





PUBLIC HEARING

before

SPECIAL COMMITTEE TO INVESTIGATE HAZARDOUS  
WASTE DISPOSAL AT MILITARY INSTITUTIONS

on

Potential Sources of Groundwater Contamination Posed by Hazardous  
Waste Disposal at the Lakehurst Naval Air Engineering Center

October 10, 1985  
Room 346  
State House Annex  
Trenton, New Jersey

MEMBERS OF COMMITTEE PRESENT:

Assemblywoman Marlene Lynch Ford, Chairwoman  
Assemblywoman Jacqueline Walker  
Assemblyman Jorge A. Rod  
Assemblywoman Barbara F. Kalik  
Assemblywoman Marie S. Muhler  
Assemblyman John T. Hendrickson, Jr.

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ALSO PRESENT:

Mark O. Smith  
Office of Legislative Services  
Aide, Special Committee to Investigate Hazardous  
Waste Disposal at Military Institutions

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**ASSEMBLYWOMAN MARLENE LYNCH FORD (Chairwoman):** I guess we should get started. I want to welcome you all here today, and wish you good morning.

As you know this Special Committee was created to investigate the hazardous waste dumping practices at military bases in the State. We are concerned about recent reports of hazardous dumps on military sites. We have heard that the Navy has dumped hazardous waste at its Lakehurst Base, that McGuire Air Force Base, for example, was the site of a toxic waste fire, and that other military installations within the State may also house various types of toxic waste cleanup problems.

This Committee will attempt to determine the severity of these sites, and the health threats, if any, they may pose to the people living at or near these sites. We will also focus on the impact that the dump sites have had on the groundwater and drinking water supply.

Along with finding the answers to these crucial questions of how these dump sites were permitted to occur and the extent of the environmental damage, if any, caused by them, we will look at what steps the Department of Environmental Protection has taken to clean up these sites, and what other State action may be necessary to protect water supplies and other environmental concerns and resources.

In future hearings we hope to determine the roles and responsibilities of the other agencies involved in this, including the military and the Federal Environmental Protection Agency.

I hope that today we will learn the status of the hazardous site at the Lakehurst Base, and also hear about DEP's activities in connection with this problem. At our next hearings, which are tentatively scheduled for the next two Thursdays, -- on October 17th and 24th -- we will meet first at the Officer's Hall in Lakehurst, and after that at a location to be announced, probably at a northern part of the State.

This hearing today is very important. It is really not intended to focus blame on anyone, but rather to develop the facts and information as we have heard -- and in some instances the information



we have heard is conflicting. And it is important that we have the type of public forum in which we can assure the public that what is being done is being done in a responsible fashion, and we can assure ourselves -- the State Representatives -- that the interests we are concerned about are being protected.

I know that the members of my Committee are pressed for time and still have a lot of questions about what is going on here, but there is one thing I want to do today and that is ask if you have an opening statement, that statement be provided to us to be included within the record. If you have come here with testimony and not with a written opening statement, we will leave the record open for a week, so that you can provide that to us. So, in other words, I ask that you summarize your opening statement or just allow us to get down to questions about the specifics.

What I would also like to do, in terms of procedure, is allow each Committee member to follow and pursue their line of questioning within particular areas and then go on to the next person.

Mr. Tyler--

ASSEMBLYWOMAN MUHLER: May I make a statement first?

ASSEMBLYWOMAN FORD: Well I would prefer--

ASSEMBLYWOMAN MUHLER: I think you should introduce the members--

ASSEMBLYWOMAN FORD: Oh, okay, sure.

ASSEMBLYWOMAN MUHLER: (continuing) --and let the public know who they are, and allow us to say something.

ASSEMBLYWOMAN FORD: Well, I would prefer that we not consume the hearing, Marie, with statements before that, and I would like to just get to Mr. Tyler.

ASSEMBLYWOMAN MUHLER: At organization, I do have what I consider an important comment to make, and I would like to be allowed to make that comment.

ASSEMBLYWOMAN FORD: Well then Marie, I am going to have to prevail upon the prerogative of the Chair, and ask that we all withhold our statements, because I honestly don't want to get into that. But I will take--

ASSEMBLYWOMAN MUHLER: Are you telling me you are refusing to allow me to make a comment at the meeting?

ASSEMBLYWOMAN FORD: I will take this opportunity to introduce the members of the Committee present here today. Starting at my right is my colleague in the Assembly from Ocean County, Jack Hendrickson, Marie Muhler from Monmouth County. And to my left, Jacqueline Walker from Monmouth County, Jorge Rod from Ocean County and Assemblywoman Barbara Kalik from Burlington County.

ASSEMBLYMAN HENDRICKSON: Madam Chair, if I may, Lakehurst is in my District and I find it very difficult to sit here with your ruling about Lakehurst, particularly when on August 30 Naval Air did have a public hearing, and very few of the legislators even appeared there. There were some of their representatives, but I think when Lakehurst has been so open--

ASSEMBLYWOMAN KALIK: Madam Chair, if Mr.--

ASSEMBLYWOMAN FORD: Mr. Hendrickson-- I think I can handle this.

ASSEMBLYWOMAN KALIK: If Mr. Hendrickson is going to make a statement, I want to make a statement.

ASSEMBLYWOMAN FORD: And that is exactly what I am trying to avoid.

ASSEMBLYWOMAN WALKER: I think we all would.

ASSEMBLYWOMAN FORD: I am chairing this meeting. I have full realization that we are all pressed for time and that we have a volume of questions that we would like to get to, and I am going to have to rule on that that none of us, including the people who are testifying are going to make opening statements. If you want to provide a written statement I will make that part of the record. I think it is more important that we get right to the questions.

ASSEMBLYWOMAN MUHLER: I think the organization of this Commission is extremely important, and I have a comment to make on that.

ASSEMBLYWOMAN FORD: And I think you are closely getting to be out of order, Mrs. Muhler, and I would ask that you allow me to run this hearing, as the appointed Chairperson, in the manner I feel is appropriate.



ASSEMBLYWOMAN MUHLER: In other words, you don't want us to participate? We are here as dressing?

ASSEMBLYWOMAN FORD: You are here to ask the questions that we have provided. That's the time, that is my ruling, and that is the way it is going to be.

Mr. Tyler.

**ASSISTANT COMMISSIONER GEORGE J. TYLER:** I would prefer -- if I understand the situation correctly that I am the only witness to appear today -- if you would indulge me for about ten minutes and allow me to at least summarize my statement.

ASSEMBLYWOMAN FORD: I will allow you to summarize your statement. I just wanted to avoid spending half an hour having a statement read to us.

ASST. COMMISSIONER TYLER: I won't take a half an hour, I assure you.

Good morning. My name is George Tyler, and I am the Assistant Commissioner for Environmental Management in the Department of Environmental Protection. I am pleased to be here today to offer testimony before this Special Committee to Investigate Hazardous Waste Disposal at Military Installations.

The Department welcomes this Special Committee's interest in our cleanup program. I think recent interest in our impact on Federal facilities was probably stirred, primarily, from discovery in early July of this year that an accident involving a nuclear warhead occurred at McGuire Air Force Base in the early 1960s. We don't think that incident was ever properly assessed or properly cleaned up. Having raised that kind of an issue, and having stirred the pot, so to speak, with respect to Federal facilities, we do welcome your inquiry and any help you can be to us in pursuing the situation.

Before I address the Lakehurst Air Engineering Center, I would like to make two very brief points so that I could ask you later to view any actions with respect to Lakehurst in the proper context. Those two points are:

1) We have a multi-faceted cleanup program in this State, which utilizes a great variety of enforcement tools that we have

available -- the Solid Waste Act, the Water Act, the Spill Act, not to mention pioneering the ECRA Statute (the Environmental Cleanup Responsibility Act). Major programs in three Divisions for which I am responsible implement those laws. These Divisions have identified over the years about 1100 sites in New Jersey, which are reported to contain hazardous waste that might need to be remediated. We have reported extensively on the disposition of those sites to the Legislature over the years and quite recently -- in the last session of the Joint Appropriations Committee -- supplied them with some documentation as to what we had done with those sites. More to the point, in the last two years alone, we have acted on 300 of those sites. We have taken 39 actions on the National Priority List sites either cleanups, removals, or containments to protect public health. We have dealt with some 60 actions driven by our enforcement programs that have also led to cleanups. We have cleaned up another 100 small drum dumps, and we have taken as many as 150 actions, as I said, under the pioneering ECRA Statute.

That brings me to the question of ECRA facilities -- excuse me, I'm sorry -- Federal facilities, and in particular I understand today we are here to discuss the Lakehurst installation -- the Navy's Air Engineering Center.

As I understand it, we have characterized approximately ten of the Federal facilities in New Jersey as major in terms of environmental problems. I have made that list available to the Committee in our early correspondence with Speaker Karcher.

There are at least 100 different sites on those ten installations that may, again, require remedial action. So, in the context of the 1100 non-Federal sites we are dealing with in the State, and the active cleanup program we are pursuing, the Federal facilities present a significant additional number of sites. With respect to Lakehurst, there are 44 different sites or spill incidents that the United States Navy has identified in a report that was made available to us in the middle of 1985. In addition to that report, there are some 18 additional spills or incidents that have been reported to us since the report was prepared, which I believe was in 1983 or '84.



Taken together, there have been -- from that 44 and the 18 -- 25 cleanups that have already been accomplished, and I am sure the Navy will detail them to you when they appear before you. But, those cleanups are already completed at the Lakehurst site. So, much has been done. Despite that fact, much more needs to be done. Of the 44 sites that remain at least seven -- I said -- have been dealt with. The remainder include, according to the Navy's own reports, old landfills, waste lagoons, and open pits where substantial volumes of hazardous materials have been dumped for many years. The Navy has proposed a comprehensive study to better identify these problems and to suggest methods of remediation. Phase two of their program is about to get underway. We intend to track and to monitor that process and to ensure its successful completion.

While that is a positive statement about Lakehurst, that is not enough in our opinion. We have received reports which give us cause for great concern and for which we are insisting upon a much greater analysis of the entire site. Over the years there has been an extensive amount of contact between my Department and the United States Navy with regard to Lakehurst. Most, if not all, of that contact related to individual spills and incidents of dumping. For the most part, as I indicated, these sites have been cleaned up very quickly by the Navy, and, in fact, in one case we commended them for the pioneering effort that they took to clean up a jet fuel spill of some 3000 gallons.

However, the consistent pattern of indiscriminate dumping that seems to have been the historic norm -- maybe I should add that that is a national historic norm -- was not really manifest until a March 1983 report became available to my Department in October of that year. The executive summary of that report, however, states that this study concludes that none of the sites pose an immediate threat to human health or the environment. The United States Environmental Protection Agency's comments on that report, and the U.S. Navy's follow-up study done in May of 1984 were not made available to my Department until July of this year. Since then, we have escalated our surveillance of their site. EPA has, probably in response to our

inquiries, ranked the site for inclusion on the National Priority List, and we have initiated our own site boundary sampling program due to our concerns with both the lack of raw data and the quality of any data given. The laboratory results from our own boundary sampling program are expected very shortly, and we will, of course, make them available to this Committee as soon as we receive them.

In your invitation to my Department, you asked us to address three areas: existing water quality problems, aquifer resources that might be impacted, and the mitigation strategy, if any, that might be used to address those water quality problems.

The water quality issue is a function of local geology. The Lakehurst Naval Air Engineering Center in Ocean County is a 7000 acre facility located on the Atlantic Coastal Plain physiographic province. Topographically the site is relatively flat and lies approximately 70 feet above mean sea level. The groundwater table occurs approximately seven feet below the land surface under unconfined conditions. The Manaqua Brook flows along the southern boundary of the site, the Ridgeway Brook flow along the northern perimeter. Based upon the water table surface, as determined from the Navy's monitoring wells, local groundwater flow is towards these two surface streams. The site is underlaid by the Cohansey Formation. The combination, however, of a shallow water table, discharges of groundwater into streams, and low surface gradient, cause the groundwater and any contamination, to generally flow in a lateral direction. Accordingly, investigations of groundwater contamination are concentrated in the uppermost aquifer -- the Cohansey -- and to the nearby surface streams. As you know, groundwater movement is much, much slower when compared with surface water. In the Lakehurst area, the groundwater movement is probably much less than one foot per day. Accordingly, any contamination of the upper aquifer will remain mobilized and most certainly cannot impact the entire Cohansey Aquifer, which provides water to much of southern New Jersey. Also, my Department has not received any information from either the U.S. Navy, the U.S. Environmental Protection Agency, or from our own studies, for that matter, which demonstrates any off-site groundwater contamination from the facility.



With respect to the U.S. Navy's mitigation strategy and schedule, at this point in time we have reviewed a proposed scope of work for an engineering analysis of the entire site. We have supplied both the U.S. Environmental Protection Agency and the U.S. Navy with our full review of their proposed work plan for measuring the impact of previous waste disposal practices at the site. You will find those comments among the materials we have already supplied this Committee. We have not yet had a reaction from either the U.S. Environmental Protection Agency or the Department of the Navy with respect to those comments, nor have we yet agreed to a schedule. I mentioned earlier that this Committee could be helpful in effectuating our common goal, which is complete remediation of hazardous sites at the Lakehurst Naval Air Station. When the Base Commander appears before you, as I understand he will at your next hearing, you might ask him how the Navy will be reacting to the State of New Jersey's technical comments and our technical positions. You might also ask him to set forth what he knows about any schedules for remediation that will follow. As I said earlier -- and I have to add at this point because that sounds like a little bit of a wise guy comment and I don't mean it to be -- there have already been many cleanups at the site, and I don't want to imply that the Navy, as an institution or any of the U.S. Navy personnel, have deliberately exhibited any disregard for our environmental concerns. They have not. They have expressed their sincere concern with doing the right thing, and to date they have been very cooperative with our hazardous site mitigation personnel. There have been delays, however, in sharing the details of their on-site progress and cleanup. It is also my impression that the Navy is bound by a national schedule for cleanup of thousands of sites across the country, and they are faced, therefore, with competing for cleanup dollars amongst them and other Federal installations. That is, of course, not acceptable to the State of New Jersey, which is precisely why my Department has escalated our efforts to monitor the off-site impact and any cleanup that goes on at this site.

Finally, with respect to your questions on water quality, there have been suggestions that the hazardous discharges at the Naval

Air Engineering Center are related to possible contamination problems in the Lakehurst municipal water supply. First of all, there are no detectable contaminants in the Lakehurst municipal water supply as it is delivered to its customers. There have been several possible minor levels of organics detected in the raw water -- that is before it enters the delivery system -- however, those very low possible levels of contaminants have not been confirmed. More to the point, for this Committee's attention, there is no reliable information that suggests that the source of this material is the Lakehurst Naval Air Center. In fact, the remedial investigation that will be done by Dames and Moore under contract to the U.S. Navy, -- which has not yet begun -- will confirm whether or not Lakehurst is involved in this particular problem. But, our geological staff and our groundwater staff do not believe that that will be the case. The only other potentially contaminated well that we discovered, so far, in the area of the Naval Air Station, is in immediate proximity, is in fact, on the property of a gasoline station. One contaminant has been detected in that well. Confirmatory tests are not back to the Department. However, we have been working with the operator of the gas station and he has agreed to the complete removal of his underground storage tanks at that site. Those tanks will be removed and all the contaminated soil also removed this month.

I should note again, that we have initiated an off-the-Navy-site sampling program that includes two new rounds of sampling at the Lakehurst municipal water system, eleven individual well water supplies near the base, six stream samples -- both water column and sediment samples -- downstream from the Lakehurst Naval Air Center. I don't have the results from those samples yet-- Again, when I get them I will make them available to the Committee, and I point that out because the story could change, and I don't want to be accused of having mislead you.

Finally, and I say this again with all due respect, when I met with your staff initially, or talked to them by telephone more correctly-- I suggested that the proper way to conduct these proceedings -- and I don't get to do that and I realize it is not my



place -- would be to first call the Federal Department of Defense and the U.S. Navy, and have them explain in much greater depth than I'm going to be able to, what the problems they perceive at the site are, and, also what the remedial action schedule is. So that is in their control. In addition, the U.S. Environmental Protection Agency ought to be on the agenda and ought to be on the agenda, again, before the Department of Environmental Protection. Simply put, we have stirred the pot in Federal facilities, and I'm not really anxious to be hoisted on my own petard, so to speak.

But personal feelings aside, we have made, I think, a prudent management decision in the State, that we are not going to duplicate the efforts of the EPA in the cleanup program. So that at every site, the first basic decision that we make is who is the lead agency. And EPA has insisted, in fact, and the Department of Defense has concurred, that with respect to Federal facilities, EPA should be the lead environmental agency. And that is not to say we don't pay attention to what they're doing-- We pay attention to all the sites in which EPA is the lead agency. Just for example, Kin-Buc is an EPA lead cleanup, Lone Pine is an EPA cleanup. Burnt Fly Bog, on the other hand, is a State lead cleanup. So, it is a question of maximizing available resources and being as effective a government agency as you can be. So when EPA said they wanted to be the lead on all Federal facilities -- it is 100 more sites, and we have 1100 to deal with -- that mandate made sense to us. So as we do with all Federal lead cleanups, we have been attempting to track the progress of this particular site and all the other Federal installations.

I suggest to you, in closing, that it is a little more difficult to deal with the U.S. Navy or U.S. Air Force than it is to deal with United Cyanamid or DuPont. You have national security concerns which have been raised to us repeatedly in the BOMARC Missile situation, and I am sure they will come up in other cases. You may, in fact, run afoul of those concerns as you proceed.

ASSEMBLYWOMAN FORD: Mr. Tyler--

ASST. COMMISSIONER TYLER: I would like to thank you at this point for indulging me this long. I am sorry I did take this long, I

just felt it important to put some of those points on the table, and now I will be happy to try to answer any questions you may have. Thank you.

ASSEMBLYWOMAN FORD: Just to alleviate the last concern that you had, we do intend to hear fully from the Navy and fully from military representatives as well as from the Environmental Protection Agency on the Federal level--

ASST. COMMISSIONER TYLER: Okay.

ASSEMBLYWOMAN FORD: And I think we all understand that there might be some confusion as to conflict in jurisdictions. But if that confusion exists I think it is important for our Committee to understand that and to be aware of it. I don't perceive what order we hear--

ASST. COMMISSIONER TYLER: Okay.

ASSEMBLYWOMAN FORD: (continuing) --these stories in as being particularly germane, but we do intend to hear from all sides.

ASST. COMMISSIONER TYLER: I didn't mean to say there was confusion. Again, it is a decision consciously made that certain sites are Federal lead and certain sites are State lead. To get the definitive word, it is better to talk to the lead agency and it is even better to talk to the operating agency first. And that would be the Navy in this case. But, that is all I meant.

ASSEMBLYWOMAN FORD: Okay. You have indicated that -- I have a few questions on your statement and so forth -- there were 44 known hazardous waste sites at the Lakehurst facility?

ASST. COMMISSIONER TYLER: I indicated that there were 44 reported to us in the report done by the Navy, and in addition there had been some 18 additional spills or discharges which had also been reported to us, but had not been in that report, so that is a total of 62.

ASSEMBLYWOMAN FORD: And a certain number of them have been cleaned up?

ASST. COMMISSIONER TYLER: About 25 of those that I am aware of have been cleaned up. And I can detail those cleanups for the Committee if they would like, or I can submit it to you.

ASSEMBLYWOMAN FORD: So that the remainder are sites that are undergoing evaluation for cleanup at this point.

ASST. COMMISSIONER TYLER: Yes. That is correct.

ASSEMBLYWOMAN FORD: Do you know-- You indicated that hazardous waste was discharged at the site for -- I think what you said was -- a long time and for many years. Does your Department have any knowledge of how long this practice has been going on at Lakehurst?

ASST. COMMISSIONER TYLER: I don't know when the Station opened, but my assumption would be that it was from that date on that waste was dumped indiscriminately. In New Jersey, there were no laws to deal with waste disposal other than local public health things about rats until 1970. And there were no laws really dealing with hazardous waste in New Jersey until '75 and '77 depending on your view of the Solid Waste Act -- there were permits under it -- and the Spill Compensation and Control Act. So, for all the period before 1970, my assumption would be that waste was buried anywhere that anyone wanted to bury it and that was the practice, not just in this State, but across the nation and not just the Federal facilities, but by society in general.

ASSEMBLYWOMAN FORD: So that you are making an assumption that is not necessarily-- You don't have those facts at your fingertips or--

ASST. COMMISSIONER TYLER: No, I don't.

ASSEMBLYWOMAN FORD: Your agency is not aware expressly as to how long it has been going on?

ASST. COMMISSIONER TYLER: I can ask my staff, if you would like, exactly what we knew and when we knew it about that.

ASSEMBLYWOMAN FORD: Well you can consult with anyone that you have here, you know, in answering your questions.

ASST. COMMISSIONER TYLER: I have a number of staff people here, but I don't know that they can speak for the entire Department, either.

ASSEMBLYWOMAN FORD: Okay. Fine, maybe we can get that answer.

ASST. COMMISSIONER TYLER: Perhaps, if you would like, I can introduce the Department personnel that are here.



ASSEMBLYWOMAN FORD: Sure.

ASST. COMMISSIONER TYLER: Jorge Berkowitz who is sitting here with me -- and I apologize for not introducing you sooner -- is the Administrator of our Hazardous Site Mitigation Administration, which is part of the Division of Waste Management. Also -- Bill, if you would just stand up for a second -- Bill is a Senior Geologist and Chief of one of our Geology Bureaus in the New Jersey Geologic Survey. Behind me is Bob Sovoleski, who is a Section Chief of Jorge's administration and is blessed with the monitoring of both Federal facilities and consent order type with industry cleanups that fall under Jorge's jurisdiction. Also Don Deieso, Director of the Division of Environmental Quality. Don's responsibilities include air pollution and radiation which blessed him with the BOMARC Missile situation.

ASSEMBLYWOMAN FORD: You mentioned earlier, also, about Superfund sites and certain sites within the State being designated as Superfund sites. Has there been any designation with regard to Lakehurst? Any particular--

ASST. COMMISSIONER TYLER: It has been proposed by the U. S. Environmental Protection Agency, at least informally, I am not sure that they have actually published it yet, for a listing on the National Priority List.

ASSEMBLYWOMAN FORD: Would that be as one large site, or would that be individual sites within Lakehurst?

ASST. COMMISSIONER TYLER: From my understanding it is just one large site.

ASSEMBLYWOMAN FORD: Now, with regard to the one that would qualify -- the one large site that would qualify as the Lakehurst site -- can you describe for us just what, characteristically, that is?

ASST. COMMISSIONER TYLER: Jorge, do you do that or--

**DR. JORGE BERKOWITZ:** It is my understanding that the site has been ranked on the basis of the information that has been available that would be able to evaluate the impact and allow the site to go through the HRS (Hazardous Rankings Score) process. I presume that it is on the basis of the 44 sites that have been sited in the 1983 reports and any subsequent data that is in EPA's file that we may or may not have.

ASST. COMMISSIONER TYLER: I should indicate here that EPA ranked the site and proposed it for inclusion on the National Priority List, not the DEP.

ASSEMBLYWOMAN WALKER: Madam Chair, we are not technicians here, what is HRS?

ASST. COMMISSIONER TYLER: Hazardous Rankings Score, excuse me.

ASSEMBLYWOMAN FORD: How do they work out that score? Maybe you could fill us in on that.

DR. BERKOWITZ: That score basically takes a look at the environmental impacts of surfaces water contamination, groundwater contamination, and air contamination. It goes through a whole numerical scenario that would then assign various numbers to the releases and the discharges on the basis of the impacts, population at risk, and groundwater. For example, the number of people drawing water off potable wells in a particular area in certain vicinities, such as approximately a mile to three miles from the site. And then it goes to the numerical manipulation and comes out with a score. If the score is greater than 28.5 it will be included on the National Priority List, if it is less than 28.5 it is not eligible for inclusion in the National Priority List. That score is based on either confirmed data or observed release, and any data that is available in various peoples' files and in their possession. I would have to add that, as of late, the quality assurance program that is applied to the manipulation of that data is becoming more critical and more selective on being able to get sites on the NPL.

ASST. COMMISSIONER TYLER: Let me add one point, also, there is a popular misconception that the sites on the National Priority List are the worst. The misconception flows from all the publicity that is associated with NPL ranking. The sites that are on that list are not the worst very often with respect to immediate public health impact.

For example, the CIGNA Trading Warehouse in Newark, where we took out 8000 drums earlier this year, didn't rank at all. It failed to make the National Priority List, because the miter formula used by EPA eschewed its prejudice toward groundwater. We have told EPA that

repeatedly; we even sued them over it at one point when we challenged the approval of the National Contingency Plan with that flawed system in it. However, one of the things we have done as a policy decision, and why we concur with listing Lakehurst, is all of our most expensive cleanups we try to get listed on the National Priority List, because it is a funding list for Superfund dollars.

ASSEMBLYWOMAN FORD: Is there a range on it when you do this ranking? Based on that criteria, is there a range?

DR. BERKOWITZ: Zero to one hundred.

ASSEMBLYWOMAN FORD: Zero to 100. Did there-- What was the ranking or the score for the Lakehurst site?

DR. BERKOWITZ: I have been advised that the score would be in the high 40's.

ASSEMBLYWOMAN FORD: How does that compare to other types of Superfund sites throughout the State?

DR. BERKOWITZ: That would be reasonably high, based on the-- I perceive the-- In order to get a score that high it is, obviously, comparative to a select factor which is most biased and most counted in the process and that would be groundwater impact.

ASST. COMMISSIONER TYLER: We are still waiting for EPA to tell us the details of how they ranked the site.

ASSEMBLYWOMAN FORD: I just-- Excuse me Mrs. Muhler, I just want to get clear in my mind this ranking system. Relative to other Superfund sites throughout the State, you have indicated that the score was high 40's. If we compared that to, say, another site -- Toms River Chemical site -- in Ocean County, how does it compare to that?

ASST. COMMISSIONER TYLER: The highest ranking site is the Lipari Landfill in Gloucester County, and that has a score of 65. Toms River Chemical, I don't know what the rank is. That was listed through the enforcement process and it may not have even been formally ranked with HRS, but I could check for you.

ASSEMBLYWOMAN FORD: I guess what I'm getting at is 90% of the Superfund sites that we know that have been ranked, where do they fall relative to--

ASST. COMMISSIONER TYLER: This is in-- 49 if it holds up will be in the upper 25%-- Off the cuff I am looking at it.

ASSEMBLYWOMAN FORD: So it is towards the upper range in terms of applying this criteria and that is setting aside whether the criteria is valid or not. And you indicated that, perhaps, part of the ranking is that the weight is given to a larger part to the drinking water faction or the groundwater impact faction?

ASST. COMMISSIONER TYLER: Yes, this site is a model of where the miter formula is most effective, I guess, in the sense that it points out the need to protect public health from groundwater contamination where there are potential water supply impacts in the immediate vicinity. This site has all those ingredients-- You have the presence of waste on the site, you have well water supplies near the site, and that automatically gets you to the top of the miter list.

ASSEMBLYWOMAN MUHLER: May I ask a question?

ASSEMBLYWOMAN FORD: Yes. Mrs. Muhler?

ASSEMBLYWOMAN MUHLER: Thank you. Considering the ranking and having been to meetings with you before, George, on EPA, I am concerned now with the dollars involved in the cleanup in addition to what has to be done. Did I understand you to say that something like 60 sites were already in the process or cleaned up by the military?

ASST. COMMISSIONER TYLER: I said 25.

ASSEMBLYWOMAN MUHLER: 25, and six--

ASST. COMMISSIONER TYLER: That was my own personal counting of the files. I probably, to be safe, should have asked somebody. But at least 25.

ASSEMBLYWOMAN MUHLER: When we talk about the listing, are we talking about Superfund and the Federal moneys that come in?

ASST. COMMISSIONER TYLER: Yes.

ASSEMBLYWOMAN MUHLER: And when these sites fall in place-- Let me finish-- Should these sites fall in place in that ranking, will that money come from the military budget, or is it going to come from so-called Superfund?

ASST. COMMISSIONER TYLER: Okay. Under current law, it can't come from the Trust Fund. Under current law. Superfund is now being debated by the Congress and, in fact, the Armed Services Committee is still, today, I think, reviewing provisions governing Federal



facilities and how they ought to behave. I'm not too sure what is going to happen-- We have been in discussions with both our Washington Office people and some individual Congressmen. So, that could change. I am pretty sure that they are not going to open the Trust Fund up to Federal facilities, and I don't think the Department of Defense is asking for that. But, they are probably going to make it clear that all Federal sites should be at least ranked and put on the list.

ASSEMBLYWOMAN MUHLER: Now, from what you said, I see there has been a cooperative effort. All of these sites, from your testimony, would be EPA lead, as you spoke before us. Is that correct?

ASST. COMMISSIONER TYLER: Well, no, I don't think that is fair. From an environmental agency viewpoint, yes. That's right. If there are 44 sites or 62 sites, or whatever there are, on the Lakehurst site, they would all be, by virtue of the fact that we have said to the EPA, "That is your problem, we have our problems." They're in charge of all those sites, yes.

ASSEMBLYWOMAN MUHLER: And the studies that you have done--

ASSEMBLYWOMAN FORD: Marie, excuse me. I had a few more questions that I wanted to ask, and I thought you were asking on the same area that I was asking on--

ASSEMBLYWOMAN MUHLER: I thought I was too.

ASSEMBLYWOMAN FORD: Would you mind if we just try to-- That way I could turn it over to you next and you can ask, you know, your whole series of questions.

ASSEMBLYWOMAN MUHLER: Fine, all right.

ASSEMBLYWOMAN FORD: Mr. Tyler, getting back to the extent of the problem, I guess, is what I am trying to find out initially. In your opinion, there is no contamination to the groundwater supply or the water supply in Lakehurst Boro, for example? I think that is what you referred to earlier.

ASST. COMMISSIONER TYLER: We have not found in our sampling program, to date, any evidence of off-site impact from the Lakehurst Naval Air Center. We have found some problems in local wells in the area that we do not think, from a geological viewpoint, are related. We are looking to the Dames and Moore study to confirm that.

ASSEMBLYWOMAN FORD: So you are undergoing testing at this point in time.

ASST. COMMISSIONER TYLER: Yes, that is correct.

ASSEMBLYWOMAN FORD: Your Department with regard to the off-site water supply--

ASST. COMMISSIONER TYLER: Yes, that is correct.

ASSEMBLYWOMAN FORD: Obviously no question as to jurisdiction with regard to off-site water supply. And, at this point in time you are continuing with series of testing?

ASST. COMMISSIONER TYLER: Yes, that is right. In fact, we have taken, I think, 11 individual well samples, six surface stream samples, six sediment samples, and, I believe, we have also worked with the EPA in what they call fifth team, which means what? (referring to Dr. Berkowitz)

DR. BERKOWITZ: Field investigation. They are doing another--

ASST. COMMISSIONER TYLER: They have done another 11 potable wells. So, that whole round of data is in the laboratory and we are waiting for it to come back. It has been there for some time because of either quality assurance problems, or contract problems. It is all in an EPA lab-- They are running the samples for us.

ASSEMBLYWOMAN FORD: Well, your testing is ongoing, then.

ASST. COMMISSIONER TYLER: Yes, it is.

ASSEMBLYWOMAN FORD: So, at this point in time you don't have the information available to you to come to that opinion as to whether or not there has been any impact upon the water supply.

ASST. COMMISSIONER TYLER: What I said was, we don't have the hard data to show any. More importantly, I don't think our geology experts think Lakehurst, the municipal well, at least, could be impacted by the site. The flow is downgrading it in the other direction.

ASSEMBLYWOMAN FORD: But, the point I am getting at is, at this point in time, you have not concluded through testing, whether or not there has been any impact, you know, which I think is a different situation from the information not being available to suggest that there is an impact.

ASSEMBLYMAN HENDRICKSON: Madam Chairman, I have to leave and go to another meeting. May I ask a few questions of Mr. Tyler before I have to leave?

ASSEMBLYWOMAN FORD: All right; go ahead, Mr. Hendrickson.

ASSEMBLYMAN HENDRICKSON: Mr. Tyler, you mentioned that you stirred the pot. I have a little difficulty, coming from the Pinelands Commission and the Coalition of Mayors and the Governor's Moratorium. I believe your Department was notified about BOMARC through Pinelands. I don't remember this anxiety on that BOMARC missile site. In fact, I think if we dig through the minutes, we will find that the anxiety was not that great.

Number two, we turned Fort Dix up in the Pinelands Commission and the Coalition of Mayors, and I don't hear anything about that site being clean up, or the problems in that landfill. Historically, we have-- I believe confidence in DEP is being lost because we depend -- and I say we as citizens, not as legislators -- on having this kind of thing prevented.

You told us that in the middle 1970s, you had a handle on legislation for hazardous waste disposal, and yet we are here today listening to all of these sites in 1985. We are very happy, particularly Plumsted, that you brought forth people's anxiety on the BOMARC missile site, because they have had this anxiety since that tragedy. But I have to refer to the Pinelands Commission and preservation. I don't remember anyone stirring the pot when they were requested to do so.

ASST. COMMISSIONER TYLER: Well, I don't remember the request, but I am sure it happened. I can't speak for every individual who ever worked for the Department. But let me tell you, first of all, we have just signed the consent agreement with the Army at Fort Dix, and that landfill is under remedial action at this point in time.

Two, with respect to the BOMARC missile site, we tried to stir the pot quietly and take our normal enforcement action, but we were basically rebuffed by the Air Force.

ASSEMBLYMAN HENDRICKSON: How long ago, Mr. Tyler?

ASST. COMMISSIONER TYLER: I would have to-- I don't have--

ASSEMBLYMAN HENDRICKSON: A year ago, two years ago, five years ago?

ASST. COMMISSIONER TYLER: I'm sorry, I don't--

ASSEMBLYMAN HENDRICKSON: Did you notify any of the local people, as should have been done through the Department?

ASST. COMMISSIONER TYLER: With respect to the recent turn of events there, we are still not apprised from the Air Force of the data we have requested from them. I can't tick off for you -- I am not prepared to talk about that in detail today -- exactly when we asked for everything. But they said, "We have made everything available to you. You should have known all this stuff." In fact, still today, despite repeated pressures--

ASSEMBLYMAN HENDRICKSON: Pressures on whom, Mr. Tyler?

ASST. COMMISSIONER TYLER: On the Air Force by my Department.

ASSEMBLYMAN HENDRICKSON: But not on the local government or the county government?

ASST. COMMISSIONER TYLER: Well, I think the county and local governments have assisted us in putting--

ASSEMBLYMAN HENDRICKSON: We have the reports on what they have.

ASST. COMMISSIONER TYLER: Oh, we have those reports, and we have had them for a long time. I am not saying we didn't have those. But the definitive reports that will tell someone whether or not there was any off-site impact from the plume the day of that fire, has still not been forthcoming, despite repeated public representations by the Air Force that it is "available to you." What they mean when they say, "It is available" is, it is not classified top secret, so after they get done reviewing it legally, maybe some day, we can have it. That is their definition of available. At this point in time, our lawyers and their lawyers are about to square off, and I don't know where that is all going to go, but they are saying we have no right to any of that information.

I maintain that you still need that information. I didn't mean the information we have, which we received from the local government. That's--

ASSEMBLYWOMAN FORD: Excuse me, Jack. Are you questioning--



ASSEMBLYMAN HENDRICKSON: I am going to leave, Marilyn.

ASSEMBLYWOMAN FORD: It's Marlene, Jack. You've been two years in the Legislature with me. Get the name right. (laughter)

ASSEMBLYMAN HENDRICKSON: All right. I didn't know you were so touchy.

ASSEMBLYWOMAN FORD: Look, if I called you Harry, you--

ASSEMBLYMAN HENDRICKSON: That's fine; I don't mind. Just spell my last name right. That is what is important.

ASSEMBLYWOMAN FORD: I think we are trying to limit the questioning to Lakehurst at this point in time.

ASSEMBLYMAN HENDRICKSON: It's all part of it.

ASSEMBLYWOMAN FORD: I thought you were talking about McGuire.

ASSEMBLYMAN HENDRICKSON: All right. With Lakehurst just once more, is there not a package sewer plant which has been approved by you in that very proximity, which legally was discharging through your regulations?

ASST. COMMISSIONER TYLER: Yes, that is correct.

ASSEMBLYMAN HENDRICKSON: Have you said anything about that?

ASST. COMMISSIONER TYLER: Yes.

ASSEMBLYMAN HENDRICKSON: I mean today.

ASST. COMMISSIONER TYLER: It is shut down as of this week, I think.

ASSEMBLYMAN HENDRICKSON: Okay. I am just trying to say that--

ASST. COMMISSIONER TYLER: Absolutely. It will be hooked up to the Ocean County Municipal Utilities Authority any day this week.

ASSEMBLYMAN HENDRICKSON: Fine. And that has been discharging legally in that same area you are describing now?

ASST. COMMISSIONER TYLER: Yes, that is correct. It has not been discharging anything toxic.

ASSEMBLYMAN HENDRICKSON: I just wanted to bring that point up. I'll be back.

ASSEMBLYWOMAN FORD: Thanks, John.

ASSEMBLYMAN HENDRICKSON: Thank you.

ASSEMBLYWOMAN FORD: Let me just ask a couple of other questions, again on Lakehurst and the cleanup activities. I guess I don't really understand when you say "cleanup" what exactly is happening, or has happened with regard to the sites that have been cleaned up. Could you explain that?

ASST. COMMISSIONER TYLER: I can give you an example. Some years ago, a fuel line broke between two underground storage tanks and an estimated 3,000 or 4,000 gallons of aviation gas spilled directly into the groundwater because the tanks were in the ground -- one was underground. The Navy, with our assistance, installed a recovery well and pumped and recovered those 3,000 or 4,000 gallons of product. At the time they did it, it was a very innovative and pioneering approach to groundwater cleanup. Our geologic survey actually commended the Navy on their effort. I think that has been a widely publicized cleanup. In fact, I read a magazine article about it yesterday in reviewing for today.

There have been lots of smaller spills -- 200 gallons, 300 gallons, 25 gallons -- that have been cleaned up immediately. Those are some of the 44, or 25 other sites that are being dealt with there.

ASSEMBLYWOMAN FORD: Do you have any idea as to the time frame in terms of when all the sites will be cleaned up?

ASST. COMMISSIONER TYLER: I can provide that to you. When all the sites will be cleaned up?

ASSEMBLYWOMAN FORD: At Lakehurst.

ASST. COMMISSIONER TYLER: No. In fact, that is one of the concerns we have at this point in time. What we would very much like from the United States Navy, is a detailed schedule of when all of the events that are supposed to occur will occur, both with the Phase Two Study, and then acting upon the results of that study. I think we would like some sort of an agreement that included both EPA and our Department, which would commit, formally, everyone to that cleanup schedule.

ASSEMBLYWOMAN FORD: So, at the current time, there is no time frame for cleanup?

ASST. COMMISSIONER TYLER: Well, the Navy may have one, but I don't. I am not aware of it.

ASSEMBLYWOMAN FORD: You're not aware of it?

ASST. COMMISSIONER TYLER: That's right.

ASSEMBLYWOMAN FORD: Is cleanup possible? This isn't a situation where--

ASST. COMMISSIONER TYLER: For some sites, the answer is certainly. For others, they have not finished the characterization study yet, so it depends on what is there. We haven't found a site for cleanup, I have to say, in our broad experience, where it is not possible to deal with it. It is always possible to deal with it from a technical viewpoint. It may be very expensive, or it may involved on-site containment, but it is always possible to eliminate any public health problem.

ASSEMBLYWOMAN FORD: Containment, as opposed to cleanup.

ASST. COMMISSIONER TYLER: As opposed to digging it all up and moving it somewhere.

ASSEMBLYWOMAN FORD: Digging it all up and getting rid of it.

ASST. COMMISSIONER TYLER: That's right.

DR. BERKOWITZ: I think it might be important to realize what the 1983 report is and what the 44 sites that are cited in the 1983 report truly are. As Captain Eaton is fond of saying, "This is a worst case scenario." This is the most nonselective type of report we have, and basically on allegations.

ASSEMBLYWOMAN FORD: Were records kept? Are you familiar, or have you had an opportunity to review, or to inquire, as to whether they exist? Are there records as to the cleanup or the discharge activities at the base during the time? I understand the base opened around 1915.

ASST. COMMISSIONER TYLER: Yes.

ASSEMBLYWOMAN FORD: Records are available?

ASST. COMMISSIONER TYLER: Yes.

ASSEMBLYWOMAN FORD: And they exist for this entire period of time?

ASST. COMMISSIONER TYLER: Whenever our Department was involved with the base on an individual incident, on an individual spill, on the sewerage treatment plant that Assemblyman Hendrickson referred to, of course, there are records.

ASSEMBLYWOMAN FORD: Are they in your possession, or are they in the possession of the military?

ASST. COMMISSIONER TYLER: There are records of our activities that we have made available in meetings with your staff.

ASSEMBLYWOMAN FORD: But, you are not aware of any records as to the Navy's activities, other than the contact they have had with you over the years?

ASST. COMMISSIONER TYLER: No, obviously.

ASSEMBLYWOMAN FORD: All right. Assemblywoman Muhler?

ASSEMBLYWOMAN MUHLER: Can you tell me if there is any possible concern for the Manasquan River Reservoir proposed because of anything going on on that particular site, or any others?

ASST. COMMISSIONER TYLER: An instant geologic consultation advises me that, no, there isn't. I could expand, but at this point--

ASSEMBLYWOMAN MUHLER: No, that is not necessary. Can you tell me, how much notice did you have of coming here today? I am just curious. I feel a little ill-prepared. I only had 12 hours.

ASST. COMMISSIONER TYLER: Okay. Our formal invitation arrived on Tuesday, late in the afternoon. A heroic effort on my staff's part got me up to speed by this morning to get in here. But, in fairness, I think we have been discussing all kinds of Federal facilities with Mark for a couple of weeks. So, the only thing we didn't have really, was, one, a clear indication of the agenda, and also what the issues were that would be discussed today.

I really did want to have the Navy and EPA precede us. I think a lot of these questions would be cleared up very quickly.

ASSEMBLYWOMAN MUHLER: Do we have any jurisdiction over military bases, if I might ask a difficult question?

ASST. COMMISSIONER TYLER: It is; I think it is anyway. The attorneys in my Department have advised me that our jurisdiction is questionable. Every Federal law that governs environmental protection states that local law shall apply to Federal installations. However, they told me that the case law is less than clear as to the willingness of the Federal courts to carry that through to completion. They have made various distinctions. For example, in a recent Florida decision,

the judge found that if Congress thought Federal facilities were subject to state permits when they enacted RCRA and the Clean Air Act, and they knew about state permits, they would have said it. They didn't; therefore, we will narrowly construe the state jurisdiction here and say that the Waiver of Sovereign Immunity that is necessary to invoke local jurisdiction was not granted.

I am not sure that would hold in New Jersey. In fact, we have many permits at Federal facilities in New Jersey. I think the real question is, was it necessary, with respect to Lakehurst, for my Department to push for more jurisdiction than we are being granted on a consent basis by the Navy and by EPA? At this point, the answer is no. If the issue becomes ripe, you have my assurance that we are not shy, and we will be the first to file that suit and seek whatever remedial action is appropriate. But, at this point, we are negotiating a schedule with the Navy and EPA, hopefully, to remediate the site. We have done off-site sampling to make sure that there is no public health impact from the site in the interim. I don't think we need to test the jurisdictional issue with respect to the Navy at Lakehurst.

As I suggested earlier, the test may come rather quickly with respect to McGuire Air Force Base or the BOMARC site.

ASSEMBLYWOMAN MUHLER: I assume-- Yes, we are going to be discussing it through all of this. That is why I wanted to ask it at the outset. Could any possible water contamination on the base come from outside of Lakehurst? I know there are a number of facilities in that area. Is it not possible that some of it could have nothing to do with the base itself, but come from the outside?

ASST. COMMISSIONER TYLER: I would have to say that no one on the DEP staff I dealt with suggested that on-base contamination was coming from off the base. I would expect that that would also be revealed by the Dames and Moore workup.

ASSEMBLYWOMAN MUHLER: On the ranking on the Federal list, is there a trigger point? You know, I have heard you talk about percentages that they have to-- They are graded on a scale as to their importance as to when they are cleaned up. Will adding all of these other sites-- Is that going to have some impact on the timetable of the cleanup nationwide?



ASST. COMMISSIONER TYLER: Let me answer first with respect to New Jersey, if I may. The reason we are willing to let EPA take the lead, beyond the fact that it makes imminent sense for a Federal agency to deal with another Federal agency, is precisely the point you're making. If you add another 100 sites to the list we have to deal with, our management plan of major sites only includes 150 or 160 sites. So, you have added a major chunk of work to our existing State staff, and you are forcing the expenditure of vast State resources to deal with the Federal problem. I submit that might be necessary. It is not necessary yet, in our opinion, and when it becomes necessary we will probably be at either an appropriations hearing, or some other hearing, saying, "We need some money to go beat up the Navy or the Air Force."

So again, with that workload factor in mind, we would also want to see EPA stay as the lead environmental agency on these Federal facilities.

ASSEMBLYWOMAN MUHLER: These things that you have done, they have all been with State dollars, our own studies. Is that correct?

ASST. COMMISSIONER TYLER: I'm not sure. Let me just check on that. I think EPA volunteered their laboratory resources to us for this round of sampling. We had expended some moneys from the State's Spill Fund, which we are going to seek cost recovery of somehow in the Federal grant process, or in court if we have to, but I don't think it will come to that.

ASSEMBLYWOMAN MUHLER: Good. That was going to be my next question.

ASST. COMMISSIONER TYLER: Of course, we have extended a considerable amount of staff time in reviewing the individual installations.

ASSEMBLYWOMAN MUHLER: Okay, thank you very much.

ASSEMBLYWOMAN FORD: I'm going to go to Jorge Rod next, but just on the scheduling of the hearing, you've been in contact with Mark Smith from the Office of Legislative Services throughout this -- you or your staff, I mean.

ASST. COMMISSIONER TYLER: Yes.

ASSEMBLYWOMAN FORD: You have been familiar with the resolution that was adopted by the Legislature towards the end of August establishing this Commission, and then one on September 12 expanding its numbers.

ASST. COMMISSIONER TYLER: Yes.

ASSEMBLYWOMAN FORD: And, within that, it indicates what the agenda would be for our hearings, since we are limited and proscribed by that agenda as set forth in the resolution. Is that correct?

ASST. COMMISSIONER TYLER: I am familiar with the resolution.

ASSEMBLYWOMAN FORD: And, during the past few weeks, there have been numerous contacts from the Speaker of the Assembly and from my offices indicating that we would be holding hearings, and that there was a need to obtain information from your offices?

ASST. COMMISSIONER TYLER: Absolutely. I authored most of the responses.

ASSEMBLYWOMAN FORD: And that, at least informally, you were advised that the hearing would be coming up, the first hearing on this date.

ASST. COMMISSIONER TYLER: What I said is -- to be fair -- I had a memo from Mark dated October 2, which set forth all three dates of hearings. What I also said was, simply, I just didn't have the specific agenda for today's meeting until--

ASSEMBLYWOMAN FORD: No, what you said was that you didn't get your formal invitation until--

ASST. COMMISSIONER TYLER: Well, that is true.

ASSEMBLYWOMAN FORD: (continuing) --Monday or Tuesday, or something like that.

ASST. COMMISSIONER TYLER: That is absolutely true. Tuesday night at five o'clock that letter was hand-delivered from Mark to the Commissioner.

ASSEMBLYWOMAN FORD: I just don't want anyone to think that we sprung this on you by surprise in the last couple of days.

ASST. COMMISSIONER TYLER: Well, all right. I mean, I don't want to be argumentative, but, as a matter of fact, I don't feel comfortable coming over here and just going through all of these

answers, unless I am really prepared. I have tried to prepare for this. It has taken an extensive amount of DEP staff time and my time to make it available, not that you are not entitled to it, but if we knew the agenda a week or two in advance, we could have much better prepared for today, and we could have much better answered your questions.

ASSEMBLYWOMAN WALKER: I knew the agenda when I voted on the resolution.

ASST. COMMISSIONER TYLER: Well, I didn't have it until October 8th at four o'clock, Assemblywoman. Again, I'm not trying to be argumentative; I'm trying to be fair.

ASSEMBLYWOMAN MUHLER: I certainly didn't know it when we passed the resolution.

ASSEMBLYWOMAN WALKER: It is in there.

ASSEMBLYWOMAN MUHLER: The date?

ASSEMBLYWOMAN WALKER: Not the dates, but, I mean, he has lead time.

ASST. COMMISSIONER TYLER: Would you like me to read the letter that we got?

ASSEMBLYWOMAN FORD: You received the letter September 9th asking for information to that effect.

ASST. COMMISSIONER TYLER: Yes, all of the information we had on Federal facilities ever--

ASSEMBLYWOMAN FORD: I don't want to dwell on this. It is just that, you know, a special effort was made to point out that you had short notice, and I just want to point out the other side of the story as well.

ASST. COMMISSIONER TYLER: Okay, I guess we each had similar thinking.

ASSEMBLYWOMAN FORD: Jorge? Assemblyman Rod?

ASSEMBLYMAN ROD: Yes. I am not really an expert in the field, and I am going to be asking a lot of questions, of course. Some of the questions might be really dumb questions, but I am going to ask them.

From one to ten, how serious is the problem?

ASST. COMMISSIONER TYLER: From a public health viewpoint, right now, we don't have the bottom line, but it appears to be about a "one," maybe less. From a potential public health viewpoint, I'd say it is a "ten." There appears to be a vast amount of contamination on that site. It has not yet apparently gotten off it. We are checking to make sure of that through Dames and Moore, who work for the Navy, to confirm that. It will be cleaned up before it becomes a real debt. Okay?

ASSEMBLYMAN ROD: Okay. Now, let me ask you a question. You mentioned -- and, I had a hard time following you in your testimony because I think you just--

ASST. COMMISSIONER TYLER: Sorry. I was trying to summarize it.

ASSEMBLYMAN ROD: I understand. No problem. You mentioned about the upper aquifer, and it is a lower aquifer. Can you explain the difference?

ASST. COMMISSIONER TYLER: Yes. Maybe I could call on my geology staff to do that, if you wouldn't mind. Is that all right?

ASSEMBLYMAN ROD: Yes, that will be fine, because I am driving to other questions as far as this.

ASST. COMMISSIONER TYLER: Okay, Bill?

ASSEMBLYMAN ROD: As far as the Commissioner mentioned the upper aquifer--

ASST. COMMISSIONER TYLER: Bill, come on up here. Have a seat here.

**WILLIAM ALTHOFF:** William Althoff -- A-L-T-H-O-F-F.

ASSEMBLYMAN ROD: Okay. You mentioned about the upper aquifer.

ASSEMBLYWOMAN WALKER: Into the microphone, would you repeat your name?

MR. ALTHOFF: William Althoff -- A-L-T-H-O-F-F.

ASSEMBLYMAN ROD: You say about the upper aquifer, and I guess it is the lower aquifer. Is that correct? And, what is the difference as far as the separation, and what separates this aquifer? Can you explain that to me?

MR. ALTHOFF: Well, the upper aquifer is simply the shallowest formation underlying air station. It is the Cohansey Aquifer. But, it is not the only aquifer underlying the air station. There is a very thick pile of unconsolidated materials, somewhat similar to the diagram on the right-hand side here.

The aquifer that immediately underlies the NAEC facility is the Cohansey; that is, to say it is the one right after land surface. As one proceeds vertically downward, you are going through different layers within this sandwich of materials. The Cohansey is simply the uppermost, and there are other aquifers farther down beneath that same area.

ASSEMBLYMAN ROD: Okay. Let me ask you a question, another question. Is there a possibility that-- Which one is the one that would have potential contamination?

ASST. COMMISSIONER TYLER: The uppermost.

ASSEMBLYMAN ROD: The upper?

ASST. COMMISSIONER TYLER: The uppermost. The aquifer nearest the surface.

ASSEMBLYMAN ROD: The Cohansey is the one we have?

ASST. COMMISSIONER TYLER: Yes.

ASSEMBLYMAN ROD: Okay. Now, is it possible if you drill-- First of all, how many people in the area depend on well water, besides Lakehurst?

ASST. COMMISSIONER TYLER: I would say virtually everyone in the immediate area depends on well water, either municipal well water or private wells.

ASSEMBLYMAN ROD: Well water, or private water.

ASST. COMMISSIONER TYLER: Yes.

ASSEMBLYMAN ROD: Okay. Do you feel that when you have additional wells dug in the area, you are taking a risk as far as contaminating the other aquifer if you go deeper into, you know, if you dig a well?

MR. ALTHOFF: Well, like with any activity that is done imprudently and carelessly, there is that potential. But, well drillers are licensed in the State, and if they do their job as per



their requirements and their credentials, there is no reason why a well could not be drilled even through a contaminated area and draw clean water from a lower area.

ASSEMBLYMAN ROD: Let me ask you a question. Have you drawn any sets of specifications to give the local well drillers in the area on how and which way they should be drilling the well? Do you inspect any new wells drilled in the area? Have you done any inspections?

Suppose a homeowner's well goes dry -- okay? -- and, he wants to dig a new well in the area?

ASST. COMMISSIONER TYLER: Generally speaking, we license the well driller. We have specifications for well drilling, and they are required to comply with them. Most, if any, well driller-- No, strike "if any." Most well drilling inspection is done by either a county or local health department. In fact, in several counties, we have agreements with the counties that they carry that out. I don't know for sure if they do in Ocean or not. I suspect they do. They have a pretty competent local Health Department there. They would inspect.

We inspect well drilling most often when they are investigatory wells, monitoring wells that are used by us in groundwater investigations or by other individual parties in groundwater investigations.

ASSEMBLYMAN ROD: Okay. I see in other cases where you have drawn up specs because of contamination. You haven't done that as far as how to drill the well.

For example, in Lacey Township, you have drawn a set of specs for the well drillers because you have a contamination, and you don't want any additional holes to be punched in the ground because it could cause additional contamination to the other aquifers. Have you done that in this area at all?

MR. ALTHOFF: Yes, that was done specifically in the Lacey area. Again, we have special well specifications when we know well drilling is going to occur in an area of known contamination. Obviously, extra prudence is required, and we do tell whoever is going to be drilling the wells to have them done with extra care. We don't compound the contamination problem. That, indeed, was done in Lacey Township, yes.

ASSEMBLYMAN ROD: Have you conducted any groundwater testing outside of the base, and, if so, what kind of testing? Individual wells, homeowners' wells, or do you have your own monitor wells in place already? How many, if you have any?

ASST. COMMISSIONER TYLER: We have taken 11 individual well samples. We have taken 16--

ASSEMBLYMAN ROD: Can I interrupt? Individual well samples? Is that from homeowners?

ASST. COMMISSIONER TYLER: Yes, actually 12, I'm sorry.

ASSEMBLYMAN ROD: And, you have documentation? You know how deep these wells are, right?

ASST. COMMISSIONER TYLER: Yes, and we also have taken samples -- two rounds of sampling -- from the Lakehurst Municipal Water Department.

ASSEMBLYMAN ROD: What are the results of the 1981 Navy Ground Tests of the Lakehurst base? Do you have those results?

ASST. COMMISSIONER TYLER: Off base?

ASSEMBLYMAN ROD: Yes.

ASST. COMMISSIONER TYLER: I don't know.

DR. BERKOWITZ: Are you referring to the material included in the 1983 report?

ASSEMBLYMAN ROD: Yes.

DR. BERKOWITZ: I think it is Appendix C of the 1983 report.

ASST. COMMISSIONER TYLER: Obviously, we have it.

ASSEMBLYMAN ROD: Can you tell me any irregular readings in any of this data at all? I don't-- Like I said, I am a layman when it comes down to this type of a situation. I do have a little experience from local Beachwood and Lacey and other towns.

DR. BERKOWITZ: What you see before you, I believe -- if we are looking at the same thing, which is Table 3-- Is that correct? I'm looking at Table 3. What you see are a list of chemicals that have been found actually in four different locations. Three of them were on base, and one of them was at the Boro of Lakehurst Well.

ASSEMBLYWOMAN FORD: Dr. Berkowitz, maybe just for the record-- We are referring to the Appendix C Analysis of NAEC Drinking Waters for Chemical Pollutants dated July, 1981. It is Table 3.

ASSEMBLYMAN ROD: Just--

ASST. COMMISSIONER TYLER: What you-- Go ahead, I'm sorry.

ASSEMBLYMAN ROD: Go ahead. Explain to me which ones are the most irregular ones and by how much.

DR. BERKOWITZ: At this particular point -- and, you are probably aware that there was a review of this data -- the numbers that appear are rather high, but they are also rather peculiar in that in six different samples, individual samples, you have 10 compounds which demonstrate the same value. This would cause some very serious concerns whether this data is reliable or not.

ASST. COMMISSIONER TYLER: Let me put it in layman's terms. It would be an impossible quirk of fate for five--

ASSEMBLYMAN ROD: How much higher from the normal?

ASST. COMMISSIONER TYLER: We think this data is garbage. Okay? It would be an incredible quirk of fate chance for five or four separate samples in four separate wells to have identical results.

ASSEMBLYMAN ROD: Okay. Let me ask a question. When you received this data, you went back to this source and tested right away?

ASST. COMMISSIONER TYLER: No.

ASSEMBLYMAN ROD: No?

ASST. COMMISSIONER TYLER: No.

ASSEMBLYMAN ROD: Can you tell me how come?

ASST. COMMISSIONER TYLER: We received this data at the end of 1983. My recollection is that already had been told by the Navy in maybe 1982 or 1981 that this data was no good. They had an independent analysis done of this data by Princeton Aqua Science, and that turned up non-detects.

DR. BERKOWITZ: This data was submitted-- The 1981 data was submitted to us in 1983.

ASSEMBLYMAN ROD: Can I ask you a question? What was the detection limit?

ASST. COMMISSIONER TYLER: I really think we can't-- We could get--

DR. BERKOWITZ: The detects limits are half apart for bidding -- okay -- according to the report.

ASSEMBLYWOMAN FORD: I think Assemblywoman Kalik had a question just on this one thing.

ASSEMBLYWOMAN KALIK: I just want to ask, first, do you have a copy of that Princeton test that was done to, in fact, show that those figures were erroneous?

DR. BERKOWITZ: Yes, sure.

ASSEMBLYWOMAN KALIK: Could I see it?

DR. BERKOWITZ: I don't have it with me, but I'll get it to you.

ASSEMBLYWOMAN KALIK: Well, if you're telling me those figures are erroneous, I want to see the figures that--

DR. BERKOWITZ: Sure, absolutely.

ASSEMBLYWOMAN KALIK: (continuing) --in fact, show me that it is erroneous because otherwise--

DR. BERKOWITZ: I will submit that analysis to you.

ASSEMBLYWOMAN KALIK: And, the second question is, how long does it take to do a test?

DR. BERKOWITZ: How long does it take to do a test? Do you mean to take a sample?

ASSEMBLYWOMAN KALIK: Those tests, the test results. How long do those tests take?

DR. BERKOWITZ: These tests were taken by, I think, the Navy in 1981.

ASSEMBLYWOMAN KALIK: That is not what I am asking. How long does it take to do a test of a well?

DR. BERKOWITZ: Well, it takes a few seconds to take the sample.

ASSEMBLYWOMAN KALIK: And how much does it cost?

DR. BERKOWITZ: Maybe \$2000 for a full priority clean-up scan, and about--

ASSEMBLYWOMAN KALIK: And, with a report like that, you didn't think it was important for DEP to corroborate or to disavow those figures?

DR. BERKOWITZ: The initial reaction of any layman -- and, I'll put myself in the layman's category in this case -- is that the

lab technician ripped off the Navy. There is no way those results are real. Somebody copied numbers across the column.

ASSEMBLYWOMAN KALIK: Show me that they are not real. If I were living near that well, I would want to know in my hands how come--

DR. BERKOWITZ: I'll show you the Princeton Aqua Science report. Well, you know, there are two points. One is the Princeton Aqua Science report, which we will give to you. Two, all municipal water in New Jersey is now tested for toxic organics. We are the only State in the program that has that kind of a program. We have been putting it in place for the last year and a half, and we now have the first two rounds of sampling back from Lakehurst. These results are not confirmed.

In fact, there was one -- as I said earlier -- trace amount of possible organic in one well. The well was shut down as a precaution, and the confirmatory tests showed non-detect.

Also, in the delivered water in Lakehurst, there is no detectable toxic organic contamination. So, I feel very comfortable with our decision not to act on this, and our decision to rely on the Princeton Aqua Science report, which I will supply you.

ASSEMBLYWOMAN KALIK: Well, I don't feel very comfortable, and I think you saved \$2000 and wasted two years. But, that is my own personal opinion. I am not doing the question right now; Rod is. I would just like to ask through the Chairman if we could have those Princeton reports.

DR. BERKOWITZ: I'll get it to you.

ASSEMBLYWOMAN FORD: He'll get it, and I'm sure--

DR. BERKOWITZ: I have a copy right here, which I would be happy to give to you.

ASSEMBLYMAN ROD: Let me ask a question. What were the detection limits in the Princeton Aqua Science test?

ASST. COMMISSIONER TYLER: I don't know offhand. I would have studied them and brought them to your attention. I thought you had them. We'll be glad to--

ASSEMBLYMAN ROD: Do you think we can have that for the next meeting, Commissioner?

ASST. COMMISSIONER TYLER: Well, frankly, I'll get them to you before then.

ASSEMBLYWOMAN FORD: Assemblywoman Walker?

ASSEMBLYWOMAN WALKER: These are the 1981 tests that the United States Navy did, and you said they are garbage.

ASST. COMMISSIONER TYLER: They told us that.

ASSEMBLYWOMAN WALKER: All right. They said it was garbage; you say it was garbage. I see a lot of 300s here. What do these 300s mean? I'm not, you know, involved in it.

ASST. COMMISSIONER TYLER: They don't mean anything.

ASSEMBLYWOMAN WALKER: Do you mean that somebody just put down 300 on a piece of paper, and it means absolutely nothing?

ASST. COMMISSIONER TYLER: It is the only way you could ever get that kind of duplicate results over four tests. I mean, those wells are at least thousands of yards, if not miles, apart. To have that incredible coincidence occur is just-- You could put 100 groundwater experts up there, and everyone of them will tell you, there is no way that could happen.

ASSEMBLYWOMAN WALKER: Could it be true in one well?

ASST. COMMISSIONER TYLER: Yes.

ASSEMBLYWOMAN WALKER: What does it mean? What does the 300 figure mean?

ASST. COMMISSIONER TYLER: It could be true in any one of those wells.

ASSEMBLYWOMAN WALKER: You're not answering my question. What does it mean to me? I don't know what that means.

ASSEMBLYWOMAN FORD: It just means 300 parts per billion or something like that.

ASST. COMMISSIONER TYLER: I don't know. Does it mean 300 parts per billion?

DR. BERKOWITZ: It means 300 parts per billion.

ASSEMBLYWOMAN WALKER: Then how can you determine it is garbage if you don't know what it means?

ASST. COMMISSIONER TYLER: We know that that whole testing regime is garbage. That would never be-- We can't take an action to



close a well without proof that can be substantiated. I can't even tell a homeowner until I have a confirming Quality Assurance Report that we found something in his well. I couldn't use that to do anything.

ASSEMBLYWOMAN WALKER: Obviously that number stands for something, and for some reason, you can't--

ASST. COMMISSIONER TYLER: I'm not sure what you are asking me. Is it 300 parts per billion?

ASSEMBLYWOMAN WALKER: I know nothing about these numbers and what they are supposed to mean. I am asking you what they mean.

ASSEMBLYWOMAN FORD: Maybe I can--

DR. BERKOWITZ: We deal with this type of situation on an every-day basis. The numbers are given to us without quality assurance or quality control, which means that we don't know whether these numbers are real or they are not. I can give you chapter and verse where we took a look in our professional judgment and said, "This number is not real, and we had better damned well verify it before we evacuate people."

Generally speaking, because of our professional expertise, we are able to make that call.

ASSEMBLYWOMAN WALKER: What is it supposed to mean?

DR. BERKOWITZ: I am telling you that in our professional expertise, these numbers have no bearing on reality at all.

ASSEMBLYWOMAN WALKER: For some reason, you don't want to answer this question.

DR. BERKOWITZ: I don't know what the question is.

ASSEMBLYWOMAN WALKER: What are these numbers supposed to mean? I can't be any clearer.

DR. BERKOWITZ: Three hundred parts per billion of acrolein. Three hundred parts in Well No. 9, and right across, Well No. 37 in the Hill System.

ASSEMBLYWOMAN WALKER: All right. What is that substance you're talking about -- acrolein?

DR. BERKOWITZ: It's obviously an organic chemical.

ASSEMBLYWOMAN WALKER: It's not obvious to me, sir.

DR. BERKOWITZ: It is an organic chemical.

ASSEMBLYWOMAN WALKER: All right. What is supposedly an acceptable level? Maybe we can get the answer this way.

ASST. COMMISSIONER TYLER: I again defer to the United States Navy, which hired this consultant, which advised us, two years before we got this report, that the data in it was not worth the paper it was printed on. I don't understand the point of us going through garbage data with you.

ASSEMBLYMAN ROD: Let me say something, Commissioner. Are the Environmental Testing Labs licensed by the State of New Jersey? I mean, are they--

ASST. COMMISSIONER TYLER: I can check. There are some labs that are licensed by the State.

ASSEMBLYMAN ROD: Let me tell you from a layman's point of view, okay? I have had experience with Environmental Testing Labs in the past because I think we were one of the first towns to close a landfill. Some of the readings, in the opinion of other people, did not look the way they should. So, we went out and got someone else to verify those readings. Now, when you received the readings, did you get someone else to verify them or to re-test the wells?

ASST. COMMISSIONER TYLER: No, not immediately. First of all, when we received them, one, on their face, they were no good. Two, we had already received the report that said they were no good, to ignore them. And three, we did the confirmatory testing under the State Safe Drinking Water process, which is now affecting all municipal water departments. We know that they are not accurate results.

The real figures are non-detect for all contaminants in the Lakehurst municipal water supply system, with one possible exception, an unidentified organic, possibly a one part per billion. That did not get confirmed in the mandatory second round of sampling. Whenever you get a possible, you do a check. It did not get confirmed and, in fact, we never got any in the delivered water to the Lakehurst municipal population.

ASSEMBLYWOMAN KALIK: And that is as per whose testing?

ASST. COMMISSIONER TYLER: That is per three different sets of tests conducted: (1) by the State-- Back off, sorry. The first

round of tests was done by the municipal water company with a certified laboratory submitted to us. The second--

ASSEMBLYWOMAN KALIK: When? I don't mean to be rude, but when?

ASST. COMMISSIONER TYLER: I would have to check the exact date, but I believe it was January, 1985. January 2, 1985 sticks in my mind.

ASSEMBLYWOMAN FORD: Maybe we can go back and try to restore some--

ASSEMBLYWOMAN MUHLER: Marlene, I think I could clarify this if I could ask him a question.

ASSEMBLYWOMAN FORD: On the same issue?

ASSEMBLYWOMAN MUHLER: The very same issue. In reading the 1983 report, which is based on a 1981 analysis, if I read it correctly, the original testing with that rather unusual chart was done, it says AEC, which was the Navy itself and one of its branches. Is that correct?

ASST. COMMISSIONER TYLER: I believe that is correct, yes.

ASSEMBLYWOMAN MUHLER: And if I read the second one right, it was done by Princeton Aqua Science. Now, is that a certified analysis group in this State?

ASST. COMMISSIONER TYLER: Yes, it is. I believe it is, yes.

ASSEMBLYWOMAN MUHLER: So, this was done -- hired by them, by the Navy itself, to do a professional report?

ASST. COMMISSIONER TYLER: I believe so, yes.

ASSEMBLYWOMAN MUHLER: So, they themselves saw that there was no validity in the first analysis of that water?

ASST. COMMISSIONER TYLER: Yes, and they sent that to us at the time.

ASSEMBLYWOMAN MUHLER: Right, okay. So we should really ignore this first report?

ASST. COMMISSIONER TYLER: Yes.

ASSEMBLYWOMAN MUHLER: As a matter of fact, to me it looks like a typewriter went wild looking at the numbers. But, this one is the correct one, which was done by a professional organization and certified?

ASST. COMMISSIONER TYLER: Yes.

ASSEMBLYWOMAN MUHLER: Thank you.

ASSEMBLYWOMAN WALKER: May I pursue?

ASSEMBLYWOMAN FORD: Assemblywoman Walker.

ASSEMBLYWOMAN WALKER: See, there are some things here that are bothering me. You said that EPA is the lead agency.

ASST. COMMISSIONER TYLER: Yes.

ASSEMBLYWOMAN WALKER: And EPA wrote in this 1983 report: "The maximum pollutant levels reported on Pages C-7 and C-8" -- which is what we are talking about here with these numbers -- "indicated that the level of acrylonitrile, and a few others, all exceed the established EPA water quality standards."

Now, on Page C-7, I see a number for this substance acrylonitrile that says 0.0084, which is their criteria, or the acceptable level. Now I see that the Navy tests say 300 parts per billion. I was asking what the standard was; you didn't know the answer, but I see it's here now. You also told me it could be possible in one well that maybe that number turned up. Maybe that well is the Lakehurst Boro well.

ASST. COMMISSIONER TYLER: Not true.

ASSEMBLYWOMAN WALKER: How do you know that? You didn't go back and test.

ASST. COMMISSIONER TYLER: Yes, we did.

ASSEMBLYWOMAN WALKER: You went back and tested to see that--

ASST. COMMISSIONER TYLER: We have three rounds of tests which I have just read off twice for the Lakehurst municipal well. They are non-detect in the well. More importantly, I think, the report you read from which EPA did, was not distributed to this Department with the 1983 report. It was given to us in July, 1985, and we reacted to it. We reacted to it by calling on the Navy publicly to expedite their cleanup program. We reacted to it with a full barrage of perimeter sampling. So I kind of resent the suggestion that we sat on this. We didn't.

ASSEMBLYWOMAN WALKER: What were the defection limits in the subsequent test?

ASST. COMMISSIONER TYLER: I don't know. I will be glad, as I said, to go over that and get it to you. I thought you had it already.

ASSEMBLYWOMAN WALKER: No, we don't. All we have is this report which says that this substance, acrylonitrile, is 100,000 times more than the EPA limit.

ASST. COMMISSIONER TYLER: You know, I really have to question throwing out numbers like that. You are going to--

ASSEMBLYWOMAN WALKER: I'm asking you and you're--

ASST. COMMISSIONER TYLER: Well, I'm telling you that there is no merit to that number whatsoever. The Navy's own consultant has thrown the number out. Simple logic says you don't score five times in a row on five different wells, and we have tested the municipal well field at Lakehurst repeatedly and there is no detectable contamination in anyone's water.

ASSEMBLYWOMAN FORD: What did the Princeton level come up with?

ASST. COMMISSIONER TYLER: I don't have that in front of me, I'm sorry.

ASSEMBLYMAN ROD: I am just wondering, Commissioner, if the government got reimbursed for this Environmental Testing Labs?

ASST. COMMISSIONER TYLER: I don't know; you will have to ask the Navy. We didn't pay for it.

ASSEMBLYWOMAN FORD: Jorge, do you want to continue with your questions?

ASSEMBLYMAN ROD: Yes. Let me ask another question, Commissioner. You mentioned about the Exxon Station located outside the-- I believe it was an Exxon Station, right?

ASST. COMMISSIONER TYLER: I didn't say that, sir, but that is correct.

ASSEMBLYMAN ROD: Where you found contaminated soil in that station-- Is that a fact, or is that just something we presumed was contaminating the soil?

ASST. COMMISSIONER TYLER: Whenever you take out an underground tank that you think has been leaking, and you take out some



of the soil around it, it is usually discolored and very visible. I am not aware if we have done any tests. I don't think we have, other than the well itself.

ASSEMBLYMAN ROD: So we don't really know-- We are not sure if the soil is contaminated because of that. Is that tank leaking?

ASST. COMMISSIONER TYLER: Excuse me. Bill, do you know the details on the Exxon Station? (Mr. Tyler consults with Mr. Althoff.) I don't want to mislead you. I believe the tank is being replaced as a precaution based on the well base and that some soil will be taken out if it is discolored, if there appears to have been any leaks. Almost any tank that is in the ground for a number of years will have some minor leakage.

ASSEMBLYMAN ROD: Let me ask you a question, and maybe Jorge or someone can answer.

ASST. COMMISSIONER TYLER: Sure.

ASSEMBLYMAN ROD: This has been told to me many times. Can one gallon of used oil contaminate an aquifer if you dump it in the ground?

DR. BERKOWITZ: Not seriously. Certainly, it is contamination at the point it's spilled. But if it were to continue moving, it would be the analogy to a puff of smoke released into the atmosphere, only a much smaller atmosphere. Obviously, you are talking in the confines of the aquifer. But, it will dissipate until it is not measurable anymore, and is effectively gone.

ASSEMBLYMAN ROD: Okay. Is it possible that this contamination in Lakehurst can travel faster than one, two, three miles in days?

DR. BERKOWITZ: I am really handicapped in answering that question until we have the results of the Dames and Moore Study. Our geologists tell us that we would expect to find most of the contamination in the surface streams, that the groundwater flow is gradual, very slow, and not at a severe gradient; that is, it stays level beneath the surface of the ground. Those two streams -- and this is a common occurrence in groundwater investigations -- add as natural drains for the upper Cohansey in that setting. So, monitoring those

streams, which is what we have done, is probably the best quick indicator of off-site problems.

ASSEMBLYMAN ROD: You do have monitoring wells around the base?

ASST. COMMISSIONER TYLER: I don't believe so.

DR. BERKOWITZ: One hundred and thirty.

ASST. COMMISSIONER TYLER: On the base?

DR. BERKOWITZ: On the base, not--

ASST. COMMISSIONER TYLER: That's by the Navy, I'm sorry.

ASSEMBLYMAN ROD: Oh, they do have monitoring wells?

ASST. COMMISSIONER TYLER: Yes. I thought you meant DEP's independent.

ASSEMBLYMAN ROD: How about outside the base? Do we have any monitoring wells outside the base?

ASST. COMMISSIONER TYLER: You can tell, if they have 130 wells on site, you know pretty definitively what is happening with the groundwater.

ASSEMBLYMAN ROD: Are they at different depths?

ASST. COMMISSIONER TYLER: Yes.

ASSEMBLYMAN ROD: Do you think it is advisable to put monitoring wells outside the base to see if the contamination is--

ASST. COMMISSIONER TYLER: I would rather see the results of our stream analysis before we make a decision on additional monitoring wells.

ASSEMBLYMAN ROD: Let me go back to one of my original questions. I am very concerned about the specs as far as drilling new wells, okay?

ASST. COMMISSIONER TYLER: Okay, I understand.

ASSEMBLYMAN ROD: You know, I can see excellent well drillers in the area, and I can see well drillers who tell the homeowners, "Well, you're going down 80," and he only goes down 30. If you have a septic tank next to you, you know what you are getting. Do we have a set of specs? I mean, I would assume that if we have contamination like this, the first thing we do is notify the townships, the Ocean County Board of Health, and the local Board of Health, saying: "Now we

have a set of specs in order to drill a new well. You have to clear it through DEP." Are we doing that now? Are we in the process of doing that?

ASST. COMMISSIONER TYLER: At the Lakehurst site, I don't think so. I don't think it is appropriate yet. At some point in every cleanup process, it becomes necessary to do that, but the definitive evidence has to be gilt-edged to do that because it affects how people build, and how people move property and convey property. There are massive questions. We worked with your township to give you an tentative piece of advice for an area of concern. I don't even suggest redlining or anything like that. We were very cautious -- I think you will recall -- to make sure we had definitive well information and water quality information before we drew that line, because the first person who wants to build that can't get a well-drilling permit, is going to sue us. We better have the ability to defend before we make that decision.

So, yes, at some point in the process when definitive information is available, you notify the local government and you notify the county government. Again, the geologic situation at the site and the evidence we have seen does not suggest any kind of off-site contamination at this point. So that would be an inappropriate response at this point.

ASSEMBLYWOMAN MUHLER: May I ask a question?

ASSEMBLYWOMAN FORD: Assemblywoman Muhler.

ASSEMBLYWOMAN MUHLER: I know we have these charts and numbers, and the Navy has sent us over the updated report on the monitoring of the water supply. I am not even going to mention these numbers, but I would like to know, is there a chart from EPA to go with it for us, as novices?

ASSEMBLYWOMAN KALIK: I would appreciate that.

ASSEMBLYWOMAN MUHLER: It is not much good for us to ask questions on those numbers. Can you just tell us -- and I guess that is what the conclusion says -- that it is within their guidelines of what parts are allowed per billion in the water supply?

ASST. COMMISSIONER TYLER: The numbers we have seen from our recent testing, is that what you are referring to?

ASSEMBLYWOMAN MUHLER: Yes.

ASST. COMMISSIONER TYLER: Okay. I will prepare a chart especially for all the recent testing that has been done there, and I will provide it to the Committee.

ASSEMBLYWOMAN MUHLER: I would like to know how close or how far it is from the norm.

ASST. COMMISSIONER TYLER: I probably should have done that.

ASSEMBLYWOMAN MUHLER: Just for our information, if you could.

ASST. COMMISSIONER TYLER: Okay. As a matter of fact, so far, you are not going to see anything but non-detects, or traces that need to be confirmed. That confirmatory work is under way.

ASSEMBLYWOMAN FORD: Right. And you would not normally expand the ring of wells that you put on one of these sites, unless there was a reason, unless you found something, would you?

ASST. COMMISSIONER TYLER: Well, in this case we might have pushed to that point if we didn't have the surface water and groundwater situation that we have there. We were able to monitor the streams and some potable wells in the area. I am really counting on the Dames and Moore work that the Navy has contracted for, to eliminate any need for State expenditures. It gets pretty expensive drilling wells and taking samples.

ASSEMBLYWOMAN MUHLER: Thank you.

ASSEMBLYWOMAN FORD: Assemblywoman Walker.

ASSEMBLYWOMAN WALKER: When did the hazardous waste sites at the Lakehurst base first come to the attention of the State DEP?

ASST. COMMISSIONER TYLER: To the best of my knowledge, some individual sites and spills were reported to us as early as 1979. There are reports in our files, at least dating back to that point, that indicate spills and cleanups. The comprehensive assessment of the facility which is in the Navy's initial assessment study was submitted, I believe, in the late months of 1983. The status report on that, the the attached EPA comments on that status report, were sent to my office in response to an inquiry we made in June or July -- excuse me, July -- of 1985.

ASSEMBLYWOMAN WALKER: What way does the Navy use to communicate with you? How was this information transmitted, and by whom?

ASST. COMMISSIONER TYLER: Well, I think in terms of formal submission of environmental reports, they come to us in two ways. One, through the United States Environmental Protection Agency. Really, in terms of red flags at high levels, it would have to come in that way. There are individual communications on a very regular basis, with many different members of the Department staff. We have a full gamut of environmental regulatory programs. I am pretty sure that this base has an addition to a water quality discharge permit. It probably has some diversion wells for water supply, which require permits. It has air pollution control permits. It may even have a solid waste permit. I am not sure; I would have to check on that for you.

But, there is a regular and sustained contact on an individual item basis.

ASSEMBLYWOMAN WALKER: What specific information have you received concerning these sites from the Navy?

ASST. COMMISSIONER TYLER: Well, the Committee staff has had the opportunity to see all of our files. In fact, that is a luxury I haven't even had personally. But, we have received the two reports I referred to earlier, EPA's comments on the latter report, and on the individual spills, on some cases, an extensive amount of information, and on others, just a phone call report that a spill had occurred and a cleanup had resulted.

ASSEMBLYWOMAN WALKER: So, sometimes you get phone communications. Do you log those when they come in?

ASST. COMMISSIONER TYLER: Today -- I can't speak for DEP historically -- when a call comes to our action line, yes, it is logged and recorded.

ASSEMBLYWOMAN WALKER: Did EPA ever provide your agency with any information on hazardous dumping at this facility, or is that coming just from personal contacts and this one 1983 report? Have you gotten anything besides that? Did the Navy give you phone reports?

ASST. COMMISSIONER TYLER: I'm not sure of the answer to that. I'm sure EPA has provided us with some data on the facility, but I can't tick off what and when.

ASSEMBLYWOMAN WALKER: Do you keep a file about--

ASST. COMMISSIONER TYLER: Several.

ASSEMBLYWOMAN WALKER: And there's nothing in that file?

ASST. COMMISSIONER TYLER: No, I didn't say that. I said, I'm sure EPA has provided us with some information.

ASSEMBLYWOMAN WALKER: But, you don't have that today.

ASST. COMMISSIONER TYLER: I can make a file review if you are looking for a particular piece of EPA information.

ASSEMBLYWOMAN WALKER: I am just trying to get a sense of -- I guess -- the networking between these two agencies, well, really between these three agencies.

ASST. COMMISSIONER TYLER: Okay. I can try to give you--

ASSEMBLYWOMAN WALKER: Did EPA give you that 1983 report that they wrote about Lakehurst?

ASST. COMMISSIONER TYLER: They did not. We received it from the Navy, I believe. We made a request to EPA in May, 1985, for the status report on 44 sites, and the EPA suggested that in this instance we contact the Navy directly. We did that. We wrote to the Navy's environmental engineer. They responded. So, did I ask EPA, or did I ask the Navy? I asked EPA and I got the answer.

ASSEMBLYWOMAN WALKER: You had to get this information via the Navy that EPA--

ASST. COMMISSIONER TYLER: I asked EPA, which is the normal protocol, and they said, "Save time. Call Mr. Gardner directly." So, we wrote him a letter and he wrote back with the report. EPA's comments were next to that report. That was the first time we saw them, and that was in July, 1985, shortly before everyone else got copies of it.

ASSEMBLYWOMAN WALKER: See, it bothers me a little bit that we are relying, in this State, on EPA as our lead agency, and something as important as this didn't come directly to you. You had to request it, A, and B, request it from a third agency.



ASST. COMMISSIONER TYLER: Yes. Again I suggest that EPA would be the best group to respond to that kind of a question. But I can tell you that despite a lot of effort on our part over the last few months, and few years, in fact, I am not 100% comfortable with our relationship with the United States EPA and the United States Department of Defense. It is a different set of circumstances than we face, again, with the chemical industry or any other industry in the State. And it is an uncomfortable situation, especially when people waive security clearances. And again, not to imply that that has happened at Lakehurst; it hasn't. But it did come up in the plutonium case, and it probably will again in a plutonium case. So, again, it is not the same situation for anyone in DEP that we would be in when dealing with an ordinary industrial site.

ASSEMBLYWOMAN WALKER: I have to ask you that question, though, before I can ask the EPA that question.

ASST. COMMISSIONER TYLER: Absolutely. Well, I don't know; maybe--

ASSEMBLYWOMAN WALKER: And right now I am a little concerned about the EPA being the lead agency for something that exists in our State. What does the 1983 report say about -- the EPA report that you got, reporting on the 1981 -- the situation at Lakehurst?

ASST. COMMISSIONER TYLER: It says it is serious, and it says it is a problem from a public health viewpoint.

ASSEMBLYWOMAN WALKER: Well, if the EPA is saying it is really serious, and I read parts of that report, and they are the lead agency, why didn't you go in and do something about it?

ASST. COMMISSIONER TYLER: We did, as soon as we knew about it.

ASSEMBLYWOMAN WALKER: Which was?

ASST. COMMISSIONER TYLER: First of all, we contacted the EPA and the Navy and said, "What's up?" We met with the Navy Base Commander, and his environmental people repeatedly, and we took a full barrage of perimeter sampling.

ASSEMBLYWOMAN WALKER: When did you get that report?

ASST. COMMISSIONER TYLER: We got that report in July, 1985.

DR. BERKOWITZ: The 1984 report.

ASST. COMMISSIONER TYLER: The 1984 report, with the EPA appendix to the 1984 report.

ASSEMBLYWOMAN WALKER: Well, something is really amiss here. If the EPA is the lead agency, and you are getting a 1983 report --

ASST. COMMISSIONER TYLER: 1984.

ASSEMBLYWOMAN WALKER: --in July 1985, based on a 1981 Navy testing procedure, and then the-- What you consider garbage-- This is really amazing to me, especially when the EPA says there are immediate threats to human health in their report, and that is coming to you two years after it was published. And this is our lead agency in New Jersey?

ASST. COMMISSIONER TYLER: For many sites, not just for the Lakehurst Naval Air Station.

ASSEMBLYWOMAN WALKER: All right, let me pass for the moment.

ASSEMBLYWOMAN FORD: Assemblywoman Kalik?

ASSEMBLYWOMAN KALIK: Thank you. I am going to go back a little bit before I go forward.

We are here-- The reason this hearing is occurring is because three million gallons of aviation and jet propulsion and other hazardous wastes have been known to be dumped at Lakehurst. Is that true?

ASST. COMMISSIONER TYLER: Alleged.

ASSEMBLYWOMAN KALIK: Alleged?

ASST. COMMISSIONER TYLER: Alleged to have been dumped at Lakehurst, yes.

ASSEMBLYWOMAN KALIK: As far as you are concerned, and in your own opinion, is it true?

ASST. COMMISSIONER TYLER: I can not form an opinion on that at this point in time. I need the confirmation study that Dames and Moore has been contracted with to do for the Navy.

ASSEMBLYWOMAN KALIK: Okay. Who is going to provide you with this information?

ASST. COMMISSIONER TYLER: The Navy has kept us in--

ASSEMBLYWOMAN KALIK: But the-- But we just-- Miss Walker just went through the whole litany. Okay? You have a DEP report given

to you in 1985 -- from the EPA -- of 1983, from the Navy of 1981. If we follow that line of reasoning, it is now 1985, you are going to get a report from the Navy in 1985, that will go to the EPA in 1987, and it will come to you in 1989, and that is not-- you know. And then, who knows whether that report is going to be it? So, I have a problem, and that is why I wanted to go back before I went forward.

ASSEMBLYWOMAN WALKER: Meanwhile, we could be drinking contaminated water for four years.

ASSEMBLYWOMAN KALIK: Well, that is why I am very concerned--

ASST. COMMISSIONER TYLER: Except that we test it very regularly, and it is not contaminated. Other than that, you might be.

ASSEMBLYWOMAN WALKER: We could.

ASST. COMMISSIONER TYLER: Well, I don't think you could.

ASSEMBLYWOMAN KALIK: Is the dumping of this fuel a routine practice at Lakehurst and other Naval facilities?

ASST. COMMISSIONER TYLER: According to the information we have, it ceased many years ago.

ASSEMBLYWOMAN KALIK: Many years ago -- what? One year, two years, three years, four years, ten years, twelve years, six years?

ASST. COMMISSIONER TYLER: My recollection is the mid-60s. It depends upon the individual practice; again, I suggest you ask the Navy, but my recollection is--

ASSEMBLYWOMAN KALIK: I will. I am asking you because you are here today. I expect to ask-- You were first.

ASST. COMMISSIONER TYLER: Okay. Well, I thought the Navy ought to be here first, as a matter of fact. I think they probably want to be here first, I don't know.

ASSEMBLYWOMAN KALIK: I will ask the same questions, I promise you.

ASST. COMMISSIONER TYLER: In the mid-1960s, to the best of my knowledge.

ASSEMBLYMAN KALIK: In the mid-1960s. Has that fuel and other dumpage been traced?

ASST. COMMISSIONER TYLER: Some of it has been removed.

ASSEMBLYWOMAN KALIK: Has it been traced?

ASST. COMMISSIONER TYLER: Some of it is obviously not removed, and is going to be traced in the Dames and Moore study. That will be a full-site remedial investigation.

ASSEMBLYWOMAN KALIK: How toxic is that fuel that was dumped, and what is the danger, at the moment, of that fuel that had stopped being dumped, according to you, sometime in the 1960s? It has now had over 20 years to seep through the ground and into the ground water, which is why we are here.

ASST. COMMISSIONER TYLER: Right.

ASSEMBLYWOMAN KALIK: I can not argue with you that a report is garbage or a report is not garbage. I am not a chemist, I am not an environmentalist; in fact, I have great difficulty even reading the words, much less trying to understand how they relate to each other. But I can only deal with-- If toxic fuel has been seeping into the ground for 25 years, what is the danger?

ASST. COMMISSIONER TYLER: We don't think there is any at this point. We have done the off-site testing to confirm that. We have some of the results back, and they show no detectable levels of organic contamination; so our suspicion is that our geologists are correct, the material is confined to the upper aquifer and is probably contained around the areas where it spilled. We will get further word on that in the next few weeks, when our lab data comes back, or we will get a definitive report on that when the Dames and Moore report comes back.

I would also suggest that, if I might--

ASSEMBLYWOMAN KALIK: Before you continue-- This data you are waiting for: from where, from whom, and from when?

ASST. COMMISSIONER TYLER: When we became appraised of the EPA position on the early Navy data--

ASSEMBLYWOMAN KALIK: Which was?

ASST. COMMISSIONER TYLER: Which was what you just read to me.

ASSEMBLYWOMAN KALIK: The summer of 1985?

ASST. COMMISSIONER TYLER: Yes, correct. We said, "Enough. We are going to do our own perimeter sampling and make sure that there

is no problem there." And we did our own perimeter sampling, it is in several labs at this point in time and we are waiting for the results. We have a few back; they show no detail.

ASSEMBLYWOMAN KALIK: Again, it is my understanding -- and it is by hearsay, you have to understand -- but it is my understanding that these tests take between two and three weeks.

ASST. COMMISSIONER TYLER: Sometimes. It depends on: one, the backlog at the laboratories; and two, more importantly--

ASSEMBLYWOMAN KALIK: Wait, wait. If we are dealing with a problem of such danger--

ASST. COMMISSIONER TYLER: What danger?

ASSEMBLYWOMAN KALIK: The danger of this contamination of this groundwater. Why would we want to wait until October, if we got the reports in July?

ASST. COMMISSIONER TYLER: We took the samples in July.

ASSEMBLYWOMAN KALIK: Excuse me?

ASST. COMMISSIONER TYLER: We took the first round of samples in July, or August. It takes a little bit of time to get out there, mobilize via the contract, and all that. The first results have come in. They are non-detect. We expect imminently, like today, tomorrow or the next day, the rest of the results.

ASSEMBLYWOMAN KALIK: So that by the time we have our next hearing, we should be able to have a comparable--

ASST. COMMISSIONER TYLER: If I get them sooner, you will have them sooner.

ASSEMBLYWOMAN KALIK: --a comparable report to the one that both you and the Navy claim is nonsense. We could have it so that I could read the numbers and be able to go--

ASST. COMMISSIONER TYLER: If we have the numbers, you will have them.

ASSEMBLYWOMAN KALIK: Okay. What does the EPA have to say about the danger level of that particular--

ASST. COMMISSIONER TYLER: You will have to ask EPA. I am not being wise; I just do not know.

ASSEMBLYWOMAN KALIK: Okay. Did they make a report to you on it?

ASST. COMMISSIONER TYLER: We have the fifth team analysis of the 1984 facility status report on 44 sites and it contains several statements that indicate that their fifth consultant was concerned.

ASSEMBLYWOMAN KALIK: Wait, I have got to hear that again. That their consultant was, in fact, concerned by the levels of whatever that is in the groundwater, and this is other than--

ASST. COMMISSIONER TYLER: You might remember the consultant was probably looking at the same early data that you have been looking at today, that we have questioned. (next statement inaudible)

ASSEMBLYWOMAN KALIK: They would not have done their own testing?

ASST. COMMISSIONER TYLER: I doubt it. They--

ASSEMBLYWOMAN KALIK: They would-- Wait, wait. They would rely on data from 1981 in 1984?

ASST. COMMISSIONER TYLER: To rank a site or to come up with a decision to put a site on the NPL, or to get EPA to put a site on NPL, I would expect it would be an extraordinary case where they do independent sampling. You are dealing with thousands of sites across the country.

ASSEMBLYWOMAN KALIK: You mentioned before that you have problems in your in your relationships, and you are not comfortable with EPA. Let me tell you what my problem is right now. Not only in Lakehurst, but I know that the EPA is the lead agency in a lot of our toxic waste sites. We are depending on their data to rank these sites, and to in fact tell us whether they are dangerous or they are not dangerous.

ASST. COMMISSIONER TYLER: I think you can count on EPA to do that well.

ASSEMBLYWOMAN KALIK: --So now, you are saying to me that they can not do it well.

ASST. COMMISSIONER TYLER: Oh yes. What I pointed out in my remarks and in response to your questions is that there is a particularly difficult communication problem when you are dealing with the United States Department of Defense, and its various members: Air Force, Army or Navy. It is different, I think, than any other site--

ASSEMBLYWOMAN KALIK: So then what you are saying is, the EPA, as the lead agency in identifying sites other than military installations, has reasonable figures or believable figures in dealing with military installations-- I am not trying to--

ASST. COMMISSIONER TYLER: When the questions arose--

ASSEMBLYWOMAN KALIK: --lead you, I am just trying to do it--

ASST. COMMISSIONER TYLER: --in our minds, in early July of this year, we took the responsible steps. We pulled all the data for the drinking water at the municipal well fields, and we went out and did our own round of samples. I think that was a responsible and quick response to a concern. Separate and apart from that, I am not happy totally, with the communications provided to us by the EPA and the Department of the Defense. I would suggest that is a function, dealing with the military and with other important national interests, not a recalcitrant attitude on anyone's part. The Congress has authorized the Federal Installation and Restoration Program. Thousands of bases across the country are undergoing an analysis, and they are all marching to a different national agenda than, perhaps, the State of New Jersey has. When we thought there was a reason to intervene in that agenda, we did so and we did so forcefully.

ASSEMBLYWOMAN KALIK: Again, it may be true that they are dealing with thousands of other military installations; however, they do not have the population problem that we have in New Jersey; they do not have the toxic problem that we have in New Jersey; and we have in fact identified hazardous waste and toxic waste as one of our priorities in the past four years, and here we are in October 1985, first looking into a report that showed figures that were dangerously high, that were then, in fact, recounted by a separate consultant-- a report by the EPA, using the original figures, and if I were in your shoes, I would have said when I got those conflicting reports, "Who in fact is true and who is not true?", and I would have done my own reports--

ASST. COMMISSIONER TYLER: But you have the time sequence.

ASSEMBLYWOMAN KALIK: Okay. Now, I see the Navy is here because I recognize them by their uniforms. (laughter) I don't know



if the EPA-- You know, they call me Barbara and you Jackie, and somebody else-- I don't know if there is a representative from the EPA here.

**CAPTAIN DONALD R. EATON:** (speaks from back of room) Well, I am Don Eaton, Commanding Officer of Navy Lakehurst--

**ASSEMBLYWOMAN KALIK:** From EPA?

**CAPTAIN EATON:** No, ma'am, from NAEC Lakehurst.

**ASSEMBLYWOMAN KALIK:** I recognize that.

**CAPTAIN EATON:** I think you are making a simple problem difficult on this line of questioning right now--

**ASSEMBLYWOMAN KALIK:** I may be, but--

**CAPTAIN EATON:** --but we have documents--

**ASSEMBLYWOMAN KALIK:** --if you'll let me finish my statement, okay?

What I am saying is, I am going to ask a series of questions, and I am going to ask the same questions of the Navy, and I am going to ask the same questions of the EPA. So, you know-- You'll have your opportunity to answer them, but I would like DEP to answer them because they happen to be here first.

What toxic chemicals did EPA identify in Lakehurst groundwater?

**ASST. COMMISSIONER TYLER:** None.

**ASSEMBLYWOMAN KALIK:** None? No, I didn't say that; I said, what toxic chemicals did the EPA identify in Lakehurst groundwater?

**ASST. COMMISSIONER TYLER:** None that I know of.

**ASSEMBLYWOMAN KALIK:** Okay. From the EPA report -- and I will read it to you if you would want -- "The maximum pollutant levels reported on pages C-7 and C-8 indicated that levels of" -- and I am going to have to spell it, because I can not even pronounce it -- acrylonitrile -- I have got my prompter here -- dichlorobenzidine, benzene, and chloroform all exceed established EPA water quality standards by as much as five order of magnitude. All of these compounds are carcinogenic, and their presence in such high amounts represents a concern for human health."

ASST. COMMISSIONER TYLER: One, that was not EPA identifying the problem. That was a review by EPA of the data that we have already been discussing.

Two, before we ever received that data -- and I think you have to put yourselves a little bit in our mental set -- in 1981 or 1982, we got a letter that said, "We have got some data here, but it is garbage." We didn't get that data until the end of 1983, so we had already known it was garbage for a year and a half. We later got a report from EPA that relied on the same data, and notwithstanding that, drew some possibly frightening conclusions. Based on that, we reacted with a full round of field tests. That is the time sequence I would offer of what happened here.

ASSEMBLYWOMAN KALIK: And I understand what you are saying--

ASST. COMMISSIONER TYLER: Okay.

ASSEMBLYWOMAN KALIK: --but I am compelled to ask these questions because they are your lead agency, not only for the military installation, but as I expressed to you, my concern because they are the lead agency in other cleanup sites as well. I am wondering whether we should rely on this information on a continuing basis.

ASST. COMMISSIONER TYLER: We have already answered that.

ASSEMBLYWOMAN KALIK: What I am doing is putting more work on your head, but by the same token, I am scared to death to rely on information that has to be told to me four years later is garbage. It makes me very nervous, so-- Just what did the 1983 EPA report say about the presence of benzene and drinking water at Lakehurst?

ASST. COMMISSIONER TYLER: Well, I guess we can read it to -- you can read it. Jorge, do you want to find it? Can you tell him what page it is on? (laughter)

ASSEMBLYWOMAN KALIK: I don't have it opened.

DR. BERKOWITZ: The 1983 report or the 1984 report?

ASST. COMMISSIONER TYLER: It could not have said much good about benzene. I can say that.

ASSEMBLYWOMAN KALIK: Well, why don't you do both? Why don't you give me the 1983 reported figure and the 1984 reported figures? I will take whatever figures you've got.

ASST. COMMISSIONER TYLER: The numbers?

ASSEMBLYWOMAN KALIK: I want to know-- What did the 1983 EPA report--

DR. BERKOWITZ: Five parts per billion across the board.

ASSEMBLYWOMAN KALIK: Excuse me?

DR. BERKOWITZ: Five parts per billion.

ASSEMBLYWOMAN KALIK: Five parts per billion across the board. What is the effect of benzene on the quality of drinking water, and the people who drink that water?

DR. BERKOWITZ: Benzene is a carcinogen.

ASSEMBLYWOMAN KALIK: And? Benzene is?--

DR. BERKOWITZ: A carcinogen.

ASSEMBLYWOMAN KALIK: And? What does that mean?

DR. BERKOWITZ: Carcinogen? It is cancer producing.

ASSEMBLYWOMAN KALIK: What did the EPA report say about the presence of chloroform in drinking water at Lakehurst?

ASST. COMMISSIONER TYLER: The number, again, is not EPA. It says two, six and a half, and four and a half, and a couple of zeroes.

ASSEMBLYWOMAN KALIK: What is the effect of chloroform on the people who regularly ingest it in their drinking water, in such quantities?

DR. BERKOWITZ: I suspect it is also a carcinogen.

ASSEMBLYWOMAN KALIK: And therefore it would be a cancer-causing--

DR. BERKOWITZ: Yes, it would, if it were there.

ASSEMBLYWOMAN KALIK: What is-- I can't pronounce it.

DR. BERKOWITZ: Dichlorobromomethane?

ASSEMBLYWOMAN KALIK: Dichlorobenzidine? And what did the EPA say about the presence of this chemical in Lakehurst drinking water?

ASST. COMMISSIONER TYLER: The 3,3-dichlorobenzidine?

ASSEMBLYWOMAN KALIK: Yes.

ASST. COMMISSIONER TYLER: It said there was none in the Boro of Lakehurst well field, and a number of other wells there; and it found there were 42 parts per billion in one test well, if I am looking at the right line. Oh, and it is 63 in another test well.

ASSEMBLYWOMAN KALIK: And is that, according to this which says it is five-- by as much as five orders of magnitude--

ASST. COMMISSIONER TYLER: Again, I feel compelled to keep pointing out--

ASSEMBLYWOMAN KALIK: And by all means, keep pointing it out.

ASST. COMMISSIONER TYLER: --it is not there, we have confirmed that it is not there, and I am really concerned for the readers of the press in Lakehurst tomorrow that are going to think it might be there because of all this questioning. It is not there, we have tested repeatedly, and it is wrong to convey that impression, I am sorry.

ASSEMBLYWOMAN KALIK: I understand--

ASST. COMMISSIONER TYLER: Okay.

ASSEMBLYWOMAN KALIK: --and I heard you say that.

ASST. COMMISSIONER TYLER: I just wanted to repeat it.

ASSEMBLYWOMAN KALIK: But I do not have your figures. The only figures I have in my possession at this time are those figures, and I cannot go on the figures that you do not have, because you do not have them.

ASST. COMMISSIONER TYLER: I don't have them with me today; we certainly have them--

ASSEMBLYWOMAN KALIK: You said you don't have them.

ASST. COMMISSIONER TYLER: No, I said we would make them available to you immediately after the--

ASSEMBLYWOMAN KALIK: Excuse me. You said that the tests were not done, and that you would have those figures in the next couple of days.

ASST. COMMISSIONER TYLER: I thought you were talking about the Princeton Aqua Sciences report. I am sorry; we have a few of the early results back, which I can give you right away; and you are right, the rest of it, we are waiting.

ASSEMBLYWOMAN KALIK: So that you can't tell me that this is not true, because you don't have the figures.

ASST. COMMISSIONER TYLER: No. As far as the Lakehurst municipal well, I can tell you that it is not true. That is what I

have been saying repeatedly. We have tested that well repeatedly. These contaminants are not there, and those tests were made available to your staff. They were done under the Safe Drinking Water Act. They were reported to us from certified labs, and we did confirmatory testing. It is wrong to convey the impression that these are there. They are not there.

ASSEMBLYWOMAN KALIK: I am not conveying that impression.

ASST. COMMISSIONER TYLER: And you have data that says they are not there.

ASSEMBLYWOMAN KALIK: I am asking you-- I am asking you-- I am not conveying that impression. I do not wish to make the people of Lakehurst hysterical in any way, shape or form.

ASST. COMMISSIONER TYLER: Okay, good.

ASSEMBLYWOMAN KALIK: We are trying, in fact, to find out what the truth is, what the contaminant level is, whether it is dangerous or it is not dangerous. At the moment, I am assured by your figures -- which I have not seen --

ASST. COMMISSIONER TYLER: Well, we made them available to your staff.

ASSEMBLYWOMAN KALIK: --but you are conveying to me that--

ASST. COMMISSIONER TYLER: I'm sorry. You have those well field-- The 280 sampling data from the municipal well field, which was offered and discussed in sessions with Mark and with your--

ASSEMBLYWOMAN KALIK: But in order to get the EPA and the Navy to answer the same questions, I need your answers on these questions, and that is why I am asking these questions.

ASSEMBLYWOMAN FORD: That's--

ASSEMBLYWOMAN KALIK: What is the effect of 3,3-dichlorobenzidine on people who drink water?

ASST. COMMISSIONER TYLER: I don't know. I really don't.

ASSEMBLYWOMAN KALIK: Is it a carcinogenic?

ASST. COMMISSIONER TYLER: According to the report, it is.

ASSEMBLYWOMAN KALIK: According to which report?

ASST. COMMISSIONER TYLER: I am not a doctor, I really don't know.

ASSEMBLYWOMAN KALIK: According to which report?

ASST. COMMISSIONER TYLER: The questionable report that was submitted to us in late 1983.

ASSEMBLYWOMAN KALIK: Is that the EPA report, or the Navy report?

ASST. COMMISSIONER TYLER: It was a Navy contract document.

ASSEMBLYWOMAN KALIK: A Navy contract-- But submitted to you by the EPA?

ASST. COMMISSIONER TYLER: I have no idea.

DR. BERKOWITZ: We got it from the Navy.

ASSEMBLYMAN HENDRICKSON: I can shed some light on this.

ASSEMBLYWOMAN KALIK: Okay. Hang on for just a minute.

ASSEMBLYMAN HENDRICKSON: It is in my district.

ASSEMBLYWOMAN KALIK: Hang on.

The EPA report based on the Navy figures states that, how much of 3,3-dichlorobenzidine is in the water?

ASST. COMMISSIONER TYLER: You're asking what the levels were. We are reading to you from the Navy's report, which is the only data other than our own that I am aware of in any of these reports.

ASSEMBLYWOMAN KALIK: Exactly. That's the only data I'm aware of.

ASST. COMMISSIONER TYLER: Again, provided the Safe Drinking Water Act data. And again, by the time we got EPA's comments in July of this year, we already had done the regular Safe Drinking Water Act process. The municipal well field was simply a matter of checking and seeing what the results were. It was over before it started. There is no crisis in the Lakehurst municipal water department.

ASSEMBLYWOMAN KALIK: If in fact that report had any merit, if in fact-- What extent-- in other words, is one time acceptable, two times acceptable-- When does it become acceptable and not acceptable?

ASST. COMMISSIONER TYLER: If you are asking about this report--

ASSEMBLYWOMAN KALIK: No, I am asking about--

ASST. COMMISSIONER TYLER: In general?

ASSEMBLYWOMAN KALIK: No, I am asking about a specific substance. I am asking about the 3,3-dichlorobenzidine.

ASST. COMMISSIONER TYLER: What the safe level is?

ASSEMBLYWOMAN KALIK: Yes.

ASST. COMMISSIONER TYLER: You can't quote from the same inaccurate report; maybe they got this one right. It says .00169 -- EPA criteria for pollutant PPB.

ASSEMBLYWOMAN KALIK: And how much greater was--

ASST. COMMISSIONER TYLER: I am not that good at that. Jorge, you want to do the math?

Again, the non-real number is five orders of magnitude.

ASSEMBLYWOMAN KALIK: Which means what?

ASST. COMMISSIONER TYLER: One hundred thousand times.

ASSEMBLYWOMAN KALIK: What, a hundred thousand times?

ASST. COMMISSIONER TYLER: If you believe it. There is no reason to.

ASSEMBLYWOMAN KALIK: Again, I will repeat for your sake and for the sake of the people in Lakehurst: You have stated that this report is not true. I do not, in fact, wish to make them hysterical.

ASST. COMMISSIONER TYLER: Good.

ASSEMBLYWOMAN KALIK: You have said their drinking water is drinkable--

ASST. COMMISSIONER TYLER: Yes.

ASSEMBLYWOMAN KALIK: --And potable--

ASST. COMMISSIONER TYLER: Yes.

ASSEMBLYWOMAN KALIK: --And safe--

ASST. COMMISSIONER TYLER: Yes.

ASSEMBLYWOMAN KALIK: Okay. And I am saying that because I don't want to--

ASST. COMMISSIONER TYLER: There is one thing I checked before I came over here--

ASSEMBLYWOMAN KALIK: Okay.

ASST. COMMISSIONER TYLER: --and testified. I went over that with the Director of Water Resources--

ASSEMBLYWOMAN KALIK: And I am repeating it--

ASST. COMMISSIONER TYLER: --before he went home.

ASSEMBLYWOMAN KALIK: And I am repeating it because I want to make sure that that is on record, because I don't want get them hysterical, either.

ASST. COMMISSIONER TYLER: Then I guess I-- How many of these pollutants-- There are about 100 on this. You want me to go through each one? You want me to just--

ASSEMBLYWOMAN KALIK: Well, I am just going to go through a few, if you don't mind.

ASST. COMMISSIONER TYLER: What is the point?

ASSEMBLYWOMAN KALIK: Because I want to. Because I want to ask the EPA the same questions--

ASST. COMMISSIONER TYLER: You have that prerogative.

ASSEMBLYWOMAN KALIK: I want to ask the Navy the same questions, and because the EPA is your lead agency, and I want to make sure that if they are your lead agency in military installations and these figures are wrong, that we are not dealing with wrong figures when we go to some other substance.

ASSEMBLYMAN HENDRICKSON: Could we submit the S&R Analytical Incorporated report as of August 20, from the Hazardous Site Weighing Commission that was commissioned--

ASSEMBLYWOMAN KALIK: We can do anything we want, Mr. Hendrickson--

ASSEMBLYMAN HENDRICKSON: --in the County of Ocean to take care of--

ASSEMBLYWOMAN KALIK: --when it is your turn--

ASSEMBLYMAN HENDRICKSON: --the people of Lakehurst.

ASSEMBLYWOMAN KALIK: --to ask questions. Right now, it is my turn.

ASSEMBLYWOMAN FORD: Wait a second. I am the Chair of this hearing. Right now, Assemblywoman Kalik has the floor, and I said that when she was done, Mr. Hendrickson would be next, and that is the order we are going to go in.

ASSEMBLYWOMAN KALIK: I am just going to ask one more question. Obviously, we are going to get the same answers, so we could, in fact, go down 100 chemicals, but we won't.



On what body of groundwater data has EPA recently relied in nominating the Lakehurst Naval Air Engineering Center to the National Priorities List of the Superfund?

ASST. COMMISSIONER TYLER: I don't know, exactly.

ASSEMBLYWOMAN KALIK: Would you guess? Is it on the basis of your reports? Is it on the basis of the Navy reports?

ASST. COMMISSIONER TYLER: I don't know.

ASSEMBLYWOMAN KALIK: Is it on the basis of the EPA reports?

ASST. COMMISSIONER TYLER: I don't know.

ASSEMBLYWOMAN KALIK: Is it on the basis of the 1981 reports? The 1983 report? The 1984 report, or the testing that you did that you do not have the answers to yet?

ASST. COMMISSIONER TYLER: It could be any of those.

ASSEMBLYWOMAN KALIK: Nonetheless, they have nominated it to be on the priorities list.

ASST. COMMISSIONER TYLER: You don't need anywhere near this much data, accurate or not, to list a site on the NPL.

ASSEMBLYWOMAN KALIK: Okay. Thank you.

ASSEMBLYWOMAN FORD: Assemblyman Hendrickson?

ASSEMBLYWOMAN HENDRICKSON: Lakehurst Naval Air is in the Ninth Legislative District, and with the Lakehurst potable water-- Is it not monitored as all potable public water supplies are?

ASST. COMMISSIONER TYLER: Yes, it is.

ASSEMBLYMAN HENDRICKSON: Does that mean constantly that those monitoring reports are available to the public?

ASST. COMMISSIONER TYLER: Absolutely.

ASSEMBLYMAN HENDRICKSON: Prior to this hearing?

ASST. COMMISSIONER TYLER: Yes, they were.

ASSEMBLYMAN HENDRICKSON: And perhaps the Ocean County Health Department should have been really contacted, rather than a public hearing to have scare tactics when benzene and things like that are mentioned at a public hearing, and that some reports, perhaps, could be off because of contaminated vessels that were used, perhaps in a hurry, some individual-- And is that not why we usually go out in such an emergency, if you will, and have more than one--

ASST. COMMISSIONER TYLER: Yes.

ASSEMBLYMAN HENDRICKSON: --analysis made--

ASST. COMMISSIONER TYLER: Absolutely.

ASSEMBLYMAN HENDRICKSON: -- And is that not what has been done in Lakehurst constantly?

ASST. COMMISSIONER TYLER: Yes, absolutely; absolutely.

ASSEMBLYMAN HENDRICKSON: Can we put to rest that there was one report that might have been wrong?

ASST. COMMISSIONER TYLER: That was wrong, absolutely wrong. And all of the latest data--

ASSEMBLYMAN HENDRICKSON: And could that please be reported in full, typed letters to the people?

ASST. COMMISSIONER TYLER: I think we are going to have to after this hearing today, as a matter of fact.

ASSEMBLYMAN HENDRICKSON: I would refer to the S&R--

ASSEMBLYWOMAN FORD: Just for the record, I object to the comment.

ASSEMBLYMAN HENDRICKSON: --Analytical Incorporated, Springdale, Cherry Hill-- to me, as of August 20, the complete report, and the report that the Lakehurst Naval themselves made when a lot of us were there to listen because of the concerns for the people of Lakehurst. I think it is the wrong thing to do, to bring it at a public hearing this way, to scare those people after so much has been done to calm. Thank you.

ASSEMBLYMAN ROD: Madame Chairman?

ASSEMBLYWOMAN FORD: Mr. Rod.

ASSEMBLYMAN ROD: Let me tell you, Commissioner, I consider this a very serious situation; very serious, is my personal feeling. I read this -- and now that I have it, I hope that I can get a complete copy and go right through it, page by page -- I am looking at the parachute jump, Site No. 34. It says about two million gallons of contaminated fuel was discharged in the area. Then you refer to the way it was dumped-- The driver sometimes dumped this whole thing in one section; stopped the truck and just unloaded this whole thing. Let's be realistic. The potential contamination in this area, the potential contamination, is very, very high.

ASST. COMMISSIONER TYLER: I gave it a 10 before, when you asked me.

ASSEMBLYMAN ROD: Yes. Very high. And I think it is something that we really have to stay on top of--

ASST. COMMISSIONER TYLER: Absolutely.

ASSEMBLYMAN ROD: And we are really going to have to-- I mean, I get a report-- What really upsets me is to get a report that says 1983 -- and I am from the Ninth District too, Assemblyman, and I live very close to Lakehurst -- and what really aggravates me is that we have a report that says 1983, and here we are, two years later -- two years later -- trying to address this problem. The thing is, two million gallons of fuel -- that's a lot of fuel, Commissioner; don't you think so?

ASST. COMMISSIONER TYLER: There is no question it deserved a 10 as a potential problem. There is no question in anyone's mind that remedial action needs to be done and will be done at the site. The report you are reading from, I believe indicates that those are estimates based on discussions, and what you have is a worst-case scenario, so you can not rely on the specific number. But I am not arguing. There is absolutely a problem there, and as far as I know, the Navy is totally committed to remediating the problem and we are totally committed to watching the process and making sure it happens.

ASSEMBLYWOMAN MUHLER: May I ask a question?

ASSEMBLYWOMAN FORD: Assemblywoman Muhler.

ASSEMBLYWOMAN MUHLER: I am concerned, and unless I am mistaken about the soil in that area, the permeability is rather rapid as compared to other parts of the State. Are there places there, areas that could be safe to hold any kind of contamination? Is there any clay base at all, or is it basically peat and sand and soil that--

ASST. COMMISSIONER TYLER: There is a separation between the upper and lower aquifers. The upper aquifer moves very parallel to the surface, and our geologists believe that the discharge from that aquifer is to the surface streams. Now, that is a benefit in the sense that there are two kinds of contamination that we really have to worry about in hazardous waste cases, as a general rule. The first are

volatile organics; the second, things like persistent pesticides and heavy metals. Typically, what happens is, the heavy metals, and those kinds of contaminants, are absorbed, or adsorbed, on soil particles and stay relatively near the site. Things like PCBs and dioxins are almost not mobile at all in soil; they have a very high affinity for the soil matrix. The volatiles are what move in the water. I don't know if water column is the right term, but in the water to the discharge point. Typically, again what happens is, in any short reach of the stream or river, the volatiles evaporate, so they are not a problem in surface waters. So you have natural protection that surrounds the Lakehurst site that is fortunately working in our favor, in this case.

ASSEMBLYWOMAN MUHLER: Is there any consideration on your part requesting containment, such as the slurry they are planning in Lone Pine?

ASST. COMMISSIONER TYLER: It is premature to answer that. I would expect to see things like that at sections of the site.

ASSEMBLYWOMAN MUHLER: How long a time do you think it is going to take to remove the materials from the other 60-some sites?

ASST. COMMISSIONER TYLER: Many years. Many, many years. You are talking about one of the reasons you can not just clean up everything immediately. This is a multi-million dollar construction project that will go on for many decades, I would expect. The pumping and treating of groundwater there will at least be a 25 -- a generation, in my opinion. To qualify that, I am not a geologist and I have only had a superficial look at it, but based on our experience, that would be my estimate at this point.

ASSEMBLYWOMAN MUHLER: Okay. Near that -- and I should say in between that I am enlarging the picture a little bit, though -- the Manasquan River, the planned reservoir sits between Lakehurst and Earle Ammunition Depot.

ASST. COMMISSIONER TYLER: We have done extensive groundwater and surface water studies of all the potential discharge points into the Manasquan. The State Water Authority is probably a better resource now than I to document that for you. But we believe that we have eliminated, or are on a schedule to eliminate, all possible problems

there, and we don't think that the Lakehurst site could impact that reservoir in any way.

ASSEMBLYWOMAN MUHLER: What about the Earle Ammunition Depot site?

ASST. COMMISSIONER TYLER: The Earle site primarily drains in the opposite direction. There is a small section of it that drains toward the Manasquan. We have had perimeter sampling done and in-stream sampling done; I can't tell you the results, but no one jumped up and down and said, "We have"-- I believe they are relatively low; I can check for you.

The-- I don't have--

ASSEMBLYWOMAN MUHLER: I would be interested in that. My house is downstream from Earle.

ASST. COMMISSIONER TYLER: Well, I don't think any of the waste sites on the Earle Naval Station are in that quadrant that drains. I am doing this off the top of my head; I did not review the Navy's case at Earle.

ASSEMBLYWOMAN FORD: How many sites are there at Earle? Do you know?

ASST. COMMISSIONER TYLER: I would really have to guess. I'm sorry, I really do not remember. I think, either seven-- Seventeen sticks in my mind.

ASSEMBLYWOMAN MUHLER: So the area you would go to protect first, obviously, if what you say -- and I certainly believe it is the case -- is the underground aquifers, then, because of the materials sitting in the kind of soil that they are in.

ASST. COMMISSIONER TYLER: Yes. Really, that is the only vector that could impact the public health at these kinds of facilities.

ASSEMBLYWOMAN MUHLER: How do you think -- and I know we have run into this with every other problem that we have had-- Where do think we are going to put that material, or the Navy is going to, when they remove yards and yards of contaminated soil? How do we dispose of it after that, or how do they dispose of it?

ASST. COMMISSIONER TYLER: Well, a lot of the material will be treatable, and disposed of immediately on-site.

ASSEMBLYWOMAN MUHLER: It is treatable?

ASST. COMMISSIONER TYLER: Yes, for example, the Aviation Fuel Recovery Program that I spoke about earlier is something that you can -- we do it at many sites, either in an air-stripping containment operation, or in an carbon absorption unit. You can take that organic matter-- It is almost the same treatment you would do in a water supply situation on the way in.

With respect to some of the soils, they may be treatable on-site with either microbial agents or roasting incineration. For example, at the GROVS site in Gloucester County, we proposed to build an on-site incinerator to incinerate waste oils, which some of the materials, I guess, on this site, would be like that, and some of the soils could be done. And the rest of it, I would expect a good chunk of contaminated soil, is going to have to be contained and protected.

ASSEMBLYWOMAN MUHLER: Since we have that know-how, do you think there is any--

ASST. COMMISSIONER TYLER: --at least in the short run.

ASSEMBLYWOMAN MUHLER: --possible agreement of working together with private sites and Navy sites or whatever, to decontaminate some of the soils we have, or is that too--

ASST. COMMISSIONER TYLER: I was doing pretty well at the private sites; I am having trouble with the Navy so, who knows? I'm not sure if I can answer that. It gets really complicated.

ASSEMBLYWOMAN MUHLER: But the expertise is there, to at least treat a fair amount of it on-site.

ASST. COMMISSIONER TYLER: Depending on what the study shows. I expect the water contamination, which is what we are most concerned about because that is what can journey off-site -- yes, the technology is there to do that.

ASSEMBLYWOMAN FORD: Assemblywoman Walker?

ASSEMBLYWOMAN WALKER: When it first came to the attention of the DEP that there were so many hazardous waste sites at Lakehurst, what was your immediate response?

ASST. COMMISSIONER TYLER: Personally?

ASSEMBLYWOMAN WALKER: Well, on behalf of your Department.

ASST. COMMISSIONER TYLER: I am not sure. I guess, when I personally was aware of the multiplicity of sites, it was sometime in the spring or summer of this year that we started to talk about Federal facilities and putting together a more or less specialized tracking system for Federal facility compliance. I think in general, we had been meeting with EPA for about the last two years and communicating with EPA for the last two years on Federal facilities in general. In attempting to carve out, I think, a greater role, a greater monitoring role in the State of New Jersey, and more or less had been put in the position that EPA said they were the lead agency, the Federal Department of Defense said they were going to do their own cleanups, and that we could watch or that we had the right to intervene if we wanted to throw in a lawsuit, but it was not, in the beginning, an easy process of communication and cooperation.

ASSEMBLYWOMAN WALKER: Just to repeat, to make sure that I have this straight for the next meeting. You did not receive that report, in any form, until July 1985?

ASST. COMMISSIONER TYLER: As sure as I am sitting here. The EPA comments on the 1981 report that was given to us in 1983 were attached to the 1984 report that was given to us in 1985.

ASSEMBLYWOMAN WALKER: This report here, with the yellow cover--

ASST. COMMISSIONER TYLER: The yellow covered report was given to us at the end of 1983. I thought you were referring to the EPA report, which reviews it. Okay? When you said--

ASSEMBLYWOMAN WALKER: So the end of 1983, you actually got the Department of Navy's report.

ASST. COMMISSIONER TYLER: Yes, we did. Right.

ASSEMBLYWOMAN WALKER: Then what was your response to that? To let the EPA handle it?

ASST. COMMISSIONER TYLER: We continued our discussions, yes, with EPA, and I think we met with the Navy to review the Installation Restoration. And that is not the right name for the Navy-- that is the Army or the Air Force name for that facility. Yes.

ASSEMBLYWOMAN WALKER: So in terms of some total of your specific actions since getting that report in 1983, you met with the Navy and you spoke with the EPA, but there was nothing formal done on that?

ASST. COMMISSIONER TYLER: No. There were quite a few documents exchanged between us and EPA, at least in terms of establishing a process for tracking Federal facilities. I believe we made them available to you.

ASSEMBLYWOMAN WALKER: Have you made those documents available to this Committee?

ASST. COMMISSIONER TYLER: I think so. There are correspondence files in the Division of Waste Management. I will copy them if you don't have them.

ASSEMBLYWOMAN WALKER: Who, then, is assigned to deal with this Lakehurst situation, from your staff?

ASST. COMMISSIONER TYLER: From the Department's perspective, our lead is the Hazardous Site Mitigation Administration and within that group, there is a Section Chief who is responsible for all non-publicly funded cleanups that they are tracking, including enforcement and Federal facilities.

ASSEMBLYWOMAN WALKER: What other enforcement actions have been taken?

ASST. COMMISSIONER TYLER: There have been a handful of minor enforcement actions that I know about, with respect to Lakehurst. One is kind of strange, but happened anyway. The Lakehurst facility filed what is known as a RCRA Part B application, in early-- 1980, when EPA was setting up the RCRA program. That meant that industry and Federal facilities across the country were doing that, under Federal rules that said, "Disclose yourself if you are a storage, treatment or disposal facility for hazardous waste, under the definitions of RCRA." Sometime in 1982, all of those facilities were required to file financial assurance plans with us, that they were well-heeled enough to handle any problems that their storage, treatment or disposal facility might have found, and we did not get that letter from the United States Navy. My staff got to it and issued notices of violation for not



filing those financial assurances with us, that the Navy was solid. And, in fact, they subsequently withdrew the Part B, or Part A, application, which many hundreds of facilities in New Jersey have done. And that is correct, what happened in the EPA regulations, a lot of companies and facilities, in an effort to make sure they were covered, filed those Part A's.

When it got to the point that the Part B was due, they withdrew them, with EPA's full concurrence, and ours, if it was a case we were involved in. That is what happened here. They are not a licensed storage, treatment or disposal facility for hazardous waste. That is not to say they do not have hazardous waste on-site; it is just that the RCRA provisions we are dealing with there are for licensed facilities that can take in waste from other places.

ASSEMBLYWOMAN WALKER: Did the Navy request DEP's certification of the cleanups at the site?

ASST. COMMISSIONER TYLER: Some of them, yes. Absolutely.

ASSEMBLYWOMAN WALKER: Did you do that?

ASST. COMMISSIONER TYLER: Yes. Some of them we even gave a commendation for doing such a good job, yes.

We participated, as I said earlier, in at least 25 cleanups at that site. And we have commended the Navy on many occasions. Our geologists have even worked with the Navy on a portion of that site, in a research effort which we thought was a very pioneering cleanup program.

ASSEMBLYMAN ROD: I have one quick question.

ASSEMBLYWOMAN FORD: Assemblyman Rod.

ASSEMBLYMAN ROD: Do you know how they do-- how they dump these things right now? These fuels? For example, the helicopter refueling area-- I guess, they just dumped the stuff on the ground.

ASST. COMMISSIONER TYLER: They are not doing that anymore.

ASSEMBLYMAN ROD: You know that for a fact?

DR. BERKOWITZ: We have been told that.

ASSEMBLYMAN ROD: Do you get a chance to go on-site and--

DR. BERKOWITZ: Absolutely.

ASST. COMMISSIONER TYLER: Recently, as of late, we have had people on-site. I-- again, that is a specific question that I would be happy to bring back to you an answer, specifically.

ASSEMBLYMAN HENDRICKSON: I have to leave-- again, if I may.

I apologize if I was out of order with Assemblywoman Kalik a little while ago. Just for everyone's information, I think-- I would commend Assemblywoman Ford for having these hearings. Senator Connors and I, the Ocean County Board of Freeholders, the Ocean County Board of Health, meeting with Lakehurst-- We have spent many, many, many many hours. It was very gratifying to be at the public hearing, for our people to see just what is being done. Hindsight is better than foresight; we know over the past 30-40 some-odd years, a lot of bad things have been done. I think these hearings will bring to light some of the things in Lakehurst that I can speak for, are being addressed, I think, to everyone's satisfaction. I was very interested in Mr. Tyler's report, because we still have and haven't-- have been staying on top of the Fort Dix problem, because it is not only Lakehurst, and I was very happy to see the solid waste problem is finally being addressed, because we have been on top of that one also. But I thank you--

ASSEMBLYWOMAN KALIK: Mr. Hendrickson? Which is why I am--

ASSEMBLYMAN HENDRICKSON: --very much for participating here.

ASSEMBLYWOMAN KALIK: --concerned, because as you know, Fort Dix is my neighbor.

ASSEMBLYWOMAN HENDRICKSON: Absolutely. Well, Wrightstown is in ours. That was our concern. Well, thank you very much, and I look forward to the 17th hearing, I believe.

ASSEMBLYWOMAN FORD: Yes, at Lakehurst.

ASSEMBLYMAN HENDRICKSON: Thank you. We will be back there again.

ASSEMBLYWOMAN MUHLER: If you are completed, could I ask a question on the schedule that we have? I think it would be nice, as a member, if I had some idea who was coming-- an agenda, who we were going to question on any given day. The 17th for me is very inconvenient; I have another Committee meeting and it is not nearby.

ASSEMBLYWOMAN FORD: Well, we decided that we wanted to hold the hearings quickly--

ASSEMBLYWOMAN MUHLER: I would hope "we" would have meant the whole Committee. It has not meant me by any means.

ASSEMBLYWOMAN FORD: Well, by that I mean-- I don't think I am going to hold a meeting of the Committee to decide when to hold meetings. We selected them, that was what was available, and--

ASSEMBLYWOMAN MUHLER: Well, on every other Committee I have served on, people usually call to see if they are going to have a majority there, and to see if it is convenient for people. This is the worst time I have ever gone through this kind of schedule.

ASSEMBLYWOMAN FORD: I don't think we are done-- Marie, I don't think we are done questioning. If you want to talk to me about scheduling the hearings, I would be glad to do that with you a little later on, but I know that there are a couple of more people who have some more questions.

ASSEMBLYWOMAN MUHLER: Well, suppose after we are finished with DEP we discuss that, because it would be nice if I had the opportunity to prepare myself to ask questions.

ASSEMBLYWOMAN FORD: Fine.

Just a couple of questions and I think we will be able to finish up. One of the concerns that I have when I first heard about this whole situation was, either overlapping jurisdiction or gaps in jurisdiction, enforcement jurisdiction, with regards to Federal military State regulatory agencies. I know that there is probably a number of Federal and State laws that apply to this, and I am just wondering-- With regard to the cleanup activities at Lakehurst, obviously, we talked about the Superfund application, and I assume that the Superfund laws on the Federal level apply to this base, as a military base. Does the Federal Resource Recovery Act also apply to this?

ASST. COMMISSIONER TYLER: Resource Conservation and Recovery Act?

ASSEMBLYWOMAN FORD: The Resource Conservation and Recovery Act, the Federal one.

ASST. COMMISSIONER TYLER: Yes, as I understand it. I should say that I can not give a legal opinion for the State of New Jersey; only the Attorney General can do that. But, my understanding is, yes, it does.

ASSEMBLYWOMAN FORD: Does the New Jersey Water Pollution Control Act apply also to this?

ASST. COMMISSIONER TYLER: In part, at least, for sure, by virtue of the Federal Water Pollution Control Act, now the Federal Clean Water Act, which specifies that Federal installations -- I believe, I have looked at a number of Federal laws yesterday -- but I think it says, "must comply with local law." However, the Federal Clean Water Act does not apply to groundwater. It only applies to surface water, so that the portions of the State act that pertain to groundwater-- and I am doing it off the cuff--

ASSEMBLYWOMAN FORD: Would pick up where the Federal leaves off?

ASST. COMMISSIONER TYLER: Well, if independent State jurisdiction can be found over Federal facilities, and that is the question mark that I mentioned earlier.

ASSEMBLYWOMAN FORD: So, there is a conceivable gap right there.

ASST. COMMISSIONER TYLER: In jurisdiction, yes. I think Congress would have to cure it. They may have cured it, by the way, in the 1984 Solid and Hazardous Waste Act Amendments to RCRA, but that program is still totally under the control of the Federal Environmental Protection Agency.

ASSEMBLYWOMAN FORD: Does the New Jersey Spill Fund Act apply to this?

ASST. COMMISSIONER TYLER: I don't know, and I would prefer not to answer if I did know. Fortunately, I don't know, so I can say I don't know. I suggest that discussions like that, where you start to get near enforcement strategies, ought to be either off the record or in executive session with our attorneys, if you wouldn't mind.

ASSEMBLYWOMAN FORD: The other thing that concerns me is, what control on a Federal or State level do we have against the

operation of the military bases? Are there Federal and State laws which would control their disposal practices in terms of the impact upon the public health, and again, speaking theoretically, not assuming that there have been any violations, or whatever?

ASST. COMMISSIONER TYLER: My understanding is, the Federal Clean Air Act, the Federal Clean Water Act, and at least the earlier adopted portions of RCRA, provide that State and local law governing environmental protection issues apply. What I said in my opening remarks was, our lawyers have looked at some recent Federal District Court decisions that hold that a Federal Waiver of Sovereign Immunity will be very narrowly construed, and very strictly construed for Federal facilities.

ASSEMBLYWOMAN FORD: In other words, in the Federal Waiver of Sovereign Immunity, the military installation, as a Federal part of the kingdom, so to speak, is "hands off" for State agencies.

ASST. COMMISSIONER TYLER: Well, they said there is some opportunity for regulation.

ASSEMBLYWOMAN FORD: Except where it is opened up by the sovereign.

ASST. COMMISSIONER TYLER: Yes, that's right.

ASSEMBLYWOMAN FORD: Has Lakehurst, or any other military installation, challenged New Jersey's or DEP's ability to regulate these types of activities?

ASST. COMMISSIONER TYLER: I think the way I would phrase the answer to that is, we have not yet filed a suit against Lakehurst which would compel a decision on the issue. I don't think--

ASSEMBLYWOMAN FORD: You haven't exerted any type of enforcement activity in this context?

ASST. COMMISSIONER TYLER: No, I wouldn't say that, because we have. We have exerted a considerable amount of activity in dealing with the installation in attempting to negotiate a tri-party agreement between EPA, DOD or USN, and the State of New Jersey. At some point in the process, we may be dissatisfied, but I have to tell you at this point again, the Navy is proceeding with a complete installation program, and that is what you would sue for. If you can nail down the

schedule and some of the particulars, that is the result you want. So, probably the test of State jurisdiction against Federal facilities will occur somewhere else, rather than at Lakehurst.

ASSEMBLYWOMAN FORD: Are you in the process of developing an opinion as to the extent to which your agency can regulate military installations?

ASST. COMMISSIONER TYLER: Not a formal one, no.

ASSEMBLYWOMAN FORD: No one has consulted, for example, with the Attorney General?

ASST. COMMISSIONER TYLER: Yes; informally we have had many discussions, as a matter of fact. For example, we signed a consent agreement in terms of exerting jurisdiction. We signed a consent agreement under the State Solid Waste Act with Fort Dix. That was the Landfill Corrective Action Program we talked about earlier. We asserted our jurisdiction there by signing consent agreements, so we didn't have to test it.

ASSEMBLYWOMAN FORD: So, they submitted to the jurisdiction. The question wasn't put before anyone?

ASST. COMMISSIONER TYLER: Yes. That's true in a couple of other cases -- things like that.

ASSEMBLYWOMAN FORD: Has the Attorney General, in his informal advice to you, suggested any guidelines in terms of where it would be appropriate for--

ASST. COMMISSIONER TYLER: No, I don't have anything like that, that I know of. There may be something the staff is aware of. Normally what happens is, if we are dissatisfied with a particular process, we make a referral to the Attorney General, and then he tells us we have a case or we don't. We have not done that in this case -- in any of these cases -- that I know of.

ASSEMBLYWOMAN FORD: Just one final matter on housekeeping. I understand that on September 9, we asked for some specific material, and we have not received all of the material from your offices. I appreciate the fact that sometimes it takes time to assemble it. But, can we--

ASST. COMMISSIONER TYLER: Well, on September 9, you asked for the world. I think that was the letter that Speaker Karcher sent the Commissioner. What we responded with was a proposal that if we could make documents available to you on an interim basis, we would do that. I think we have been complying with that agreement. Every few days we have been sending you another file. I can tell you that at least six or seven have already been delivered, and we will continue to do that until you have gotten all 10 of the major facilities. There are another 11 Federal facilities that we do not believe are major environmental problems. If you want those, then we are going to need more time.

I am not trying to be recalcitrant here. First of all, one of the things I--

ASSEMBLYWOMAN FORD: What are the top 10 military facilities?

ASST. COMMISSIONER TYLER: Do you want me to read them to you?

ASSEMBLYWOMAN FORD: Sure.

ASST. COMMISSIONER TYLER: Okay. I will try to check them off; Jorge, you find the list. Lakehurst, Fort Dix, Picatinny, Earle, Bayonne-- I hate to miscount; I am going to wait until I find the list. Are you sure it's in there? (Addressing Dr. Berkowitz, who is going through papers.)

DR. BERKOWITZ: Yes.

ASST. COMMISSIONER TYLER: Let's see: Picatinny Arsenal, Earle Naval Weapons Station, Fort Dix, Fort Monmouth -- they're not all here, Jorge -- the Military Ocean Terminal, Bayonne, McGuire Air Force Base. Oh yes, USDOT has a facility at Pomona -- a Federal aviation facility, an NAFAC facility, which we listed. I have a better list somewhere. (Commissioner Tyler searches among his papers.)

Oh, yes, I just found it: Lakehurst Naval Engineering Center, Picatinny Arsenal, Fort Dix, Fort Monmouth, Earle Naval Weapons Station, McGuire Air Force Base, the Marine Ocean Terminal in Bayonne, the Raritan Arsenal, and the FAA Technical Center in Pomona. That's nine.

DR. BERKOWITZ: There are two at Earle.

ASST. COMMISSIONER TYLER: Oh, there are two at Earle. Is that what it is?

DR. BERKOWITZ: Yes.

ASST. COMMISSIONER TYLER: Earle counts for two. We also have something called the Pedricktown Support Facility on our list to you.

ASSEMBLYWOMAN FORD: There are possibly 11 other sites you are evaluating?

ASST. COMMISSIONER TYLER: Large facilities, and then if you keep going, there are hundreds of Federal installations in the State; every Post Office, for example, might have an underground oil tank or something. We tried to propose a reasonable cut point in terms of your interest and what everyone seemed to be concerned about, which are the environmental problems at the major facilities. Again, if you want more, we are perfectly willing to get them. It is just going to take time and effort.

ASSEMBLYWOMAN FORD: Thank you, Mr. Tyler, for coming to represent the Department.

ASST. COMMISSIONER TYLER: Thank you.

ASSEMBLYWOMAN FORD: That closes the public portion of this hearing.

(HEARING CONCLUDED)



## **APPENDIX**



**GENERAL ASSEMBLY OF NEW JERSEY**

**ASSEMBLY MINORITY OFFICE**

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**HONORABLE CHUCK HARDWICK**  
**MINORITY LEADER**

**BRADLEY S. BREWSTER**  
**EXECUTIVE DIRECTOR**

**October 17, 1985**

**Honorable Marlene Lynch Ford, Chairwoman**  
**Special Committee to Investigate**  
**Hazardous Waste Disposal at Military**  
**Institutions**  
**917 N. Main Street**  
**Toms River, New Jersey 08753**

**Dear Assemblywoman:**

**Attached please find a written copy of my statement which you prohibited me from reading at the first committee hearing.**

**This statement has been submitted for inclusion in the committee's transcripts.**

**Sincerely,**

**Marie Muhler**  
**Assemblywoman, 12th District**

**/kjb**

**Attachment**

STATEMENT BY ASSEMBLYWOMAN MARIE MUHLER

AT THE OUTSET, LET ME SAY THAT THE ISSUE OF HAZARDOUS WASTE DUMPING AT MILITARY BASES IS A SERIOUS ONE. IT IS IMPORTANT THAT WE DETERMINE THE EXTENT OF THE PROBLEM AND DO EVERYTHING POSSIBLE TO PREVENT FUTURE SITUATIONS FROM OCCURRING.

THE ISSUE IS SO SERIOUS, IN FACT, THAT THERE SHOULD BE NO HINT OF POLITICS INVOLVED IN THE INVESTIGATION OF THE PROBLEM.

UNFORTUNATELY, THIS IS NOT THE CASE.

NONE OF THE REPUBLICAN MEMBERS OF THIS PANEL WERE OFFICIALLY NOTIFIED THAT WE WERE TO SERVE. IF WE DIDN'T READ OF THIS MEETING IN THE PAPER, WE WOULDN'T KNOW TO BE HERE.

WAS IT AN OVERSIGHT? I DOUBT IT.

I ALSO QUESTION THE TIMING OF THESE HEARINGS, COMING AS THEY DO ONLY WEEKS BEFORE THE ASSEMBLY ELECTIONS.

THIS PROBLEM WAS UNCOVERED MONTHS AGO. WHY IS IT ONLY NOW THAT WE'RE LOOKING INTO IT?

I FIND IT OBJECTIONABLE THAT A POLITICAL CALENDER WOULD DICTATE THE TIMING OF COMMITTEE HEARINGS. BUT THAT APPEARS TO BE THE CASE IN THIS INSTANCE.

IN ADDITION, THE DEMOCRATIC MAJORITY WHO ARRANGED THESE CAMPAIGN SEASON MEETINGS FAILED TO INCLUDE ALL OF THE MEMBERS RECOMMENDED BY THE ASSEMBLY REPUBLICAN LEADERSHIP.

IN AN ATTEMPT TO DENY ASSEMBLYMAN VILLANE THE SAME EXPOSURE THEY ARE AFFORDING THEMSELVES, THE DEMOCRAT MAJORITY, AND SPEAKER KARCHER IN PARTICULAR, TOOK THE UNPRECEDENTED STEP OF DENYING THE NOMINATION OF ASSEMBLYMAN VILLANE TO THIS COMITTEE. SUCH BLATANT ARROGANCE BY THE DEMOCRATIC MAJORITY IS UNACCEPTABLE AND DETRIMENTAL TO THE GOALS OF THIS COMMITTEE.

THAT IS WHY ONE OF THE SEATS ON THE REPUBLICAN SIDE OF THIS TABLE IS VACANT.

IT IS TOO BAD THAT THIS ISSUE MUST BE TAINTED BY POLITICS. FOR THE CONCERNS OF THE RESIDENTS LIVING NEAR THESE MILITARY BASES ARE VERY REAL AND DESERVE THE FULL ATTENTION OF A SPECIAL COMMITTEE THAT IS TRULY INTERESTED IN SOLVING A PROBLEM.

TESTIMONY OF THE  
NEW JERSEY DEPARTMENT OF ENVIRONMENTAL PROTECTION  
ON THE  
LAKEHURST NAVAL AIR ENGINEERING CENTER

October 10, 1985

Good morning. My name is George J. Tyler, Assistant Commissioner for Environmental Management & Control in the New Jersey Department of Environmental Protection. I am very pleased to be here today to offer testimony before the Special Committee to investigate hazardous waste disposal at military installations.

The Department welcomes this special Legislative Committee's interest in our cleanup program, and particularly in that portion of it which covers federal facilities. Recent interest in the environmental problems posed by federal installations, especially military facilities, stems primarily from the discovery in early July of this year that an accident involving a nuclear warhead occurred at McGuire Air Force Base in the early 1960's, and that that particular incident had never been properly assessed so that any environmental or public health problems it may have caused could be completely cleaned up. Having raised the issue of environmental problems at federal facilities, we have made every attempt to comply with your informational requests and will in fact suggest, respectfully, several issues the Committee might wish to pursue.

Before I address the Lakehurst Naval Air Engineering Center specifically, I believe it is important to give this special committee the full context in which any hazardous site mitigation operation arises in New Jersey in 1985.

My department operates many major environmental protection programs that relate to, touch upon, or directly affect our overall progress in hazardous site mitigation. In the three major operating divisions for which I am responsible, namely the Divisions of Environmental Quality, Waste Management, and Water Resources, there are four major program areas and two or three primary support areas that are all actively and directly engaged in the cleanup of hazardous waste.

In the Division of Waste Management, the Hazardous Site Mitigation Administration is New Jersey's lead agency for publicly funded hazardous site mitigation operations. Its responsibilities are primarily derived from the State Spill Compensation & Control Act and the Federal Superfund program. The Division of Waste Management also includes an enforcement element which enforces the provisions of the State Solid Waste Management Act and many of the provisions of the Federal Resource Conservation & Recovery Act.

The Division of Water Resources operates an enforcement element which is responsible for enforcement of the State Water Pollution Control Act which, of course, covers ground water as well as surface water and handles the federally delegated responsibilities that flow from the Federal Clean Water Act. The Division's Water Quality Management Element, its permit and engineering element, is responsible for the issuance of permits controlling discharges to both surface and ground water. The Division of Water Resources also includes the New Jersey Geological Survey and the Water Supply Management Element, both of

which offer essential support services in all appropriate cleanup situations.

These multi-faceted organizations have evolved from 25 (or more) years of progressive environmental legislation enacted in New Jersey and from the delegation of federal programs resulting from 15 (or more) years of similar activity by the Congress of the United States.

Over the years, these programs have identified approximately 1100 sites in New Jersey which require or may require some form of remedial action with respect to hazardous waste disposal. As it turns out, a fair number of those sites have already been addressed. In fact, in the last two years alone, my department has overseen the cleanup of more than 300 individual sites or portions of sites. That's actual shovels in the ground or barrels moved--real cleanups. These cleanups include 39 actions taken at Superfund sites, those on the National Priorities List, approximately 60 enforcement-forced cleanup situations at industrial sites in the state, more than 100 drum dumps ranging in size from 1 to 200 drums, and 30 other small to mid-size sites.

Finally, more than 150 sites have been cleaned up in the last year and a half through our pioneering ECRA program, the Environmental Cleanup Responsibility Act, which requires property owners to clean up before they sell out and move.

It is against this backdrop that you must review any individual cleanup including the potential cleanups that may be necessary at the United States Naval Air Engineering Center at Lakehurst. My department operates a vigorous cleanup effort which maximizes the enforcement powers available to us under various State and Federal laws, and utilizes as much Federal money as is available for the larger sites where no private responsible parties are ready, willing or capable of cleanup operations.

I have for you today a copy of a document which we distributed to the Joint Appropriations Committee in our annual report to them of our cleanup program. This report was updated in July of this year and documents the points I have just made.

That brings me to federal facilities, and in particular to federal facilities operated by the Department of Defense. In New Jersey, we have ten major federal facilities. One operated by the United States Department of Transportation, and nine operated by the United States Department of Defense, which have hazardous site mitigation requirements. One of these, the United States Naval Air Engineering Center at Lakehurst, New Jersey, is the subject of today's hearing.

There are at least 100 different sites or spill incidents that require investigation at the ten federal facilities. For example, at Lakehurst, there are 44 sites or spill incidents clustered in 12 major areas on the United States Navy's property.

Not all these sites are question marks in our minds. In fact, at Lakehurst we have already worked with the United States Navy in cleaning up at least 25 different sites. I will be glad to describe those cleanups that have already occurred at Lakehurst over the years, and specify what was spilled and what was cleaned up if the Committee so desires. I can do that now or I can submit that for your consideration as part of the record of these proceedings.

Despite the fact that much has been done at the site, there is no question that much more remains to be done. Of the 44 sites, only seven appear to have been dealt with, thus many significant areas of contamination remain. These areas include, according to the Navy's own reports, old landfills, waste lagoons, and open pits where substantial volumes of hazardous materials have been dumped for many, many years. The Navy has proposed a comprehensive study to better identify these problems and to suggest methods of remediation. Phase II of their program is about to get underway. We intend to track and monitor that process and insure its successful completion. While that's positive, it's not enough.

We've received reports which give us cause for great concern and for which we are insisting upon a much greater analysis of the entire site. Over the years, there has been an extensive amount of contact between my Department and the United States Navy with regard to Lakehurst. Most, if not all, of the early contact related to individual spills and isolated incidents of dumping. For the most part, these initial incidents were cleaned up very quickly.

The consistent pattern of indiscriminate dumping was first disclosed partially in a March 1983 report which the Department received in October of that year. I should note, however, that the executive summary of that same report states, "The study concludes, that while none of the sites pose an immediate threat to human health or the environment, 16 warrant further investigation under NACIP program to assess potential and long term impacts."

The United States Environmental Protection Agency's comments on that report, and the United States Navy's follow-up study, done in May of 1984, were not made available to my department until July of this year.

Since then we have escalated our surveillance of this site; EPA has, probably in response to our inquiries, ranked it for inclusion on the National Priorities List and we have initiated our own site boundry sampling program due to our concerns with both the lack of raw data and the quality of any data gathered. Those laboratory results are expected shortly and we will, of course, keep you fully apprised of the situation.



The Committee's invitation to my department which, by the way, we received on October 8 and, therefore, we had very little time to respond to your specific points of interest, requested that we address three areas of concern with respect to the United States Navy's Lakehurst facility.

The points you asked me to address were: first, existing water quality problems; two, the aquifer resources that might be impacted by those water quality problems; and three, the mitigation strategy, if any, that would be used to address them.

The water quality issue is, of course, a function of the local geology. The Lakehurst Naval Air Engineering Center in Ocean County is a 7000-acre facility located on the Atlantic Coastal Plain physiographic province. Topographically, the site is relatively flat and lies approximately 70 feet above mean sea level. The ground water table occurs approximately seven feet below the land surface under unconfined conditions. The Manapauqua Brook flows along the southern boundry of the site. The Ridgeway Branch flows along the northern perimeter. Based upon the water table surface as determined from monitoring wells, local ground water flow is toward these surface streams.

The site is underlain by the Cohansey Formation. The combination of a shallow water table, discharges of ground water to streams and low surface gradient cause the ground water and any contamination to generally flow in a lateral direction. Accordingly, investigations of ground water contamination are concentrated on the uppermost aquifer, the Cohansey, and to nearby surface streams.

As you know, ground water movement is much, much slower compared with surface water movement. In the Lakehurst area, the ground water movement is probably less than one foot per day. Accordingly, any contamination of the upper aquifer will remain localized and most certainly cannot impact the entire Cohansey aquifer, which provides water to most of southern New Jersey. Also, the Department has not received any information from either the United States Navy or the Environmental Protection Agency or our own studies that demonstrates off-site ground water contamination from this facility.

With respect to the United States Navy's mitigation strategy and schedule, at this point in time we have reviewed a proposed scope of work for an engineering analysis of the entire site, and we have supplied both the United States Environmental Protection Agency and the Department of the Navy with our full review of their proposed work plan for measuring the impact of previous waste disposal practices at this site. You will find those comments among the materials we have already supplied this Committee. We have not yet had a reaction from either the United States Environmental Protection Agency or the Department of the Navy to our comments and we have not yet agreed to a schedule. I mentioned earlier that this Committee could be helpful in

effectuating our common goal, that of complete remediation of any and all hazardous sites on the Lakehurst Naval Air Station. When the Base Commander appears before you, as I understand he will, you could ask him how the Navy will be reacting to the State of New Jersey's technical comments and technical positions. You could also ask him to set forth for you, as precisely as he can at this point in time, the specific schedule for carrying out the study and what he knows about any schedules for remediation steps that will follow. As I said earlier, there have already been many cleanups at this site, so I don't want to imply that the Navy as an institution or any of the United States Navy personnel have deliberately exhibited any disregard for our environmental and public health concerns. They have expressed their sincere concern with doing the right thing and, to date, they have been cooperative with our hazardous site mitigation personnel. There have been delays, however, in the sharing of the details of their on-site progress and cleanup. Also, it is my impression that the United States Navy is bound by a national schedule, and that they are faced with competing for cleanup dollars, amongst and between other federal installations across this country.

This is, of course, not acceptable to the State of New Jersey which is precisely why we escalated our efforts to monitor the off-site impact, if any, from this site.

Finally, with respect to water quality, there have been suggestions that hazardous discharges at the Naval Air Engineering Center are related to possible contamination problems in the Lakehurst Municipal water supply. First of all, there are no detectable contaminants in the Lakehurst Municipal water supply as it is delivered to its customers. There have been several possible, very minor levels of organics detected in the raw water that is before it enters the delivery system. However, those very low potential levels of contaminants have not been confirmed, and even if confirmed, there is no reliable information available yet that would indicate the source of this material was Lakehurst.

The remedial investigation and feasibility study that will be done by Dames & Moore for the Navy and which is not yet underway, will confirm whether or not the Lakehurst Naval Air Station is involved in this particular problem. However, our staff does not believe that will be the case.

The only other potentially contaminated well in the vicinity of the Lakehurst Naval Air Station, however, one is in the immediate proximity, in fact on the property of, a gasoline station. One contaminant has been detected in that well. The Department has been working with the operator of the station who has agreed to the complete removal of the underground storage tanks at that gas station. Those tanks will be removed and all contaminated soil also removed later this month.

I should note again that we have initiated an off the Navy site sampling program. It includes two new rounds of sampling at

the Lakehurst Municipal water system, 11 individual well water supplies, six stream samples (both water and sediment) downstream from the Lakehurst Naval Air Engineering Center.

Finally, I would caution this Committee, as I cautioned your staff when they first contacted us some weeks ago for information about this and other federal facilities, to be careful to account first for the role of the federal Department of Defense and the United States Navy, and then for the role of the United States Environmental Protection Agency in carrying out and overseeing the cleanup at the Naval Air Engineering Center. Only then will the role and the responsibilities of the State of New Jersey's Department of Environmental Protection be clear. Simply put, having continued to stir the pot on federal facilities, personally and as part of an effort lead by the Governor and Commissioner Hughey and most notably with respect to the unfortunate Bomarc missile site situation at McGuire Air Force Base, I certainly don't want to be "hoisted on my own petard." We brought the issue of federal facilities to a fore in New Jersey. We brought it to the public's attention as forcefully as we could with the assistance of the Governor's office, and I will resist any suggestion that we should be somehow embarrassed by that effort.

The Congress of the United States authorized the federal Department of Defense to begin, on its own, to address hazardous waste problems at federal facilities across the country. The Department of Defense established something known as the Installation Restoration Program, a program of remediation, recovery and cleanup, if you will, at many thousands of sites across the country. That act of Congress was part of the federal budget process, I believe. The question of jurisdiction, even by the federal Environmental Protection Agency, was left unresolved until a Memorandum of Understanding was authored and signed between the two federal agencies. My department, as stewards of the environment of New Jersey, and good ones I believe, have monitored that process, have made every effort to force a high degree of quality into that process at the federal facilities in New Jersey. It is the federal government's position that the cleanup of hazardous sites on federal facilities in New Jersey and in every other state in the country is a federal responsibility, and in fact they have taken the lead on all of those particular cleanup operations. Frankly, we don't object to that position on the part of EPA. At all cleanup sites a basic decision has to be made as to whether the federal government or the state government will take the lead. Traditionally, that lead has been shared on a 50-50 basis, so that, just for example, the Kin Buc and Lone Pine cleanups are federal lead cleanups. The Burnt Fly Bog and the Syncon Resin cleanups are state lead cleanups. It's simply a question of maximizing the use of existing resources in an intelligent fashion. Thus, when the federal government assumed the lead position on cleanups at federal facilities, it made imminent sense to me and other members of my department. Nevertheless, as we do with all cleanups in the state, whether state or federal lead, or done by private responsible parties for

that matter, a careful monitoring and tracking of the situation is in order.

One area that is somewhat difficult is dealing with managers of facilities that are associated with the national defense. It is at times very difficult for them to be as candid and as forthright as we would like and, perhaps, as they would like to be. It is also a different situation than that which we have come to expect when dealing with industrial site operators in the state. As a result of that and the fact that we are working through EPA, it has been less than simple to obtain all of the details of these cleanup programs. Nevertheless, we have exerted our state's jurisdiction, we have indicated to EPA and the United States Navy at Lakehurst and at other facilities that we are going to treat federal facility cleanups by the Navy, the Army, the Air Force, or the Federal Aviation Administration essentially as enforcement driven cleanups that we expect to monitor through an agreement process. These agreements which will be consent agreements will be crafted under, and hopefully enforceable under, our State laws. They will be tri-party agreements requiring the consent of both the United States Environmental Protection Agency and the New Jersey Department of Environmental Protection.

In summary, therefore, we now have a major cleanup study about to begin at Lakehurst Naval Air Engineering Center. The cleanup of that site has been given an appropriate priority; it's been delegated to the federal Environmental Protection Agency to assume the lead for monitoring the cleanup; my department is following it, and there are absolutely no public health problems associated with the Lakehurst Naval Air Station that we know about.

I thank the Committee for their courtesy in listening to my, I am sure, overly lengthy remarks. I wanted to amply put forth our positions on the many issues associated with this Committee's mandate on the site in question today. Should you have any questions, I would be happy to try to address them at this time or I will certainly provide you with whatever documentation you require from our files at a later date.

Thank you again.

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