITING CONSIDERATION IN THIS COMMITTEE.

THIS BILL WAS FIRST INTRODUCED IN MARCH OF 1987. ALTHOUGH THE SOLID WASTE SITUATION HAS CHANGED SINCE THIS BILL'S INTRODUCTION, MOST OF THE ISSUES IT SEEKS TO ADDRESS ARE AS RELEVANT TODAY AS THEY WERE THEN. THIS BILL WOULD GRANT TO THE DEPARTMENT ADDITIONAL POWERS TO IMPLEMENT EMERGENCY PLANS ON BEHALF OF COUNTIES DURING A DECLARED STATE OF SOLID WASTE EMERGENCY. THE PASSAGE OF THIS BILL WITH AMENDMENTS WOULD APPROPRIATE ADDITIONAL MONIES TO DEPARTMENT EDUCATION PROGRAMS AND ADMINISTRATION, AS WELL AS ESTABLISH PENALTY PROVISIONS FOR NON-PERFORMING COUNTIES. EQUALLY IMPORTANT, THIS BILL WOULD GIVE US THE NEEDED AUTHORITY TO ASSURE COMPLIANCE WITH OUR GOAL OF SELF-SUFFICIENCY. ACTION ON THE BILL BY YOU AND YOUR COUNTERPARTS IN THE ASSEMBLY COULD HELP TO SECURE THE FUTURE OF SOLID WASTE DISPOSAL IN NEW JERSEY AND PUT THE NECESSARY PRESSURE ON NON-PERFORMING COUNTIES TO IMPLEMENT THEIR SOLID WASTE PLANS.

THE FACT THAT N.J. HAS BEEN A NET EXPORTER OF SOLID WASTE MAY RESULT IN SOME YET TO BE REALIZED CONSEQUENCES. FOR EXAMPLE, NEW JERSEY COULD CONCEIVABLY BE HELD PARTLY RESPONSIBLE FOR CONTAMINATION WHICH MAY BE DISCOVERED AT AN OUT-OF-STATE LANDFILL IN THE FUTURE. THIS IN ITSELF IS A STRONG CASE FOR SELF SUFFICIENCY AND DISCONTINUING OUR RELIANCE ON OUT-OF-STATE DISPOSAL FACILITIES.

#### FOUR PRONG MANAGEMENT STRATEGY

AS STATED EARLIER, THE CORNERSTONE OF NEW JERSEY'S STRATEGY TOWARD ACHIEVING SELF SUFFICIENCY IS A FOUR-PRONG APPROACH OF WASTE REDUCTION, RECYCLING, RESOURCE RECOVERY AND LANDFILLING. ALL FOUR ELEMENTS MUST BE PRESENT IF WE ARE TO EFFECTIVELY MANAGE OUR SOLID WASTE.

WASTE REDUCTION, THE NEWEST COMPONENT OF THE SOLID WASTE MANAGEMENT STRATEGY CALLS FOR THE REDUCTION OF WASTE AT ITS SOURCE. THIS CAN BE ACCOMPLISHED AT A VARIETY OF LEVELS FROM MANUFACTURER TO CONSUMER AND FROM DISTRIBUTOR TO RETAILER. PRESENTLY, THE DEPARTMENT IS IDENTIFYING SPECIFIC MEASURES WHICH CAN BE INITIATED AT THESE LEVELS TO ACHIEVE WASTE REDUCTION. SUCH MEASURES, OVER TIME, WILL RESULT NOT ONLY IN REDUCTION OF SOLID WASTE BUT IN THE CONSERVATION OF RESOURCES AND POSSIBLY A REDUCTION IN OPERATIONAL AND PRODUCT COSTS. THERE ARE SEVERAL WASTE REDUCTION INITIATIVES ALREADY UNDERWAY IN NEW JERSEY, AND WITH CONTINUED RESEARCH AND COORDINATION IN CONJUNCTION WITH SUCH GROUPS AS CONEG (THE COALITION OF NORTHEASTERN GOVERNORS) AND THE RUTGERS DEPARTMENT ON CONTINUING EDUCATION, THE DEPARTMENT CAN PURSUE A PUBLIC INFORMATION PROGRAM SIMILAR TO WHAT WE HAVE DONE WITH RECYCLING IN NEW JERSEY.

RECYCLING OFFERS THE MOST IMMEDIATE RELIEF FROM OUR SOLID WASTE DISPOSAL PROBLEMS. MOST OF THE COUNTIES IN NEW JERSEY HAVE APPROVED PLANS IN PLACE AND WE ARE FAST APPROACHING THE LEGISLATIVELY MANDATED GOAL OF 25%. I MUST NOTE THAT THIS PERCENTAGE IS REFLECTIVE ONLY OF THE RECYCLING RATE FOR THE DESIGNATED RECYCLABLES (I.E. ALUMINUM, GLASS, PAPER). OTHER MATERIALS ARE BEING RECYCLED IN THE STATE SUCH AS CONSTRUCTION DEBRIS, BATTERIES, OIL AND PLASTICS, AND, WITH THE PASSAGE OF AN EMERGENCY RULE, ALL LEAVES ARE BEING REMOVED FROM THE WASTE STREAM AND COMPOSTED. THESE MATERIALS WOULD SERVE TO INCREASE THE ACTUAL RECYCLING PERCENTAGE RATE IN NEW JERSEY. CURRENTLY, THE DEPARTMENT IS LOOKING INTO EXPANDING THE LIST OF DESIGNATED RECYCLABLES, THE DEVELOPMENT AND EXPANSION OF TECHNOLOGY TO RECYCLE NEW MATERIALS AND PROMOTING THE PURCHASE OF RECYCLED PRODUCTS.

RECYCLING IS CLOSELY TIED TO RESOURCE RECOVERY AND LANDFILLING, THE FINAL TWO STAGES OF THE MANAGEMENT STRATEGY. SPECIFICALLY, WITH THE EXCEPTION OF WARREN COUNTY, ALL RESOURCE RECOVERY FACILITIES IN THE STATE ARE "SIZED DOWN" TO ACCOUNT FOR THE 25% RECYCLING GOAL. ADDITIONALLY, THE POSSIBLE EXPANSION OF THE DESIGNATED RECYCLABLES WOULD KEEP ADDITIONAL NON-COMBUSTIBLE MATERIALS OUT OF THE LANDFILLS (I.E. TIRES, BATTERIES, DEMOLITION DEBRIS).

THE THIRD COMPONENT OF THIS MANAGEMENT STRATEGY, RESOURCE RECOVERY, WILL SERVE TO: (1) GREATLY REDUCE THE VOLUMES OF WASTE REQUIRING LANDFILLING AND (2) RECOVER ENERGY. THESE FACILITIES, SPECIFICALLY MASS-BURN INCINERATORS, HAVE BEEN THE SUBJECT OF MANY DEBATES OVER THE PAST FEW YEARS BUT IT MUST BE NOTED THAT NEW JERSEY HAS SOME OF THE MOST STRINGENT ENVIRONMENTAL REGULATIONS IN PLACE WHICH MUST BE MET WHEN PERMITTING THESE FACILITIES. ADDITIONALLY, THESE FACILITIES WILL BE UTILIZING STATE-OF-THE-ART TECHNOLOGY AND WILL BE CONSTANTLY MONITORED BY THE DEPARTMENT.

LANDFILLING, THE FOURTH AND FINAL STAGE OF THIS MANAGEMENT PLAN WILL BE USED FOR THE BY-PASS MATERIALS AND THE ASH FROM THE RESOURCE RECOVERY FACILITIES. NEW LANDFILLS IN NEW JERSEY HAVE VERY RIGID DESIGN STANDARDS, INCLUDING DOUBLE COMPOSITE LINER SYSTEMS AND LEACHATE COLLECTION AND METHANE GAS COLLECTION SYSTEMS. THESE FACILITIES ALSO WILL BE CLOSELY MONITORED BY DEPARTMENT PERSONNEL.

## REGIONALIZATION

AS THE STATE MOVES TOWARD SELF-SUFFICIENCY THE CONCEPT OF REGIONALIZATION IS RECEIVING MUCH ATTENTION. THE SOLID WASTE MANAGEMENT PROCESS HAS BEEN ONGOING, ALBEIT SLOWLY IN MANY PARTS OF N.J. SINCE 1975. IT IS UNFORTUNATE THAT THIS CONCEPT HAS ONLY BEEN SERIOUSLY CONSIDERED IN RECENT YEARS. THERE HAVE BEEN MANY QUESTIONS RAISED AS TO WHETHER WE WILL NEED THE NUMBER OF FACILITIES THAT ARE CURRENTLY BEING PLANNED. I MUST ADMIT TO YOU THAT THE DEPARTMENT IS ASKING THESE SAME QUESTIONS. REGIONALIZATION SHOULD BE CONSIDERED AS AN ANSWER TO THIS QUESTION.

THE DEPARTMENT GENERALLY ENDORSES REGIONALIZATION, BUT IT CAN ONLY BE SUCCESSFUL AND PRACTICAL IF IT DOES NOT IMPEDE THE PROGRESS ALREADY MADE BY THOSE COUNTIES WHICH HAVE TAKEN THE PROCESS SERIOUSLY IN LONG-TERM SOLID WASTE PLANNING AND ACTUAL FACILITY DEVELOPMENT. ANY MOVE TO REGIONALIZE MUST BE DONE WITH A MECHANISM IN PLACE TO ENSURE THAT THE PERFORMING COUNTIES ARE IN NO WAY PENALIZED THROUGH THIS PROCESS OR THAT THE NON-PERFORMING COUNTIES ARE REWARDED. REGIONALIZATION SHOULD BE CAREFULLY EXPLORED IN EACH INSTANCE BECAUSE THERE ARE SOME DRAWBACKS WHICH DON DEIESO WILL ADDRESS SHORTLY.

AS YOU KNOW, THE DEPARTMENT IS VERY LIMITED IN ITS POWERS TO INITIATE REGIONALIZATION. HISTORICALLY, WHEN THE LEGISLATURE WAS CRAFTING THE SOLID WASTE MANAGEMENT ACT AMENDMENTS (CHAPTER 326), A RIGID PLANNING PROCESS WAS ESTABLISHED WITH MOST OF THE KEY RESPONSIBILITIES SUCH AS TECHNOLOGY SELECTION AND SITING FALLING TO THE COUNTIES. AT THAT TIME, THE STATES 21 COUNTIES RECOGNIZED

THEMSELVES AS "REGIONS" AND SOLID WASTE PLANNING WAS BEGINNING TO TAKE PLACE ONLY WITHIN THE CONFINES OF THEIR BORDERS. MORE RECENTLY, HOWEVER, WE'VE BEGUN TO LOOK BEYOND BORDERS TO A BROADER REGIONAL APPROACH. IN RECOGNITION OF THE FACT THAT WE MAY NOT NECESSARILY NEED 21 RESOURCE RECOVERY FACILITIES AND 21 ASH LANDFILLS THERE HAVE BEEN SEVERAL ATTEMPTS AT REGIONALIZATION AMONG COUNTIES. THESE EFFORTS HAVE RECEIVED THE FULL SUPPORT OF THE DEPARTMENT. IN FACT, THE DEPARTMENT HAS WORKED CLOSELY WITH THESE COUNTIES SO THAT REGIONALIZATION MAY BECOME A REALITY. BY LAW, THOUGH, WE CAN ONLY OFFER LEADERSHIP AND GUIDANCE, WHICH WE HAVE DONE. THE ULTIMATE PLANNING, TECHNOLOGY SELECTION AND SITING AUTHORITY REMAINS VESTED WITH THE COUNTIES.

IN SUMMARY, WHILE WE SUPPORT REGIONALIZATION AND BELIEVE THE DEPARTMENT SHOULD FULLY ASSIST THE COUNTIES, PARTICULARLY WITH REGARD TO ASH LANDFILLS, WE DO NOT BELIEVE IT WOULD BE PRUDENT TO REVERSE 15 YEARS OF ESTABLISHED POLICY WHICH PLACES SITING AUTHORITY AT THE COUNTY LEVEL.

I WOULD LIKE TO INTRODUCE DONALD A. DEIESO, ASSISTANT COMMISSIONER FOR ENVIRONMENTAL MANAGEMENT AND CONTROL. HE WILL PRESENT TO YOU SOME OF THE MAJOR TECHNICAL ISSUES CURRENTLY FACING THE SOLID WASTE PROGRAM IN NEW JERSEY SUCH AS ALTERNATIVE TECHNOLOGIES, TECHNICAL ISSUES RELATED TO RESOURCE RECOVERY FACILITIES, SPECIFICALLY IN AIR, WATER AND ASH, AS WELL AS FUTURE PLANS FOR WASTE REDUCTION AND RECYCLING.

ADDITIONALLY, JOHN CZAPOR, DIRECTOR OF OUR DIVISION OF SOLID WASTE MANAGEMENT, WILL JOIN US AND WILL BE AVAILABLE TO ANSWER ANY SPECIFIC QUESTIONS YOU MAY HAVE.

THE STATE UNIVERSITY OF NEW JERSEY  
**RUTGERS**

Cook College • Department of Environmental Science  
P.O. Box 231 • New Brunswick • New Jersey 08903 • (201) 932-9574/9185

9735

24 April 1989

Dr. Gerald Cardinale  
Assistant Minority Leader  
Senator, 39th District (Bergen)  
350 Madison Avenue  
Cresskill, NJ 07626

Dear Senator Cardinale:

The information that you requested is enclosed. In this letter I offer comments.

#### WASTEWATER SLUDGE

Pictures of the volume reduction attainable are in Item #1, p. 6, Fig. 6. Close-ups are in Item #2, p.126, Fig. 1. The left-hand pair (pile 11A) is most relevant. Note the data for this pile (Table 6, top of page). In less than nine days, 25% of the dry weight of the mixture (sludge and recycled compost) was decomposed. Similarly, 36% of the volatile solids and 85% of the water disappeared.

This confirms observations first made independently in 1969, as described in Item #3, p.8-9, middle column (Eimco project). The essential information is on p.9, first column, "Reliable operation...was extensive." These investigators measured volume reduction directly, and this amounted to 73%. These two investigations have in common that a reasonably high rate of microbial activity was realized.

Several companies now pursue rate maximization, to demonstrably good effect.

Sussex County, N.J., represents only a mediocre example of applying the idea of rate maximization (Item #3, p.22, Table 1; p.24, middle column, "Conversion..."). They have gone perhaps 60% of the way. This was nonetheless sufficient to convert an outright failure to a notable success. Everything is relative!

Finally, the folly of Cape May is documented (Item #3, p.23).

## MUNICIPAL SOLID WASTE (MSW)

According to a 1988 EPA report (EPA/530-SW-88-052), the following approximates the makeup of MSW.

Paper and paperboard.....	40%
Glass.....	9%
Metals.....	9%
Plastics.....	7%
Rubber, leather, textiles.....	8%
Food waste.....	8%
Yard waste.....	18%

To a significant extent, MSW can be separated, at the household and/or MSW management facility, into its components for preparation for the secondary markets. The food and yard waste (putrescible material) could be composted, in combination with sludge if indicated.

A pilot intensive MSW recycling project demonstrated the recycling and/or composting of 84% of the waste stream (Final Report, "Intensive Recycling Feasibility Study for the City of Buffalo [N.Y.], 15 April 1988). The remaining material, amounting to 14% of the original, had to be landfilled. Such non-recyclable material is acceptable at ordinary sanitary landfills (in NJDEP parlance, class #1 landfills).

In contrast, incineration leaves approximately 25% of the initial weight as ash (Buffalo Report). Owing to its potentially hazardous nature, this material is not acceptable at ordinary sanitary landfills. At considerable extra expense, and with uncertain ultimate environmental cost, the ash must be brought to a special landfill.

The Buffalo Report contrasts the economic impact of intensive recycling and incineration. In terms of both magnitude and how the money flows, the long-term benefit of recycling to the local economy is clear.

Of course, no end of objections to intensive recycling can be raised. For example, "The market for used paper has gone to Hell!"

Answer #1. What a short-sighted argument. We need a modicum of long-sightedness. Markets recover. Mills are being built to process only used paper. What was previously the economic externality represented by environmental damage is rapidly being internalized into the cost of doing business. This is making secondary materials more attractive. Government is removing subsidies from virgin materials, and mandating the use of secondary ones. Landfilling and/or incineration costs are avoided.

Answer #2. How is the market for incinerator bottom ash? Fly ash?

#3. Assuming that it can be done at all, how long does it take to build and put on line an incinerator? The reality is that incineration cannot bail us out of the present situation. Rather, incineration has become a barrier to progress.

---

Recycling represents a free market and, I believe, a fundamentally democratic, approach to rational solid waste management. Incineration represents a government-imposed approach that would prevent the evolution of rational solid waste management. In my opinion, incineration is tinged with authoritarianism.

Finally, it must be considered that we are only at the beginning stages of a massive change in industrial civilization. Incineration has the effect of cutting off the future, and giving the impression that things can go on as before. Recycling sends the message upstream that all products ultimately become wastes. The philosophy must be that of cradle-to-grave materials cycling. This this can only come about through market forces that take into account realistic environmental costs. Ecology and economy are both derived from the same root (eco = house). Similarly, the operation of the two must come to reflect this commonality.

Gerrry, I wish you the best of luck. Do not hesitate to call on me again if I can be of help.

*Mel*

Melvin S. Finstein  
Professor

YOU COMPARE!

COMPOSTING/RECYCLING

- 1.) Takes 8 months to build.
- 2.) Needs NO ash landfill.
- 3.) Produces NO toxic ash.
- 4.) Composts & recycles 85% of our trash.
- 5.) Composting plants can be located at existing landfills; if no market for product, it can be utilized for landfill cover, replacing purchase & hauling of 15-25% volume of landfill.
- 6.) Will produce minimal trace gases, as opposed to incineration, as well as harmless amounts of carbon dioxide and water. Heavy metal content of organic compost is low, like that found commonly in normal soil. Creates NO Dioxin.
- 7.) Will not accept household or commercial hazardous waste of any kind.
- 8.) Ease of participation. We use two cans- one wet, one dry, plus bi-monthly pick-up of hazardous waste. Retrieves maximum recyclables.

MASS-BURN INCINERATION

- Takes 30-36 months to build.
- Needs an ash landfill.
- Produces thousands of TONS of toxic ash annually.
- Incinerates \*80% of all trash sent to it, leaving a 25% toxic ash residue. \*20% rejected/bypassed.
- Difficult to site, because of both imagined and real toxic emissions.
- There is never a market for Toxic ash
- Will release thousands of tons of noxious, ozone-destructive gases and heavy metals ; create by burning, the deadly dioxins and furans, and cause a hydrochloric acid fog to form over the area during inversions.
- Will burn all solvents, pesticides, batteries, etc., indiscriminately. Could be used for illegal toxic waste disposal including fertilizer from sludge plant.
- Homeowner must separate newsprint, cardboard, cans & bottles, plastics as well as garbage. Burns recyclables for heat value.

YOU COMPARE! YOU CHOOSE!

X 15

COMPOSTING & MECHANICAL RECYCLING  
AN ENVIRONMENTAL SOLUTION FOR HANDLING WASTE

COMPOSTING: Portland, Oregon spent \$5 million planning & siting a mass-burn incinerator, then discarded the plans on the advice of their health review panel (4Ph.D.'s & 3 M.D.'s) who advised "The panel cannot say that the proposed trash incinerator will be safe. We therefore recommend that the facility should not be built. This is our unanimous conclusion."

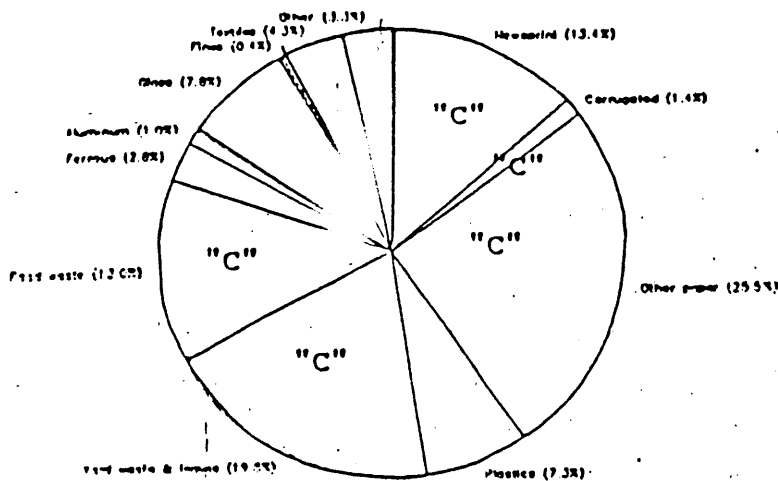
Dr. Melvin Finstein, noted Rutgers scientist points out that a microbiologically sound composting system could be designed and built by a governing body for far less by utilizing scientific (NOT vendor) input.

MECHANICAL RECYCLING: These systems deal with totally unseparated DRY waste. Via a series of conveyor belts & magnetic separators, as well as manual sorting, all recyclable components are separated, shredded, baled and readied for market. Mixed paper can be diverted to a composter if markets fail. The unusable remainder, under 15%, is safely landfilled.

## ADDITIONAL RESOURCES

The following "pie" was presented by international waste consultant Berndt Franke, as part of a study he did for Lacey Township. He used GBB-Killam's (O.C. consultants) waste composition study, but adjusted the figures to take into consideration the large amount of newspapers recycled by Lacey prior to the study. We have placed a large "C" in each section of the pie which, if you did nothing else, could be composted.

Composition of Lacey Township's solid waste (after GDB, 1988, revised)



"C" = 73% of Our Waste Stream

Please note: Percentages in the "pie" do not tell the whole story. The composting process is expected to reduce the total waste stream by 13% through volatilization: a waste reduction phenomenon which is an important and often overlooked benefit of composting. Along with this reduction, the life of the landfill could be extended even further, because the need for landfill cover is greatly reduced—in some cases by as much as 25% of the total amount of waste placed in a landfill. (Source: "A Non Incineration Solid Waste Management Plan" North Hempstead, N.Y. May 1988; "Results of the Evaluation of the Town Landfill With Regard to Volumes" Rowley Engineering, Stonington, Conn. Ref.#83-114)

# **NJPIRG**

New Jersey Public Interest Research Group  
99 Bayard St., New Brunswick, NJ 08901 (201) 247-4606  
11 N. Willow St. Trenton, NJ 08608 (609) 394-8155

**Testimony Before the Senate Energy and Environment Committee  
On the Issue of Incinerators For New Jersey  
June 1, 1989**

Good morning, my name is Rob Stuart and I am the Legislative Program Director for the New Jersey Public Interest Research Group, NJPIRG is the state's largest non-partisan, non-profit environmental and consumer research and advocacy organization with over 70,000 members. On behalf of NJPIRG I want to thank the Committee Chairman Senator Dalton and members of the Energy and Environment Committee for holding this important hearing on NJ's solid waste policies and for allowing NJPIRG the opportunity to present our views on the role of incineration in the state.

NJ is indeed at a crossroads on the solid waste issue, to burn or not to burn, to reduce, recycle or compost. Though as there appears to be several paths on which to travel, I think it is important to realize that the situation we find ourselves in today is more the result of conflicting strategies and uncoordinated approaches to perennial solid waste crises than of a reasoned scheme designed to deal with the entire issue. Thus while we respect the goal of this hearing as one of offering constructive suggestions to where statewide solid waste policy should be going in terms of incineration, it is important to note that even though incineration is lowest on the states' official solid waste hierarchy designated in the solid waste management act it has been afforded higher priority in terms of the states resources and energy and is only one aspect of the solid waste debate.

NJPIRG has long been involved in the question of solid waste management in New Jersey. For years we have been tireless advocates for effective recycling and source reduction controls. We support the hierarchy of reduction, reuse, recycling and recovery before landfilling and will continue to press to have the state implement its policy accordingly. Last Fall, in adopting a position against A-3107 a bill to establish \$135 million in additional state bond money to be used for the construction of incinerators, NJPIRG stated that until the state matched the

resources and energy it had put into incineration for reduction, reuse and recycling strategies the state should not dedicate more money on incineration strategies. Since that time we have adopted a position in support of an incinerator moratorium and for mandating an incineration alternative study. We believe a "cooling off" period on mass burn is critical for the state to research and evaluate the growing questions relating to the operation of these facilities and their environmental and economical consequences. Such a period of reflection would also give us time to consider the issues the committee has outlined for today's discussion.

First and foremost, NJPIRG believes that the lack of coordinated policy has led to the planning and design of resource recovery facilities far in excess of our needed disposal capacity. Regardless of the technology, reduction and recycling strategies must be factored into the needs assessment. As we have already witnessed in Warren County, there may be a bias towards designing bigger facilities than needed which removes incentives for aggressive reduction strategies to be employed. Thus we support the suggestion (#4) that an improved procedure be developed to assess the solid waste disposal needs of a particular county area and ideally the entire state. But again we must say that unless we mandate a reduction factor we will be laying the groundwork for our own worst nightmare.

Accordingly we support the spirit of suggestions (#14-16), which increase recycling goals and mandate downsizing of disposal facilities because as I have noted above, we believe the rush to burn mentality may prove to be the biggest deterrent to alternative recycling and recovery strategies. This is contrary to the argument that consumer attitudes support the growth in solid waste we are witnessing.

Specifically on the suggestion of mandating removal of items from the waste stream or mandating a higher recycling goal, NJPIRG emphatically believes that more responsibility must be placed on the generators of such waste and specific product material goals be employed. Where such strategies are in place, like in those states where bottle deposits are mandatory, collection and recovery is efficient and product design is influenced by product disposal options. Simply put, if a manufacturer knows that they will ultimately be responsible for the disposal of their product, they are more likely to design a product with end uses in mind.

For the committees information, attached to this testimony I have included an analysis of the spending in the Mercer County Bottle Bill Campaign. It may be more provocative than surprising to note here that over half (53%) of the \$528,681 dollars raised by the opposition campaign came from container distributors and manufactures located out of New Jersey. Obviously, there is strong reluctance on the part of the industry to take responsibility for the waste they create.

NJPIRG supports the spirit of suggestion (#2) that better environmental evaluation be done before additional incinerators or other disposal facilities come on line. No one knows better than this committee that our environmental problems facing our state are interrelated and we do not want to pursue an incineration strategy which cause us to fall further behind in our effort to pursue clean air and reliable and safe drinking water supplies. A cumulative study would also recognizes the potential environmental effects of other active or proposed incinerators for sludge or hazardous waste. Given the availability of Right To Know data, there would be value in also including relevant information about other ongoing toxic discharges into such a cumulative report.

Further, we recommend that this committee consider legislation sponsored by Assemblyman George Spadaro which would require stricter standards on air emissions from facilities than currently exist as well as establish ash residue testing and appropriate disposal standards.

In closing, I want to emphasis our support for the committee's action today. We believe the discussion engendered here and around the state will eventually show that there are alternatives to the rushed mass burn strategy we are presently considering. NJPIRG stands ready to support initiatives which strike at the heart of the solid waste problem by encouraging reduction reuse and recycling as well as measures which will allow us the opportunity to further explore alternatives to over reliance on mass burn technology. Thank you for the opportunity to testify, I would be happy to answer any questions.

**New Jersey State Library**

**Contributors to Mercer Citizens for Recycling: Grand Total \$ 528,681.66**

**OUT OF STATE**

<b>Contributors</b>	<b>Town</b>	<b>State</b>	<b>Type</b>	<b>Amount</b>	<b>Contributions</b>
Industry Union Glass Container Program	Washington	DC	container manufacturer	\$60250.00	2
Can Manufacturers Institute	Washington	DC	container manufacturer	\$39000.00	1
Anheuser-Busch	St. Louis	MO	beer manufacturer	\$38475.00	2
Acme	Philadelphia	PA	food store	\$20001.00	2 *
American Iron & Steel Institute	Washington	DC	container manufacturer	\$20000.00	2
Johnson Controls-Plastic Container Divi	Manchester	MI	container manufacturer	\$20000.00	1
Sewell Plastics Inc.	Atlanta	GA	container manufacturer	\$20000.00	1
Miller Brewing	Milwaukee	WI	beer manufacturer	\$17100.00	2
ALCOA	Pittsburgh	PA	container manufacturer	\$8187.00	1
Reynolds Aluminum	Richmond	VA	container manufacturer	\$8187.00	1
Adolph Coors	Golden	CO	beer manufacturer	\$7200.00	1
Tennessee Eastman Co	Kingsport	TN	container manufacturer	\$5000.00	1
Wine Institute	San Francisco	CA	beverage association	\$5000.00	1
G. Heilman Brewing Co.	La Crosse	WI	beer manufacturer	\$4500.00	2
Strohs Brewing Co	Detroit	MI	beer manufacturer	\$3150.00	1
Kasser Liquor	Philadelphia	PA	Unknown	\$1500.00	2
Jeffrey	Langhorne	PA	Unknown	\$500.00	1
Anco Aluminum	Louisville	KY	container manufacturer	\$362.00	1
Commonwealth Aluminum	Lewisport	KY	container manufacturer	\$362.00	1
Consolidated Aluminum	St. Louis	MO	container manufacturer	\$362.00	1
Aluminum Mill Products Inc	Morris	IL	container manufacturer	\$361.00	1
Society of Plastics Institute	Washington	DC	container manufacturer	\$250.00	1
			<b>TOTAL</b>	<b>\$279747.00</b>	

\* \$13,334.00 was "in-kind"

22X

**Contributors to Mercer Citizens for Recycling: Grand Total \$ 528,681.66**

**IN STATE**

<b>Contributors</b>	<b>Town</b>	<b>State</b>	<b>Type</b>	<b>Amount</b>	<b>Contributions</b>
NJ Soft Drink Association	Westfield	NJ	beverage association	\$70000.00	3
Wakefern	Elizabeth	NJ	food store	\$20000.33	2
Supermarket General Corporation	Woodbridge	NJ	food store	\$20000.33	2
Foodtown	Edison	NJ	food store	\$20000.00	1
Fedway Associates, Inc.	Kearny	NJ	liquor distributor	\$10000.00	2
Jaydor Corporation	Millburn	NJ	liquor distributor	\$10000.00	2
Gallo Wine Sales of NJ	Elizabeth	NJ	wine manufacturer	\$10000.00	2
Reitman Industries	West Caldwell	NJ	liquor distributor	\$10000.00	2
Great Atlantic & Pacific Tea Co.	Montvale	NJ	food store	\$6667.00	1
Grand Union	Wayne	NJ	food store	\$6667.00	1
FA Distributing Co.	Bayonne	NJ	beer distributor	\$5000.00	1
Merchants Wine and Liquor Co	Bayonne	NJ	Unknown	\$5000.00	1
Gold Star Liquors	Clifton	NJ	liquor distributor	\$2500.00	1
World of Liquor	Elizabeth	NJ	Unknown	\$2000.00	1
Paterson Fairlawn SuperSaver Liquors	Paterson	NJ	Unknown	\$750.00	1
High Grade Beverage	North Brunswick	NJ	beer distributor	\$750.00	1
Crown Beer Distributors, Inc	Wall	NJ	beer distributor	\$750.00	1
Fearless Beverage Co.	Union	NJ	beer distributor	\$750.00	1
Kristen Distributors	Elizabeth	NJ	beer distributor	\$750.00	1
Konrad Beer Distributing	Depford	NJ	beer distributor	\$750.00	1
Harrison Beverage Co	Pleasantville	NJ	beer distributor	\$750.00	1
Shore Point Distributing	Little Silver	NJ	beer distributor	\$400.00	1
South Jersey Distributing Co	Pleasantville	NJ	beer distributor	\$375.00	1
Nash Distributors	Carlstadt	NJ	beer distributor	\$375.00	1
Kramer Beverage Co.	Pleasantville	NJ	beer distributor	\$375.00	1
Kohler Distributor Co	Hawthorne	NJ	beer distributor	\$375.00	1
LA Piccirillo Inc	Newark	NJ	beer distributor	\$375.00	1
Shore Beverage Co.	Ocean	NJ	beer distributor	\$375.00	1
Trentacoste Brothers Inc	Burlington	NJ	beer distributor	\$375.00	1

**TOTAL**

**\$206109.66**

23X

**Contributors to Mercer Citizens for Recycling: Grand Total \$ 528,681.66**

**MERCER COUNTY**

<b>Contributors</b>	<b>Town</b>	<b>State</b>	<b>Type</b>	<b>Amount</b>	<b>Contributions</b>
Ritchie & Page	Trenton	NJ	beer distributor	\$12825.00	2
NJ Milk Industry Association, Inc.	Trenton	NJ	beverage association	\$10000.00	1
The Baxter Group	Trenton	NJ	Unknown	\$10000.00	2
Royal Distributors & Importers	Trenton	NJ	beer distributor	\$10000.00	2
			<b>TOTAL</b>	<b>\$42825.00</b>	

24X

THE LEAGUE  
OF WOMEN VOTERS  
OF NEW JERSEY



TESTIMONY BEFORE THE SENATE ENERGY AND ENVIRONMENTAL COMMITTEE  
RE: SUGGESTIONS FOR STATEWIDE SOLID WASTE MANAGEMENT  
REFORMS TO CONTROL THE ENVIRONMENTAL AND ECONOMIC  
IMPACTS OF SOLID WASTE INCINERATION

By: Glorianne Robbi, Executive Director  
League of Women Voters of New Jersey  
June 1, 1989

The League of Women Voters of New Jersey is a non-partisan citizen education organization. It represents over 5,000 members in 80 local Leagues across the state. The League takes action on issues after thorough study and member agreement on positions.

The League has studied and reached a position on solid waste management in New Jersey. The League believes that strategies for managing our municipal solid waste stream should be implemented in the following order: 1) source reduction, 2) recycling; 3) waste-to-energy, and 4) landfill. It follows from this that no incinerator should be sized so large that the incentive to reduce waste or to increase recycling is lost. It may be wise to increase recycling goals from 25% to 35% or 40%, so that number will be subtracted from the waste stream in sizing the incinerator.

The League also believes that regional approaches to solid waste management, such as interdistrict agreements, should be encouraged. DEP can be the lead agency to foster interdistrict agreements, helping to negotiate between counties. However, the DEP should not force the counties by limiting each to either an incinerator or a landfill. Such an inflexible provision may bring great difficulties in the future to some counties.

In encouraging interdistrict agreements, the League cautions against too large an incinerator for the sake of cooperation between counties. An incinerator that is oversized may create traffic problems for the host community. In addition, if a shutdown occurs at the incinerator, the problem may be more severe with the increase in size.

The ability of the DEP to do a needs assessment for incinerators is already embodied in the Solid Waste Management Act. DEP has the right to review the county plans. It can reject an incinerator that is too large. In addition, DEP reviews all permitting procedures including the environmental and health impact statements. If these are lacking, the DEP should make sure they are reviewed. The problem is more in enforcement of the requirements than in the need for new regulations.

League of Women Voters of New Jersey  
Testimony before the Senate Energy and  
Environment Committee--June 1, 1989  
Page 2

Certainly, batteries, tires and other contributors to air pollution and toxic ash should be removed before the waste is burned. However, amending the Mandatory Recycling Act to include these materials will not guarantee that they will be separated out. The Mandatory Recycling Act exempts from separation any materials that have no market for recycling. Therefore, if a market for a material such as batteries does not exist, they will go to the incinerator. A better way to keep these sources of pollution from the waste stream would be to place a deposit on them. Deposits have worked on items in other states. For instance, the only meaningful separation of plastic soda bottles occurs in states which place a deposit on them.

We hope this committee will carefully examine the criteria and options as it considers the reforms necessary to insure reasonable and efficient solid waste management in New Jersey.

SCOTT LAIDLAW  
BOB JOYCE  
MATT ROOT

INSTITUTE OF RESOURCE RECOVERY  
AN AFFILIATE OF THE  
NATIONAL SOLID WASTES MANAGEMENT ASSOCIATION  
TESTIMONY  
SENATE ENERGY AND ENVIRONMENT COMMITTEE  
THURSDAY, JUNE 1, 1989

The Institute of Resource Recovery, an affiliate of the National Solid Wastes Management Association, is composed of waste services firms specializing in recovering energy and materials from trash while reducing its volume through combustion. Member companies include American Energy Corp., American Ref-Fuel Company, Blount Energy Resource Corp., Combustion Engineering Resource Recovery Services, Ogden Martin Systems, Inc. and Westinghouse.

The Institute of Resource Recovery hereby respectfully submits its testimony on the suggested state-wide solid waste management reforms and urges adoption of these recommendations in any forthcoming legislation.

1. CAP ON NUMBER OF PERMITTED RESOURCE RECOVERY FACILITIES IN THE STATE

Response--Certain regional consolidation may be beneficial. The imposition of an artificial cap on the number of resource recovery facilities that may be permitted in New Jersey, however, would be a step in the wrong direction. The State's solid waste management plan requires that each county shall make a determination of the proper disposal and processing of solid waste generated within its borders. Also, this same state-wide solid waste management plan includes a concept of regionalization. Instead of imposing a cap, the NJDEP needs to re-emphasize support for the counties in their solid waste planning process. Additionally, the NJDEP should facilitate discussions among the various counties which are interested in pursuing a regional approach to solving the solid waste disposal crisis.

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PAGE TWO

Also, it is noted that resource recovery facilities can't exceed an 80 MW (approximately 3000 TPD) cap or they will lose the protection extended by the Public Utilities Regulatory Policy Act of 1978 (PURPA) of their electrical power sales contracts and the resulting power revenues which reduce disposal cost. Therefore, by putting a cap on the number of resource recovery facilities which may be permitted in the State, you are also capping the total processing capability of this waste disposal alternative. Such an artificial constraint ignores population growth in New Jersey and the corresponding increase in trash requiring disposal.

2. CAP ON NUMBER OF TONS OF SOLID WASTE THAT MAY BE BURNED IN THE STATE

Response-- We need to control the amount of emissions, not the number of resource recovery facilities. At issue here is the need to understand the cumulative impact the air emissions from the proposed resource recovery facilities would have on the environment of the State, in view of the fact that there are only 10-20 resource recovery facilities planned. This is contrasted with the approximately 13,600 combustion facilities (such as industrial plants, municipal plants, facility boilers, power generating facilities and commercial businesses) in New Jersey which have air permits. Rather than broadly looking at all emission sources in the hope of reducing pollutant levels, such a cap targets only the resource recovery industry. A better approach would be to conduct a cumulative study of all emission sources, not just resource recovery, with the commitment of investing available remedial dollars in controlling the source categories which have the highest health risks and provide the largest pollution reductions in the most cost-effective manner. This comprehensive study should consider the offsetting health effects of alternative disposal options. This comprehensive study should be done without the imposition of a cap on the number of resource recovery facilities which may be permitted in the State, or the imposition of a cap on the number of tons of solid waste which may be burned in the State, for any such focus is clearly too limited. 28x

3. PROHIBITION FROM ISSUING PERMITS FOR A RESOURCE RECOVERY FACILITY  
AND AN ASH RESIDUE LANDFILL IN THE SAME COUNTY

Response--The thrust of this question is directed to the regionalization concept. Although this type of a constraint makes sense in certain northeast portions of the State where land is scarce and siting decisions have been very difficult, the imposition of this type of constraint state-wide would preclude those counties, which have both the political resolve and the geography, from implementing a completely integrated in-county solution. Again, the NJDEP should be required to facilitate discussions between those counties which wish to pursue a regionalization concept. The NJDEP, in the extreme case, could use its considerable powers to resolve siting disputes and other tough issues related to the solid waste disposal crisis.

4. NJDEP TO DEVELOP FACILITY SIZING METHODOLOGY TO BE USED  
STATE-WIDE

Response--This question is a restatement of the regionalization question and assumes that the NJDEP can do a better job than the counties in planning their land use. In response to question 1, it is suggested that the NJDEP should facilitate regional plants where counties find that approach logical or where inaction exists at the county level. Currently, the sizing of resource recovery facilities is based on the following types of information:

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- o Past and current weighing studies
- o Landfill solid waste disposal records
- o Information voluntarily submitted by a county's haulers, vendors and consultants who are experienced in these matters
- o Detailed discussions with the counties and their independent engineers
- o Population growth
- o Increasing trash generation rates
- o Recycling goals
- o Demographics of a particular county along with its commercial and industrial business base
- o Mutual interests of neighboring counties
- o Typical rule-of-thumb guidelines taking into account the above information.

Although the art of resource recovery facility sizing is not precise, it is based on sound engineering judgements which take into account projected growths in population, solid waste generation, and recycling efforts.

Also, it must be noted that the current permitting process for resource recovery facilities in the State includes detailed facility sizing information that is developed and reviewed with the NJDEP. This includes the Environmental Health and Impact Statement which is required to be submitted on a project at the initiation of its permitting effort. Therefore, a "Needs Assessment" for each proposed incinerator would be completely redundant to the information already generated and upon which the facility's permits have been based.

5. SINGLE-COUNTY VERSUS REGIONAL RESOURCE RECOVERY FACILITY CONCEPT

Response--The process of building a resource recovery facility in New Jersey today is already a very complex and detailed process. Both the county and the selected resource recovery vendor expend great amounts of time and effort in negotiating Service Agreements, arranging for the financing, permitting and constructing of these facilities, as well as dealing with local and State government officials and regulatory entities. The process described above has been applied to single-county resource recovery facilities. To involve additional counties in this process on a regional facility, without direct support of the NJDEP with policy to resolve any road block (e.g., siting, host fees) issues, would make an already difficult process impossible.

Direct NJDEP support where the regionalization concept is feasible makes the most sense. Without such support, the regionalization concept will continue to remain just that, a concept.

6. ON-SITE PRESENCE OF A TRAINED STATE OFFICIAL AT EACH RESOURCE RECOVERY FACILITY

Response--Regarding the involvement of the NJDEP with the operations of resource recovery facilities, current regulations and permitting requirements are more than adequate and already have the following aspects:

- o Continuous monitoring of a plant's air emissions and key operating parameters with capability for round-the-clock telemetry of such information to the NJDEP's offices in Trenton.

- o Provision of office space, with access to computer information and emissions monitors to provide real time operating information, to the visiting State officials.
  
- o Permit conditions governing key operating parameters, including shut-down criteria.
  
- o Regular written reporting of operating information.

In that the current program includes both continuous on-line emissions monitoring and the ability of a State official to make periodic inspections in any facility, at any time, the round-the-clock presence of a trained State official would be costly and would not benefit the public unless a chronic pattern of violations is demonstrated. Reasonable time durations need to be provided in the event of a permit excursion so that the facility operator can find and correct the problem. The facility's controls are designed to permit such correction by the facility's trained operators. The arbitrary shut-down of the facility would result in less on-stream processing time of a critical service and would create additional environmental impacts. The establishment of these criteria will allow the resource recovery facility's operators to correct the plant's operation to maintain compliance should any violations occur. The continuous emissions monitoring being provided by each plant will allow the NJDEP to readily audit whether or not a permit violation has taken place.

7. NJDEP OPERATION OF RESOURCE RECOVERY FACILITIES PREVIOUSLY  
BEING OPERATED IMPROPERLY

Response--The Service Agreement between a resource recovery vendor and the waste disposal district for each of these in-state facilities clearly obligates the vendor to operate the plant in compliance with the facility's permits, local state and federal laws and regulations. The NJDEP is in the process of issuing a license procedure to ensure that only trained and qualified personnel operate these facilities. Each district (e.g., a County or a MUA) has an independent engineer who, along with the district staff and NJDEP, monitors the plant's operation and conformance with its permits, State laws and regulations. The penalties associated with a failure on the part of the vendor to honor its performance obligations under the Service Agreement variously include ultimate termination, large financial penalties and rights for the district to purchase and operate the facility. The NJDEP's role should remain in issuance and enforcement of licenses, permits and regulations that assure proper design, trained personnel and waste flow enforcement.

8. SHOULD THE FINES ASSESSED BY THE NJDEP FOR THE IMPROPER OPERATION  
OF A RESOURCE RECOVERY FACILITY BE THE RESPONSIBILITY OF THE PRIVATE  
OPERATOR?

Response--Yes, with respect to improper facility operation. The key words here are "improper operation". It must be remembered that these resource recovery facilities are simply processing the solid waste that is being provided to them by the contributing communities.

The operator of a resource recovery facility should be held responsible to the NJDEP for penalties/fines if the exceedence of a plant's permitted emission criteria was the operator's fault for not operating the facility in accordance with the permits. The facilities are designed for the safe disposal of a wide range of materials specified as acceptable waste in the permits and service agreements. Should a permit violation occur which cannot be directly attributed to the fault of the operator in terms of maintaining proper temperatures, maintenance or operating parameters at the plant, then the associated fines/penalties levied by the NJDEP should be paid by the ratepayers of the district being provided the service and the district should step up enforcement of the delivery of acceptable waste. The cost to the ratepayers can be mitigated by determining which hauler or community provided the waste that created the permit violation and once determined, then acting against that entity.

9. NJDEP TO PURCHASE ACCESS TO LANDFILL SPACE OR OTHER SUITABLE DISPOSAL CAPACITY LOCATED OUT-OF-STATE AS BACK-UP

Response--The Service Agreement between a resource recovery vendor and the waste disposal district for each of these facilities already provides for landfill capacity to handle ash residue, by-pass waste, and non-processibles. This requirement is included as part of a facility's permitting effort with the NJDEP. The consideration of having the NJDEP also provide this capability seems redundant and, therefore, unnecessary. Also, this question implies that the cost of this back-up arrangement with the NJDEP should be handled as a non-pass-through assessment to each resource recovery vendor. This concept is unfair and penalizes those vendors who have been pro-active by working closely with their districts to provide for resource recovery service and necessary contingency disposal planning. A further concern to the resource recovery vendor is the selection of a landfill without benefit of the protection of the division of risk as provided for in the particular service agreement.

10. SHOULD IT BE STATE POLICY THAT ALL SOLID WASTE FACILITIES BE REGULATED AS PUBLIC UTILITIES BY THE BPU?

Response--Under current New Jersey law, resource recovery facilities are regarded as public utilities. The McEnroe process provides an option for the waste disposal district to elect either a rate base, rate of return approach or a one-time review and approval by the NJDEP, BPU and the DCA of the Service Agreement and related contracts. If the intent of this question is to seek the elimination of the latter alternative, then such a result would hinder the further development of resource recovery facilities in the State, and the potential list of qualified vendors willing to participate in that process will be reduced.

11. RATE AVERAGING AND NJDEP/BPU FLOW CONTROL OF SPOT WASTE

Response--Obviously, the concept of rate averaging is very complex. These complexities include:

- o Differences in the effectiveness of the State's integrated solid waste management plan on a county-by-county basis because of internal demographics and differences in the prioritization of different solid waste disposal alternatives practiced on a county-by-county basis.
- o Differences in timing, facility size, regionalization and location of ash disposal create different economic solutions for each waste disposal district;
- o Differences in the quality of the waste stream on a county-by-county basis and at different times of the year;
- o Differences in Service Agreements providing for the sharing of risk and revenues generated by these particular facilities; and

- o Political differences between neighboring counties.

Given these complexities, it is difficult to envision the formulation of a regional rate averaging policy which would be fair to the residents of a county, the county's administration and the selected resource recovery vendor without having certain counties subsidizing others. For these reasons, the resource recovery industry believes rate averaging should not be imposed.

In terms of the second part of this question dealing with spot market flow control by the NJDEP/BPU, the following comments are provided.

Currently, on the issue of inter-county waste flow, the State's solid waste management plan provides that these flows can only take place once an inter-district agreement is in place. Obtaining an inter-district agreement is a time consuming process, has political overtones, and does not allow for timely reaction to the immediate needs of a plant for spot waste (ie., "topping-off tonnage"). This tonnage is needed not only to meet the county's minimum obligation but also to allow for full utilization of the plant's capacity and thus reduce the cost of services to the county. The current restrictive inter-district agreement approach needs to be modified to allow these flows to occur. Instead of having both the NJDEP and BPU involved in the daily direction of waste flows to any resource recovery facility experiencing waste shortfalls, the vendor and the county, consistent with their agreements, should be responsible for mitigating such shortfalls provided the state-wide flow control prioritization set forth below is followed:

- o All municipal solid waste from within a county shall be processed in that county's designated resource recovery facility;

- o After all the county's municipal solid waste has been perocessed, and if additional waste is still needed, then preference should be given to by-pass waste resulting from scheduled or unscheduled outages of a neighboring county's resource recovery facility;
  
- o If additional waste is still needed, then municipal solid waste from other counties from within the state shall be processed; and
  
- o If additional waste is still needed, and having satisfied the above constraints, then the vendor/operator shall have the right to bring in other waste.

Again, both the NJDEP and BPU need to be involved up front in establishing a revised state-wide policy on this issue. However, once the policy has been determined, then both the BPU and NJDEP need to give the vendors and their host districts the freedom, consistent with such policy, to deal with the day-to-day operating plant concerns and spot market municipal solid waste needs.

12. LONG TERM COUNTY CONTRACT WITH OUT-OF-STATE RESOURCE RECOVERY FACILITIES WITH CONTINGENCY PLANNING

Response--The key aspect of this question is the issue of New Jersey's self-sufficiency by 1992. As a general principle, the self-sufficiency goal is very commendable. However, a county should not be precluded from entering into a long term contractual relationship with an out-of-state resource recovery facility if that particular business arrangement makes the most sense when contrasted with other viable alternatives. As part of the current permitting program, the vendors/operators presently are required to provide evidence of a contractual commitment for either a back-up landfill or some other disposal capability.

13. REGIONALIZATION CONCEPT

Response--As a general concept, regional solid waste disposal planning makes sense. However, having the NJDEP establishing solid waste disposal regions and then directing counties within each region to select the type of facility (e.g., a resource recovery facility, a residual ash landfill, or a back-up landfill) to be developed within that county seems very heavy handed. That approach would penalize those counties which have been very pro-active in studying their solid waste disposal options, have made the tough decisions, and are well along in the procurement, permitting or construction phases. Clearly, grandfathering provisions would need to be established. In terms of contingency disposal options, current NJDEP's regulations and the permitting procedure deal with this requirement. Perhaps the current regulations on this issue need to be studied and, where needed, strengthened. As mentioned previously, the NJDEP needs to act as a facilitator between those counties which are mutually willing to pursue a regionalization concept. Only in extreme cases should the NJDEP be required to step in and direct the actions of those counties which are delinquent in the selection of a course of action from among their solid waste disposal options.

14. FRONT-END SOURCE SEPARATION COUPLED WITH RESOURCE RECOVERY FACILITIES

Response--Currently, the sizing of a resource recovery facility takes into account many factors, including the provision of meeting the State's mandated 25% recycling criteria. It is expected that a number of non-incineration technologies and processes will be required to meet this goal, much less any higher goal. If a key facet of New Jersey's integrated solid waste management program (ie., resource recovery) is constrained, then the other parts of the State's program are put under more stress. The end result may be a less efficient, less effective and more costly overall program.

Resource recovery and recycling work together because recycling can eliminate 20 to 25% of the waste disposal district's waste including many products (PVC bottles, metal cans, scrap iron, batteries, other metals) which should not be burned. The fact is that resource recovery facilities complement recycling programs, and the two together are key components of the State's integrated four-part solid waste management program.

15. INCREASE THE RECYCLING GOAL TO 40% AND THE INCORPORATION OF THIS NEW TARGET INTO THE PLANNING OF RESOURCE RECOVERY FACILITIES NOT YET UNDER CONSTRUCTION

Response--See our response to question 14. Also, in terms of grandfathering provisions, if a particular resource recovery project has achieved most or all of its requisite construction permits, then, at the option of the waste disposal district, construction of the facility should be allowed to commence and should not be stopped to incorporate an increased recycling goal. The main rationale for this position is that the solid waste crisis facing the State today is real and immediate. Any further delay in the implementation of these planned resource recovery facilities will only serve to exacerbate an already serious solid waste disposal crisis and will result in increasing the cost of providing solid waste disposal service to the residents of New Jersey.

16. INCREASE THE ITEMS IN THE STATE TO BE RECYCLED THUS MITIGATING AIR EMISSION OR RESIDUE ASH PROBLEMS

Response--Yes. Generally speaking, those items in the combustible solid waste stream which could contribute to either air emission or residue ash problems should be identified and removed from the solid waste stream before they enter the facility, provided a suitable alternate disposal is provided. However, a concern exists with the use of the phrase "all items".

PAGE FOURTEEN

When solid waste is burned, gases and particulates result and these are controlled to prevent air pollution. Modern resource recovery plants are designed to meet this challenge. As long as the capabilities of existing pollution control technologies are taken into account when selecting the objectionable materials to be removed from the solid waste stream, we support the concept of amending the State-wide Mandatory Recycling Act to effect this change.

HUDSON COUNTY IMPROVEMENT AUTHORITY

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ALBERT A. FIORE, EXECUTIVE DIRECTOR  
FRANK T. KOSEROWSKI, GENERAL COUNSEL

TO: Members of the Senate Energy and Environmental Committee  
AT: State House Annex  
Trenton, New Jersey  
RE: The Suggestions for Statewide Solid Waste Management  
Reforms Designed to control the environmental and  
economic impact of Solid Waste Incinerators  
DATE: May 31, 1989  
FROM: Al Fiore  
Hudson County Improvement Authority and  
The County Improvement Authorities Association

Our concerns about the vitality and prospects for success of the State Solid Waste Management Plan are as deep as yours. ~~\_\_\_\_\_~~ We in Hudson County, as well as many of our peer counties, have done more than talk about potential solutions. We have already expended millions in planning and other pre-construction activities. And more, we have individually committed hundreds of millions towards the construction of total solid waste recovery systems - embracing incinerators, ash-residue landfills, recycling and other waste handling centers. In total, many billions have been committed by the counties who have "Bitten the Bullet" of the State's mandate.

In general, I implore you, on behalf of all of the counties that are so committed, not to penalize us nor subject us to unnecessary financial penalties and damages, while you seek

a "better" solution for those counties who have not yet begun to shoulder their mandated burdens.

I argue that a cap on incinerators is not necessary, given the advanced air pollution control technology available to be employed for emission reduction. At any rate, the public's safeguard is that each applicant must prove its viability after taking into consideration the previously permitted Resource Recovery facilities.

RE: Item # 4. "Needs Assessment" as to sizing has been done effectively. The system is failing because of migrating waste flowing freely to cheaper destinations. The solution is not more study, nor achieving greater predictive powers. It is simply to appropriate sufficient enforcement monies to do the job. The present budget is woefully inadequate. The penalties are laughed off as petty cash expenditures by the violators. Put harsh teeth, including confiscation, into state and local enforcement and the need for more studying will dissipate.

RE: Item # 11. Rate averaging will not achieve the desired purposes. Its a fallacious premise because New Jersey is not a separate planet. Even after you have fashioned an "equitable" averaged rate, migratory waste will continue to flow into and out of the state. It will always come in from New York, where the costs are high, and flow to Pennsylvania and points west and south, where the costs are lower. Unless, you employ those aforementioned enforcement tools, this will always be the case.

RE: Item # 14. At this time, and probably for the next decade, alternate waste-processing technologies can not and

will not reduce waste in the volumes required. Pilot projects in very small communities have achieved fairly high waste reduction rates. But, they have not been proven for urban areas - which abound in New Jersey. The crisis is here -- we really can't wait for the promise to materialize. Unless, of course, somebody wants to tackle the political realities of mandating the siting, procurement and preparation of several dozen landfills in the state, immediately.

RE: Item # 15. Let's be realistic about recycling goals. 40% of what? Presently, the State Office of Recycling does not account in its tonnage grants to communities for industrial recycling. Rather, it should encourage industrial and commercial waste exchanges and the recycling of material that should not be burned, nor fill-up our remaining landfill space.

We applaud your concern and encourage your efforts. Please accept one suggestion, though. Please target means and resources for effectuating the current mandated solutions more quickly. And, if you make changes, inculcate faster systems for solution. It takes too many years to willingly comply with your mandates. And, of course, time means money, even to the taxpayers of New Jersey.



**New Jersey for A Clean Tomorrow**

**NJ ACT SUPPORTERS**

- Associated General Contractors – New Jersey Chapter
- Chemical Industry Council of New Jersey
- Construction and General Laborers' Local 172 of South Jersey
- Consulting Engineers Council
- Heavy and General Construction Laborers' Local 472
- International Union of Operating Engineers Local 825
- Land Improvement Contractors Association
- Monmouth Ocean Development Council
- National Electrical Contractors Association
- National Solid Wastes Management Association – New Jersey Chapter
- New Jersey Alliance for Action
- New Jersey Asphalt Pavement Association
- New Jersey Association of Counties
- New Jersey Association of Realtors
- New Jersey Builders Association
- New Jersey Business & Industry Association
- New Jersey Federation of Planning Officials
- New Jersey Food Council
- New Jersey Industrial Development Association
- New Jersey Institute of Technology
- New Jersey Section – American Society of Civil Engineers
- New Jersey Society for Environmental Economic Development
- New Jersey Society of Municipal Engineers
- New Jersey Society of Professional Engineers
- New Jersey State Chamber of Commerce
- Southern New Jersey Development Council
- Waste Management Association of New Jersey

**TESTIMONY OF**

**PHILIP K. BEACHEM**

**SECRETARY**

**NEW JERSEY FOR A CLEAN TOMORROW**

**BEFORE THE**

**SENATE ENERGY AND ENVIRONMENT COMMITTEE**

**DANIEL J. DALTON, CHAIRMAN**

**JUNE 1, 1989**

**TRENTON, NEW JERSEY**

Chairman Dalton and Members of this Committee:

My name is Philip Beachem and I am here today as Secretary of New Jersey for A Clean Tomorrow. New Jersey ACT is a coalition formed for the purpose of supporting the implementation of comprehensive waste management in the State of New Jersey. Our goal is to inform and educate residents and public officials of this state about the solid waste crisis and its solution--a multi-faceted plan which includes source reduction of waste, recycling of waste for reuse, resource recovery incineration and the use of modern, lined landfills.

We are pleased to appear before you today to provide testimony on the State's long-term solid waste management strategy.

I would like to preface my testimony by stating the obvious. New Jersey faces an uncertain future in terms of managing and disposing of the 11 million tons of solid waste generated within its borders each year. There is no guarantee that we can continue to ship more than 50% of our waste to out-of-state disposal facilities. In fact, legislation is in place in Pennsylvania and Ohio which could bar New Jersey from sending trash to those states. So, my first point is that the goal of any long-term waste management plan is and should continue to be self-sufficiency in waste management for the State of New Jersey.

New Jersey ACT strongly believes that the only way to reach self-sufficiency is to rely on each and every aspect of the four-pronged approach I've already mentioned.

I would like to address each of the components of comprehensive waste management and the role each must play in ending the crisis that we face.

The first component of proper and responsible waste management is source reduction of waste. I was disheartened that this facet wasn't even one of the issues addressed by this committee in preparation for this hearing, yet this is the most logical starting point for controlling our waste stream.

Through proper education of our state's residents, and with the help of leaders from business and industry, we can reduce the amount of waste that is produced and requires management or disposal of any kind. Reduce the amount of waste that we produce, currently in excess of 11 million tons per year, or at least keep that total from increasing.

This can be accomplished through better and more efficient packaging on the part of business and industry. In fact, it may seem trivial, but the written testimony which I will enter into the record of this hearing is printed on both sides of the page, reducing the total quantity of paper consumed. That's a very simple and effective example of reducing waste at the source.

I want to commend efforts of groups like the League of Women Voters of New Jersey for their leading role in source reduction and pledge the assistance of

New Jersey ACT to their efforts and encourage this committee to pay special attention to their testimony on this topic.

The second step in proper waste management is recycling--the separation of materials like glass, aluminum, paper and plastic from the waste stream to be reused or utilized in the manufacturing process of new materials and products. Recycling not only reduces the amount of waste which requires disposal, it also preserves natural resources used in the production of products from virgin materials.

New Jersey recycles almost 18% of its waste stream, or nearly 2 million tons of waste per year. The more trash that we recycle and reuse, the less waste there is that will need permanent disposal. But, we must be realistic in our goal.

Recent statewide research conducted by New Jersey ACT shows that a majority of New Jerseyans believe that we should reach our goal of 25% recycling and strive for more--up to fifty percent. But our survey also showed that people realize that recycling alone is not the sole answer to dealing with our waste. Nor, are we capable of reaching a 50% mandate overnight.

Everyone needs to participate if recycling is to be successful in New Jersey. Again, as a small example of doing one's part to help manage our waste, the testimony which I will hand in is on recycled paper, as are most of the materials that we distribute for New Jersey ACT. Additionally, at a regular meeting of New Jersey ACT's members not to far from here this morning we

are focusing on the issue of recycling for businesses. The featured presenters are the New Jersey DEP and Ron Hutchinson of Bell Communications Research. Bellcore is a fine example of how business can reduce expenses and waste while protecting the environment through a concerted recycling effort.

The third component of responsible waste management is resource recovery incineration. As one component in an overall waste management program, resource recovery incineration works together with source reduction and recycling by reducing the volume of waste that remains by as much as 90% by volume.

Resource recovery incineration is the only proven technology available today that is capable of dealing with the massive quantities of trash that are generated by the residents and businesses of this state. As other technologies emerge, are studied and prove themselves, they too can be incorporated as part of an overall plan. But, there is no other technology available today that will allow us to reach the goal of self-sufficiency.

The question that we must ask ourselves isn't whether there's a role for incineration. There is!

But, the largest obstacle for the implementation of a comprehensive solid waste management program is the perception that facilities like recycling centers and resource recovery incinerators are filthy, deadly facilities which will destroy the environment and ruin health. The greatest need in this State is education of residents and public officials that this is not the case.

This is the goal of New Jersey ACT, to encourage debate on the issues of solid waste management in an effort to educate all people of New Jersey and to address the legitimate concerns that rational people have about the technology and its operation. We do not support specific sites for facilities, nor do we only support incineration as the sole answer to the problem that we face. The truth is that resource recovery incineration must play a part in our waste management program.

New Jersey ACT supports efforts to establish training programs for the operators of resource recovery facilities to help insure the proper maintenance and operation of these facilities. We also applaud the efforts of county and state officials to insure that these facilities will be environmentally safe and acceptable and will operate within permit parameters.

Additionally, New Jersey ACT has established an independent Technical Advisory Panel consisting of research scientists and medical specialists in the areas of ash management, emissions and risk assessment. This panel is being directed by Dr. Richard Magee of the New Jersey Institute of Technology. The members of this panel include Dr. Michael Gallo of UMDNJ, Dr. David Kosson of Rutgers and Edwin Holstein, M.D. of Environmental Health Associates. As this panel develops materials on these and other issues, we will gladly share them with this committee and with the public.

In summary, I would like to state that our opinion research, conducted this past February 1st through the 15th, shows that New Jerseyans, when presented with a balanced debate on the subject of solid waste management,

support the implementation of a comprehensive waste management program that includes intensive recycling and resource recovery incineration.

New Jersey ACT will make its resources available to the State and County governments in order to see this program implemented.

Finally, I would like to stress that New Jersey ACT is adamantly opposed to Assembly Bill A.4105. A moratorium that would, in effect, bring viable, responsible solutions to our waste crisis to a complete stop is ill-timed and ill-advised.

This bill contradicts the words and actions of a state legislature that has spent a significant number of years of effort to protect the environmental and economic health of the residents and municipalities across the State of New Jersey. And, it's that same legislature that had to consider a bill to bail out local communities because of the incredible increase in costs of disposal in a short period of time.

Mr. Chairman, we do not have the luxury of putting everything "on hold." We face a very real crisis today. So, I suggest that we in New Jersey work together to move forward with technology that is available, proven and improving every day. We can not afford to take a step backwards, as this will result in a severe crisis, both economically and environmentally.

Thank you.



# New Jersey Environmental Lobby

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Testimony before  
Senate Energy and Environment Committee  
June 1, 1989

Good morning. I am Marie A. Curtis, legislative agent for the New Jersey Environmental Lobby. We are here to offer some ideas, not easy answers. No one likes the idea of burning waste, thus generating ash and other pollutants, yet can we avoid incineration in New Jersey? We think not.

Studies have indicated that recycling waste in our state will at best reduce the waste stream by 25 to 35%. Source reduction such as use of minimal packaging, reusable containers, composting and other such efforts will still only reduce the stream by 10 to perhaps 25% at most. Added together, we still, under optimum conditions, leave about half our waste to be disposed of in landfills or by other means.

Today about half of New Jersey's solid waste is being trucked out of state to landfills in such places as Pennsylvania. We are dependent on the good will of these other states for the continued export of this trash. How long will that good will continue? We don't know, but it will not last forever, and then what other disposal means is left? - Incineration. We really won't have much choice.

We can, however, minimize the risks and undesirable side effects most feared by the public. First and foremost should be consideration of regionalizing incinerator construction. A facility in every one of New Jersey's 21 counties is unrealistic, costly and unnecessary. We must next look to the byproducts of incineration. Essentially, bottom ash in an incinerator with a controlled "feed" is safe enough for normal landfill disposal. The fly ash trapped in the stacks is the more dangerous component and probably belongs in a toxic waste dumpsite. The amount of this residue, however, is quite small in relation to the amount of waste treated.

Furthermore, the fear most frequently expressed is that of dioxins being spewed forth into our atmosphere. In reality, of some 70 different dioxins that could be produced in nature, only a few are

dangerous. These worst cases are not produced in incinerators normally, according to Dr. Steven Ross, chemist and environmental investigator at Columbia University.

Another major question to be considered is which kind of incinerator to build. We hear a lot about 'resource recovery' and the conversion of garbage to energy. It sounds good, but we must consider the kind of energy produced and whether it is cost effective.

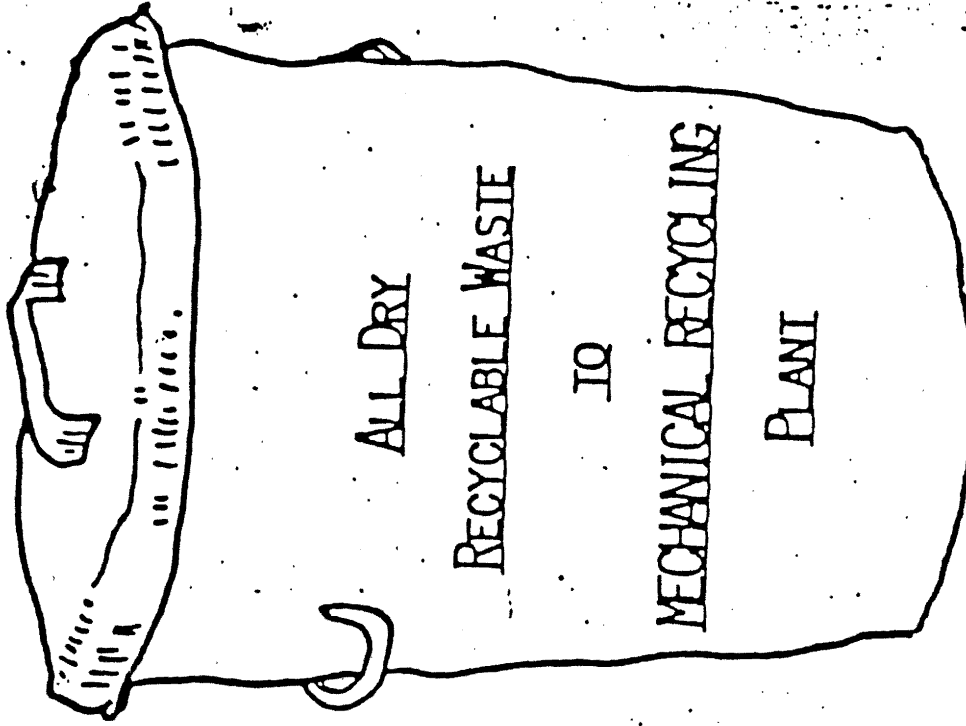
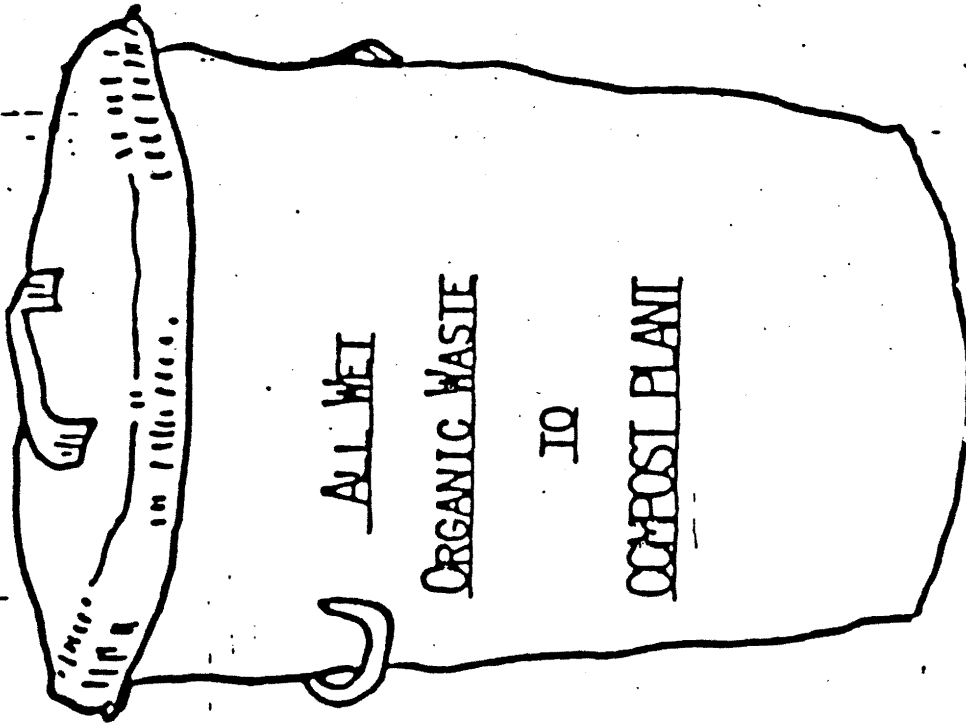
Incinerators that generate electricity as an end product are very costly and not one has yet paid back the added equipment costs required. A good example of this is the facility in Peekskill, N.Y., where they generate electricity at a cost of 9¢ a kilowatt hour and then sell it to Con-Edison for 6¢ a kilowatt hour - scarcely a plan designed to recoup the initial investment.

Other incinerators generate steam which can be piped to local utilities and there converted to electricity or other forms of energy. These latter have fared better financially. Steam generators in Montreal, Chicago and Saugus, Mass., to name a few, have already paid back the cost of their initial equipment.

Perhaps someday advanced technology, such as waste-eating microbes, will provide a better means of disposal, but until then New Jersey must be prepared to dispose of its solid waste within its own borders with the technology currently available. That will require, at least in the immediate future, a combination of measures that includes incineration. If these facilities must be used, then let us build fewer and safer ones with strict oversight and qualified personnel to run them. Let us also build cost effective facilities to ease the burden on the state's taxpayers. In other words, let's do it right!

Marie A. Curtis  
(201) 222-8675

A "SANE SOLUTION" FOR WASTE DISPOSAL



X 53

(PLUS REMOVAL OF HOUSEHOLD & COMMERCIAL HAZARDOUS WASTE)

LIFETIME RISKS OF FAMILIAR ACTIVITIES

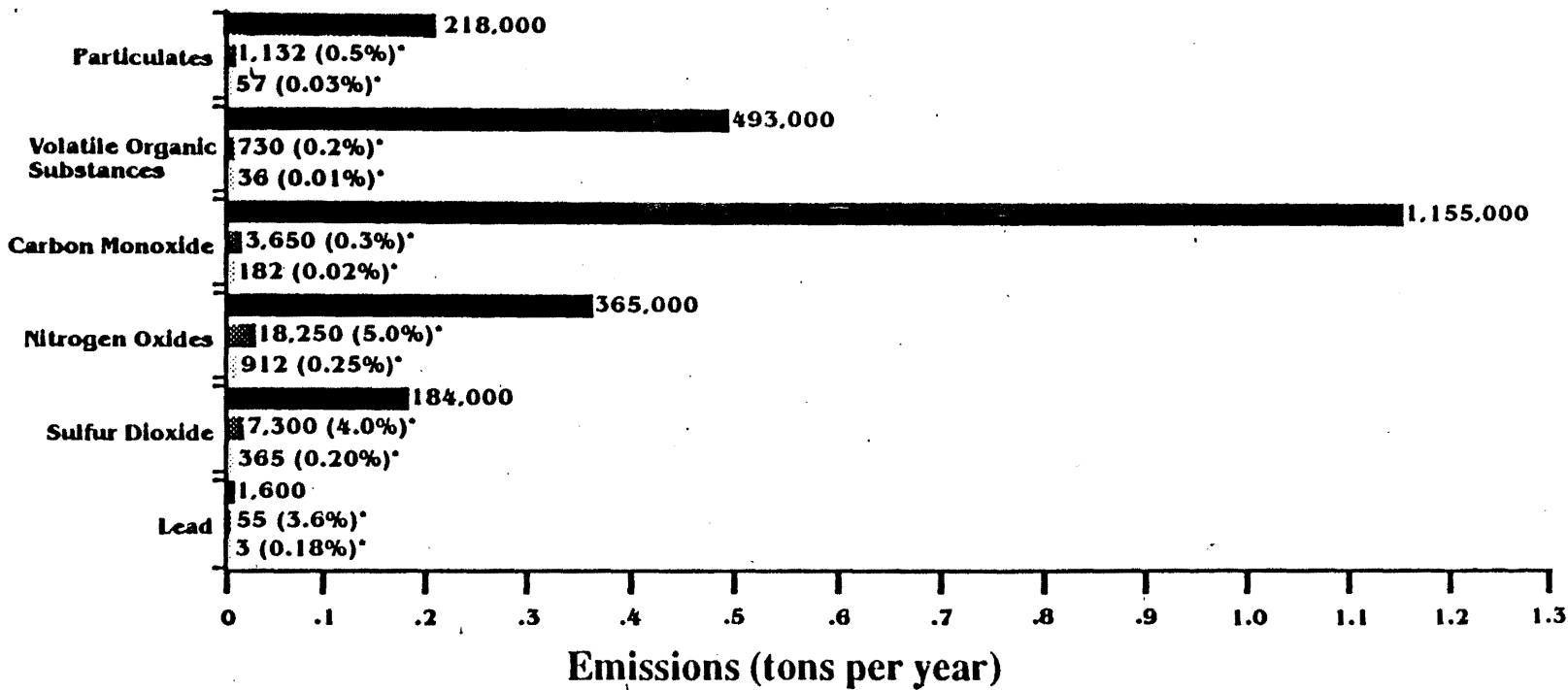
Peril	Lifetime (70-year) Risk per Million Population
Cigarette smoking	252,000
All cancers	196,000
Mining and quarrying	66,500
Construction	42,700
Mountain climbing	42,000
Agriculture	42,000
Police killed in line of duty	15,400
Air pollution (Eastern U.S.)	14,000
Motor vehicle accident (traveling)	13,900
Police killed in line of duty by felons	9,100
Home accidents	7,700
Service and government	7,000
Manufacturing	5,740
Frequent airline traveler	3,500
Pedestrian hit by motor vehicle	2,940
Alcohol, light drinker	1,400
Background radiation at sea level (excluding radon)	1,400
Peanut butter, four tablespoons per day	560
Electrocution	371
Tornado	42.0
Drinking water containing chloroform at maximum allowable EPA level	42.0
Lightning	35.0
Living near a WTE plant	1.00
Earthquake (Southern California)	1.00
Smoking 1.4 cigarettes	1.00
Drinking 0.5 liters of wine	1.00
Traveling by canoe six minutes	1.00
Traveling by bicycle 10 miles	1.00
Traveling by car 30 miles	1.00
Traveling by jet plane 1,000 miles (air crash)	1.00
Traveling by jet plane 6,000 miles (cancer from cosmic rays)	1.00
Drinking water containing trichloroethylene at maximum allowable EPA limit	0.140

Adapted from Health Risk Assessment for Air Emissions of Metals and Organic Compounds from the PERC Municipal Waste To Energy Facility, Charles T. Main, Inc., December 1985; and from Risk Assessment and Comparisons: An Introduction, by R. Wilson and E.A.C. Crouch, Science, April 17, 1987.

# emissions with state-wide total emissions

3

Annual 1985 state-wide emissions  
 Projected annual emissions from 20 resource recovery facilities burning a total of 20,000 tons of solid waste per day at maximum allowable rates. This is a maximum projection  
 Projected Annual Emissions from one Resource Recovery Facility Burning 1,000 Tons of Solid Waste per day.



\*Percent of 1985 state-wide total

55x

Overhead #4