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PUBLIC HEARING

before

SENATE INSTITUTIONS, HEALTH AND WELFARE COMMITTEE

on

**"Recent Findings of Radium and Radon Gas Contamination
in Homes in Essex County"**

Held:
December 21, 1983
West Orange Town Hall
West Orange, New Jersey

MEMBERS OF COMMITTEE PRESENT:

New Jersey State Library

Senator Richard J. Codey, Chairman

ALSO PRESENT:

Congressman Joseph G. Minish
Assemblyman Harry A. McEnroe

Eleanor H. Seel, Research Associate
Office of Legislative Services
Aide, Senate Institutions, Health and Welfare Committee

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SENATOR RICHARD J. CODEY (Chairman): I would like to get started. Will everyone please be seated?

Our first witness this morning will be the Commissioner of the Department of Environmental Protection, Robert Hughey. Commissioner, welcome and thank you for coming.

R O B E R T E. H U G H E Y: Senator, thank you. Senator, as discussed with you, I think that one of the best things we could do today is to bring the Committee and audience up to date on the nature of the problem.

SENATOR CODEY: Excuse me, Commissioner. I justed want to mention that I asked Congressman Joseph Minish from the Eleventh District, which is the area that we are talking about, to join us. Also with us is Assemblyman McEnroe who represents this area too.

COMMISSIONER HUGHEY: That is fine. I thought what we would do today in order to provide a basis for the rest of your hearing, Senator, is to provide a brief background about the situation we are working with and to take you through the latest materials that we have developed, with one exception, which I'll explain when we get to that exception.

With me today is Steve Kuhrtz who has been running this operation for our Department. He has been operating out of Montclair City Hall. Also with me is Dick Dewling from the Federal EPA. Dick is the Assistant Regional Administrator for EPA in New York, and he is very familiar with New Jersey because he is the person we are fortunate enough to get in any emergency situation that we work with.

Let me say for the record something which I discussed privately with the public officials yesterday in the region. We have had tremendous cooperation from Montclair, Glen Ridge, West Orange, Orange, and South Orange and most prominently from the health officials who we have had to rely on for a lot of the data we've put together. They have been superb. I think the area should be congratulated.

We have been working with an issue that is a difficult one. It is a radiation problem as a result of radium in soil. As we go through the maps, which I'm going to ask Steve to do, you'll see that the problem is really historical. We are dealing with fill material that, as close as we can find out, went into the ground between 1930

and 1933. It is our information at this point, and I'm sure we'll discuss it in a little more detail later, that the fill material went in at the same time, and it went in under the auspices of the same development company. For a number of reasons, we're going through historical title searches on these properties. That is likely to be good news as we complete our investigation.

We have had a very active three weeks here, and we have made, I think, a substantial amount of progress. I would like Steve, with your permission, Senator, to walk you through the last set of data that we have available, with as brief an explanation as he can provide. Then, obviously, we will stand ready to answer any questions that you might have.

SENATOR CODEY: Sure, Mr. Kuhrtz? Please speak up as much as possible. I don't think that the mike system is working that well.

STEVE KUHRTZ: Thank you. Senator, I would like to try to explain fairly briefly the actions that we have been taking and some of the new information we have acquired over the last couple of weeks since we originally identified the problems in Montclair and Glen Ridge.

These actions and the monitoring program that we have implemented in large part have been possible because of resources that the U. S. Environmental Protection Agency has made available under their emergency Superfund provisions.

First of all, we have developed a substantially expanded air sampling plant based on a number of different pieces of information. First, of course, we had the original radon gas monitoring data that the Department of Environmental Protection had developed. Secondly, in addition to the land-use maps that were reviewed by the geological survey, we have also done some expanded surveys measuring gamma radiation at the street level. Gamma radiation is an indicator of where contaminated soil may exist, and it gives us an idea of where to focus our attention to do the more detailed air monitoring.

The purpose of all of this sampling is, of course, first to confirm which and how many houses will actually need remedial action, and secondly, of course, to define the aerial extent of the problem that we are dealing with in these two neighborhoods.

At the same time that we implemented our monitoring program, we had been carrying out our remedial action plan, at least the first phases of it. When we first developed the plan to deal with this problem two weeks ago, we designed a three-phased approach to the problem where we identified homes in three different categories based on the radon levels that were measured in those homes.

The first category warranted immediate remedial action within a one or two-week period. The second category of homes with the middle range of radon levels warranted remedial action quickly, but they didn't require the immediate action as would be in the top homes. For these homes, we planned for the installation of remedial systems within a two to three-month period. Finally, regarding the homes with the lowest level, but still exceeding our criteria as warranting remedial action, we will be taking whatever remedial action we design at that point over the next twelve to eighteen-month period.

In carrying out phase one over the course of the last couple of weeks, we have done preliminary engineering surveys on sixteen homes with the higher readings for radon gas. We've completed detailed engineering plans on five homes. The installations will be complete on four of those five homes during this week. We will try to get the system installed on the fifth home if possible. We are running into a bit of a legal problem in terms of determining ownership of the home.

SENATOR CODEY: Mr. Kuhrtz, I think it would help us if you explain in layman's terms basically what you found there, what you have been doing, and what you will be doing concerning those homes.

MR. KUHRTZ: These five homes were basically identified as those homes with the higher levels of radon daughters. They were the specific homes that we identified as needing remedial action; that is, some system to reduce those radon daughters within a one to two-week period.

These systems are essentially just ventilation systems where we are taking in fresh air from the outside. We have installed a new furnace which is intended to heat that air, so we're not bringing in, particularly today, zero degree air. This air is ventilated out from the furnace, pushed into the basement, and then it is exhausted at the other end of the basement. So, we're essentially flushing the air

through the basement, keeping the basement under positive pressure, and thereby reducing the radon concentration in the home.

The first system we installed was operational last Friday. It was very highly successful, reducing the radon daughter products down to well within normal background levels. So, we are very optimistic that these systems will be highly effective very quickly.

SENATOR CODEY: Okay, but that is out of sixteen homes that you tested?

MR. KUHZRTZ: We have tested over 260 homes in the two neighborhoods of Glen Ridge and Montclair/West Orange. Of those, we have about forty homes that we think currently exceed our lowest remedial action level. In other words, there is a total of approximately forty homes that ultimately will have to have some remedial action taken.

SENATOR CODEY: Of those forty, you have done five. Is that correct?

MR. KUHZRTZ: Of the forty, four will be complete by the end of this week. We had intended to have those forty staged in three phases for remedial action. About one-half dozen that we initially identified would require remedial action in one to two weeks. Another dozen approximately would be in the middle category where we will be planning remedial action within two to three months. Then the final phase three involves another dozen to fifteen homes where we will be planning to take remedial action over the course of the next year to eighteen months.

If I could, we have some maps up on the board--

SENATOR CODEY: You can go to the maps, then you can come back and we'll question you.

MR. KUHZRTZ: These maps will describe the sampling we've done. Essentially our expanded sampling program involves two different types of samples. The first sample is called the "grab sample," which is a screening technique. It is a point-in-time measurement where we go into the home and take a sample for approximately five minutes. The air is run through a filter where the radon products are collected, and the filter can be tested, and the results available within approximately twenty-four hours. If that measurement indicates that

the home is above a certain level that we've established as a cutoff, then we will go back into the home and take a longer term, more comprehensive sample where a canister is actually placed in the home for about five days and run continuously. This gives you a better picture of the actual radon daughter concentrations in the home. Basically, it averages out the fluctuations that might happen on any given day.

As I said earlier, we have expanded our sampling program to monitor approximately 260 homes. Among these, we have found only thirty-four homes that require the integrated testing. In other words, the grab sample gave us a level above our criteria to require the longer term sampling.

SENATOR CODEY: I thought before that you mentioned a figure of forty.

MR. KUHZRTZ: There were the initial thirty-seven homes that we identified. We've done the long-term sampling in those. We've expanded our sampling program to cover another 230 homes, so we've looked at a total of about 267 or so.

In addition to the initial thirty-seven homes, we've identified thirty-four that exceed our grab sampling criteria. We're putting the long-term monitors in those homes.

Looking at all the data and using the grab sample numbers as a representation of what the radon concentrations are in the homes, there are approximately forty homes that will exceed at this point our remedial action levels. Some of those homes we may find will come down when we do the more comprehensive monitoring in them.

I would like to try to give you some understanding of how we developed the rationale for our expanded monitoring program. The two maps on the board -- the one on the right represents the Glen Ridge area, and the one on the left represents the Montclair/West Orange neighborhood. The dashed line coming down diagonally through the map on the left is the town border, with Montclair on the right and the West Orange neighborhoods on the left.

This first overlay that we've placed on the map represents our expanded gamma radiation survey which we did to give us just an indication of where the soil on the property lots may be contaminated.

Gamma radiation is a type of radiation that is emitted by the radioactive material that is contaminating the soil, but it does not represent the health concern that we have. It is just an indicator of where the material is. This gamma survey also was done from the street level. There was no effort to take the measurement on the property, so again, it just gives you a rough indication of where to look.

The yellow lines around the streets represent basically background levels of gamma radiation. The blue areas basically shown in the center of these areas that we're looking at show levels that are above twice the background for gamma radiation. In other words, the gamma radiation was giving us an indication that there was something abnormal around those property lots. It doesn't give you a definitive picture of where the contaminated soil is.

The second overlay shows the monitoring sectors that we designated for this expanded grab sampling program. The individual sectors themselves have no significance. They are basically just for our operational control of the field teams. What is significant is the overall outline of the monitoring area that we have designated. You can see that we have taken the gamma radiation -- the blue lines which indicate above background -- and expanded our sampling plan out from those blue lines. Based on the gamma survey, you can see that there are still some areas that we need to sample. For example, there is a high gamma rating up on Harrison Street in Montclair, and we'll need to cover that with some sampling in those homes.

Finally, the third overlay that we have is a representation of the areas that we identified through our geological survey investigation, which showed that in both of these neighborhoods, there were areas fairly well confined to the areas that we are looking at to address the radon problem, and they were obviously filled in prior to development.

In the Glen Ridge area, you can see the hashed in green area over on the left was to a large extent former sand and gravel operations -- pits that you can see on the historic maps expanding over time as the sand and gravel operations proceeded. Subsequent to the closure of that operation, obviously that area was filled with some kind of fill material prior to development.

In the other area of Glen Ridge and the Montclair area, that was basically determined to be a low-lying kind of a gully area. There was a dry creek area in there that clearly was filled in prior to the development of those homes.

You can see that we have tried to design our expanded program which is an effort to define the periphery of this problem -- find the boundary out beyond which the soil contamination doesn't exist. We defined that monitoring program basically with this data that we have used as screening tools -- the gamma survey and the old land-use pattern maps.

We have pretty much covered the areas that those screening techniques would indicate to us as needing to be covered. However, we are still seeing a few houses on the periphery that exceed our remedial action criteria, so we will have to be expanding our monitoring program at least another step, another phase to get the boundary around the current monitoring area.

That pretty much concludes our presentation. Oh, I should add one more thing. As part of our monitoring program, we will be going back on the property and doing detailed gamma radiation surveys -- actually grading out the property lots -- and using that gamma survey information to design a soil coring sample where we will actually be digging down and taking small core samples which we need to help characterize the nature of the contaminated material, and to determine the actual distribution of the contamination beneath the surface -- whether it is concentrated in little spots or whether it is uniformly spread out. It will not only determine how difficult our cleanup may have to be, but it will also give us an indication as to whether there may be some other remedial methods available like trenching or venting the soil beneath the surface to provide a less resistant pathway for the radon gas to travel so that it doesn't go into the homes. That coring effort will probably begin next week.

COMMISSIONER HUGHEY: I would just like to add to that. There is one other overlay that we have discussed with public officials, but we want to discuss it first with the people in the neighborhood. We have been working with two ad hoc groups. That shows the various concentrations.

The reason that we have been a little more careful about it is that, as we have gone through this, we have tried to be less than specific about individual houses. We have been working with aggregate data. What it does show is that the concentrations do happen to overlap the landfill areas.

We stand ready to answer any questions between EPA and ourselves.

SENATOR CODEY: At this point, I would just like to make it clear about the number of homes. You tested or looked at roughly 267--

COMMISSIONER HUGHEY: About 270.

SENATOR CODEY: Of those 270, you found high levels of contamination in roughly about thirty-seven?

COMMISSIONER HUGHEY: We found various levels above what we call the remedial level in about forty homes. The highest category had five homes in it.

SENATOR CODEY: Of those, forty-five were extremely high.

COMMISSIONER HUGHEY: Of those, forty-five were very high. That was the first category. On second testing, with more sophisticated testing gear, some of those were no longer in the first category, but we just followed through on the remedial action that we had lined up for the five. Four of those will be in remediation before Christmas. That is our target. Two have been done to date, two are being done today, and one we are having some difficulty with simply because no one wants to admit owning the house. We can't get anybody to sign the waiver. But, we will do that regardless.

SENATOR CODEY: Okay. Do you now plan to broaden the area that you have looked at into other neighborhoods?

COMMISSIONER HUGHEY: Well, not really other neighborhoods. What we try to do, Senator, in each case like this is, we now have a pretty good indication of the borders where the problem has been identified. But, whenever you get anything close to that border, you then expand it. Whatever side it is, you then expand that side to make sure you have a clean area around the entire sample. We won't see as aggressive a sampling program as we have seen to date. We won't see 270 more homes. We may see ten or twelve in various directions, just to make sure that we have the outline of the property.

You lead me to another question which I think comes up fairly frequently. That is, we might have cleared, as the numbers indicate -- we probably have cleared already all but forty of the 270 homes sampled. That does not mean that we will not be resampling in some of those homes, because this problem, because of the fill nature of the material -- you could have one home next door to another, and you could have no problem in one, but you could have a problem in the next. When we start to do the coring samples for the long-term remedial action, we may have to go over those boundaries to check on the best scenario for cleanup.

So, we'll be back into a number of the houses that we've sampled already to resample. We'll be doing coring samples in the entire two areas that you've seen. In addition to that, we probably will be doing some samples in other areas.

SENATOR CODEY: Yes, but will you be expanding it to include other areas surrounding what you have already looked at? I mean, my understanding was that there may be some other "hot spots" in the Town of West Orange.

COMMISSIONER HUGHEY: Oh, okay. When we started the historical investigation, there were fifty-one sites that we wanted to look at -- that we had reason to look at.

SENATOR CODEY: Fifty-one sites around Essex County?

COMMISSIONER HUGHEY: Around Essex County. We have eliminated all but the sites you are now familiar with, and we are working on another four or five that were nowhere near the same category. But, we want to eliminate them through actual testing. We've done some gamma walks. We want to go back and do some more sophisticated testing. It is not, therefore, a pervasive problem. We know that we have to come into Orange because we want to make sure of where we are going on a closure.

SENATOR CODEY: In regards to the Alden Street property?

COMMISSIONER HUGHEY: That is right.

SENATOR CODEY: Can you say that the fill -- what you suspect that you found in these homes -- was from the U. S. Radium site in Orange?

COMMISSIONER HUGHEY: We can't say that at this point, although we have contacted the company and asked for all records of material moved from their site between the years of 1920 and 1933. The business itself went out of existence in 1926, but we think that fill material may have gone off later than that. In this case, we're looking at -- as far as our geological people can be assured -- somewhere between 1930 and 1933.

SENATOR CODEY: Assemblyman?

ASSEMBLYMAN McENROE: Thank you, Senator. Radon gas -- apparently that is the culprit in this circumstance. Can it only develop from soil moved following its contamination from radium, or are there any other possibilities of radon being developed by other means -- other than the use of radium?

MR. KUHZRTZ: Radon gas is a decay product of radium.

ASSEMBLYMAN McENROE: Only of radium?

MR. KUHZRTZ: Only of radium. My technical expert is not here, but I believe it is only of radium. There is a similar type of gas that is in the decay chain for thorium, which is similar to uranium, but essentially, it only comes from radium.

It is naturally occurring however. There is radioactive material -- uranium and radium -- in the natural soils -- clays, building materials -- in varying concentrations. In many places throughout the country, there are natural sources of radon gas in homes that create quite high concentrations. But, this is from natural material.

COMMISSIONER HUGHEY: For example, Assemblyman, when we were going through the original review in looking at various categories of radon gas, anything with a lot of granite in it shows up on an aerial (inaudible). Cemeteries always show up because of granite content.

The two schools that we checked probably showed up originally because of the masonry in the building materials involved in the construction. It had nothing to do with the same kind of fill material.

ASSEMBLYMAN McENROE: There has been a lot of movement of rock and earth in West Orange in particular, but there is no potential for natural radon gas to have developed because of that relocation of substantial amounts of it?

MR. KUHZRTZ: No, we don't believe that the natural concentrations of uranium and radium, which is a decay product from uranium, would pose a problem with natural concentrations of radon gas.

ASSEMBLYMAN McENROE: Okay.

SENATOR CODEY: Have you taken an inventory of other commercial sites that might have used the same product?

COMMISSIONER HUGHEY: An inventory, yes. We're familiar with most of the manufacturing processes that would have used the radium ore. In addition to that, we've checked through the manifest system on potential disposal of radioactive waste.

While we can't make a direct connection, Senator, the product that we're looking at in this instance is probably the product of a manufacturing process that stopped in this State prior to 1930. There is an obvious direction to look at here. While I can't make that connection yet, we think that there is probably a connection.

SENATOR CODEY: How long will it take before you can say that the homes we are talking about are free of radon gas?

COMMISSIONER HUGHEY: I think there are two answers to that. The homes in the first phase, for example, are -- right now, you could say that there are three installations as we sit here now. Those homes where the installations have been made are now below the background levels of the area. So, the homes are free of radon gas.

I think in terms of overall cleanup, it will probably be two years before we say that we have removed the problem totally. Specifically because of the categories that we deal with here, there are sixteen feasibility studies that have been completed already, Senator. There will be individual feasibility studies done for each one of the properties in that forty that we think should be remediated. The sophistication of those studies will vary.

In some cases, for example, we may have a very small corner of a basement which happens to be on fill material. In another area, the entire house may be on fill material. So, it is going to vary from house to house, and the techniques are going to vary. But, our interest to date has been to remediate the health hazard as we see it -- to take care of the occupants and to get the levels in the houses down. That is being accomplished.

SENATOR CODEY: But, you're saying that it will be at least two years before you would give a "bill of health" to those homes.

COMMISSIONER HUGHEY: No, I don't think so. We would like to be able to do a couple of things in the near future. One is to be more specific with regard to eliminating other potential sites. I think we will be in a position to do that before the end of January. Hopefully at that point, we will only be dealing with two or three sites, one of which is a closure site.

In addition to that, I think we would like to be in a position to tell not just the people who are affected, but the people in their area, that they have some certification that those houses are free. I think that is necessary. We having been talking to EPA and the Center for Disease Control, which is the group we are going to ask for some certification, to make that possible. It won't be an easy thing to get the Center for Disease Control to do, but I think we will be in a position to tell people that their houses are below background levels as we take the remedial action.

SENATOR CODEY: So, before two years, you expect to be able to say to those people whose homes have been affected that they are totally free, there are no health hazards, and that anyone can move into those homes and feel secure that there are no hazards to their health. Is that correct?

COMMISSIONER HUGHEY: I think we will be in a positon to do that, yes.

SENATOR CODEY: Okay. The paying for the cleanup -- is that being taken from the Superfund monies?

COMMISSIONER HUGHEY: Right now, all the money that has been spent to date has come out of Superfund emergency category funds. That will take us through the remedial action phase. In addition to that, thanks to Dick, the EPA has agreed for the first six months, because of the nature of the units we are putting in, it could actually increase energy costs to the individuals -- the EPA has agreed for the first six months to pick up the difference between last year's bills and this year's bills in terms of heating.

Beyond that, there are a number of directions we are looking to. One is, we would like to have a completed feasibility study for

overall cleanup because there are probably a couple of funds for that money. One would be stateside money. That has already been addressed by a couple of legislators here. We would like to have a real number to give those legislators. We would also like to have a real number to give the Congressman so that we can begin to either work it -- the overall cleanup into Superfund -- or to do it through some kind of a special appropriation process.

In terms of the additional costs to the homeowners, we are looking to two sources. One is the Spill Fund at the State level, and the second is the Landfill Closure Fund, which would be my preference if we can get the kind of interpretation that we are working on. That would give us an ability to help the affected homeowners, primarily with taxation during the remedial period. I think there is a legitimate argument that as we remediate the neighborhood, not just the homes, those people have a loss. We should look to try to offset that loss.

So, we are in the process of looking in both of those directions. We will probably have an answer by early January, and in the meantime, EPA is providing the split in the energy costs. The units that are going in are going in at EPA's expense, with probably one exception, which may be a State expense.

SENATOR CODEY: Okay. Commissioner, radium and radon are not listed as hazardous substances under the Act as it now stands. Will that be changed?

COMMISSIONER HUGHEY: Yes, as a matter of fact, before this, as a result of some other situations that we were working on, we had done a rule change, which included radioactive material.

SENATOR CODEY: I don't know if you know the answer to this, but in Colorado where a similar type of problem occurred, what was the effect on the property values of those homes?

COMMISSIONER HUGHEY: I don't know the answer to that. Dick may. What I can tell you is that the problem that they had -- all problems, I guess, are relative -- was much more pervasive. I think they were dealing with between 2,000 and 6,000 houses.

D R. R I C H A R D D E W L I N G: We're trying to get a report on that to give the State of New Jersey some feel for the impact of the

alterations that were made out there. I think it is significant to recognize that the magnitude of change or alterations that we're making in the Level A homes, which involve putting in a separate heating system, are likely not going to be required in the Level C homes. A simple exhaust may be all that is required in those homes. The opportunity for different selection of options, so to speak, for the homeowner will give us greater variability in options for public acceptance of what we have to do in the homes.

SENATOR CODEY: Okay. Commissioner, the contaminated soil -- where will that be disposed?

COMMISSIONER HUGHEY: That, Senator, I can't answer at this point. That is one of the more difficult things to do in any cleanup. There are still some options for disposal of radioactive material, low-level radioactive waste, which are going to conclude in about 1988 under the Congressional action which asks every region to develop their own disposal facility. I think we are talking here about a project that should be completed before 1988. That may be one of the better things that we have going for us.

SENATOR CODEY: Well, under legislation that we had passed some two years ago with the toxic and hazardous waste sites, my understanding is that nothing has really been done on that. That has not been put into motion.

COMMISSIONER HUGHEY: That is not exactly true. There are two pieces of legislation that would be applicable to this case. One is less so. The Hazardous Waste Commission, which the Legislature developed, is in the process and has completed siting criteria, has published that siting criteria, and is holding public hearings on that criteria.

SENATOR CODEY: Wasn't that to be done in eighteen months?

COMMISSIONER HUGHEY: When I went into the office, it hadn't even been established yet, so for the first six months, they weren't in operation because they hadn't been appointed. I think that we have gone through an extension with the Legislative Subcommittee. We talked about the need for a longer phase last year.

But, I don't think that is where the answer to this lies anyway.

SENATOR CODEY: No, I didn't say that it did.

COMMISSIONER HUGHEY: The answer to this is a piece of legislation that both the Assembly and the Senate passed this year, which permitted New Jersey to engage in discussions with the regional states around us to enter into a low-level radioactive pact and to try to go through siting for a low-level radioactive facility. New Jersey and a couple of our other states -- Massachusetts, Connecticut, and New Hampshire -- have been very good in terms of going through with this pact.

The two biggest contributors to the pact so far have stayed out of the negotiations. They are New York and Pennsylvania. So, where we go in that direction, I think, is going to be predicated more on where other states are willing to go. That is supposed to be completed, Senator, by 1988, which is the time limit that I think we all have to work to, because after 1988, our ability to dispose of soil in other regions is going to be very diminishing.

SENATOR CODEY: Okay. Congressman?

CONGRESSMAN MINISH: First of all, let me commend you, Mr. Chairman, for holding the hearings. This is a concern of a lot of people, and I do know that we have received many calls.

Commissioner, we talked about 200-plus homes, but now we're down to forty. Is that correct?

COMMISSIONER HUGHEY: Yes.

CONGRESSMAN MINISH: So, 160 to some degree have been cleared.

COMMISSIONER HUGHEY: More than that.

CONGRESSMAN MINISH: More than that. Dr. Dewling, it is my understanding that at the present time anyhow, you don't have any monetary problems in terms of installing whatever you have to do and in going full speed ahead in trying to alleviate this problem. Is that correct?

DR. DEWLING: That is correct. Under the Superfund, we have a maximum of \$1 million for each community. We have identified them as two separate emergency actions, and right now, we haven't exceeded a five-zero figure yet. We're still under \$100 thousand in total contract cost. The time that EPA spends for their own internal resources doesn't count towards that, so we're far from reaching any limit.

The ultimate problem is going to be when, as Bob said, we get down to the design remediation and there has to be some massive, if possible, soil removal. That is going to cost sizable dollars. But, right now, to make remediation in the homes and to do the studies to find the magnitude of the problem, we do not have a financial problem.

CONGRESSMAN MINISH: Mr. Chairman, I want to commend both the State and the Federal level for getting involved in this immediately. I know that we have been in touch more so with the Federal level, and in every instance that the office has contacted them, they were right on the spot. So, I want to congratulate both the Federal and the State level for looking into this problem.

DR. DEWLING: I would just like to mention that we try to break it into the numbers of homes. These numbers change daily, but I think the significant point is that we know the problem is not uniformly distributed. It is a spotty-type of problem. That is good news. When we went in to do the testing, we anticipated the worst, figuring that there would be more Level A homes. Rather than finding more, we were able to lower the initial Level A homes to Level B. So, there are only really two of the original six that we thought were going to be the highest level.

The important thing there is that regardless of what the preliminary data was, we took remediation in those half-dozen homes without arguing whether or not the number was high or low or inbetween. Now, the Level B homes and the Level C homes -- we will be going back in and sampling. We may be sampling another 50, 60, or 100 homes -- the same homes that we've been in, because we feel comfortable in the numbers that we provide the people. We can say, "Look, it does not look like it is a problem." The reason we can say that comfortably is that this is the worst time of the year in terms of air movement. The house is closed, so we would get the worst reading. If we have a low reading, we are pretty comfortable that things are looking pretty good. But, we will still have to go back into the home to do a five-day integrated sample, which means we will have to put this unit in there for five days.

The reason we want to do that is to make doubly sure of the decision that we made based on the grab sampling. We will be involved

in sampling in the homes, as well as sampling outside the homes, to do the coring at least for the next six to twelve months.

People should be comfortable in the fact that if something does develop, we are there. If there is a feeling of queasiness, as the case might be, that something has changed, we can go in and resample that home to try to make any public fear relative to this problem minimal. I think that is important.

We have maintained a high level of confidentiality, as Bob has indicated. We have called the individuals within forty-eight hours after we got the data, and we gave them the data over the telephone. We will be sending them a letter indicating the actual numbers. But, numbers at times are difficult to interpret, so we have tried to basically say that everything looks good. That doesn't mean that we're not going to go into that house again. Some of the people have said, "Well, why are you coming back into my house when you said that everything looks good?" The reason we are is to be scientifically sound in our decision of the outer perimeter and the magnitude of the problem.

CONGRESSMAN MINISH: Commissioner, you indicated that you are going to be able to get the records of the company, and then you also said that the company is no longer in existence.

COMMISSIONER HUGHEY: The company that operated the facility that we're looking at is no longer in existence, but there is a company there that is in ownership of that company.

CONGRESSMAN MINISH: Oh, there is.

COMMISSIONER HUGHEY: There is still--

CONGRESSMAN MINISH: So, they share some responsibility for the costing.

COMMISSIONER HUGHEY: Well, if we can show that the fill really came from there, I think that that is a requirement both under our Spill Fund, which will be triggered at some point, whether it is now or after the emergency money from the Governor, and under Superfund.

CONGRESSMAN MINISH: Thank you. Thank you, Mr. Chairman.

ASSEMBLYMAN McENROE: I have one more question for Dr. Dewling. Did the experience in Colorado require any soil removal.

DR. DEWLING: Yes, there was some. We are confident that we can remediate the area without moving or buying houses or anything like that. We can remediate the homes without any question, and as far as the soil is concerned, there are different ways of passively or actively solving that problem. If we have to go to removal, then obviously, as Bob mentioned, the biggest problem is going to be where. We obviously are not going to dig it out of the ground until we can find a place to put it. We're not talking about ten drums worth if that action is going to take place.

The most important thing is that we are not coming in here two months from now, three months from now, or five months from now with some earth-moving equipment. We have to define the magnitude of the problem. The perception is that we have got some massive movement scheduled. We do not. If any movement is going to take place, as you can see it here, it is selective. It will be selective, based on the corings.

ASSEMBLYMAN McENROE: I have one other quick question. Did you, in your remarks, address the possibility of a loss in real estate values? I know there has been some comment regarding payment of taxes and other assistance, but how about the potential for the loss in a family's investment? Is Superfund cognizant of that?

DR. DEWLING: Under Superfund right now, the way it is written, there is no third-party liability or third-party claims that are allowed, so that is an issue that will have to be addressed. Right now, there is no ability for Superfund to take that into consideration.

ASSEMBLYMAN McENROE: Okay, thank you.

SENATOR CODEY: Thank you. Commissioner, let me just make this clear. There isn't now, or you don't project there will ever be, a need for any evacuation of any homes. Is that correct?

COMMISSIONER HUGHEY: That is right.

SENATOR CODEY: Okay, I just wanted to make that clear and to set the record straight on that. I want to thank you for testifying. Dr. Dewling, are you going to stay to testify?

DR. DEWLING: Not really.

SENATOR CODEY: You don't feel--

DR. DEWLING: Basically, we're here as technical assistants from the State, and we just wanted to indicate to you that we are looking over options and trying to better define the magnitude of the problem. We're looking at some new techniques equivalent to side-looking radar, which is a side-looking scanner for gamma radiation, if people won't allow us on the property.

We recognize that the only way to do it is by putting cores in so we can figure out how deep this material is.

SENATOR CODEY: Commissioner and Mr. Kuhrtz, I just want to tell you that my office has received no complaints at all about the State officials or the Federal officials. It seems to me from everybody whom I have spoken to that you have cooperated with them, which is sometimes a miracle in government -- that all levels are cooperating, and no one is complaining. So, I want to congratulate you for that. I certainly hope that that continues to exist for what is really a very sad situation, but one that hopefully we're doing everything possible to rectify at this moment.

The last thing I ask of you, Commissioner, is that any press who would wish to speak to you, if you would just take that outside of the hearing room, I would appreciate it.

COMMISSIONER HUGHEY: Senator, let me conclude with two things. Steve is going to stay for the remainder of the hearing, so if you have questions that occur during the rest of the hearing, you can direct them to him.

Secondly, let me say on behalf of the people who have the original facility -- one of your communities -- that we told them yesterday, and I would like to make it a part of the public record, that we will be coming in in January to, once again, track the boundaries. We've done that once. We think we've taken the corrective action, but we're going to do it again.

SENATOR CODEY: Okay. In other words, you feel there are no homes in Orange that are in jeopardy at this moment, but you'll test again.

COMMISSIONER HUGHEY: Right. We're going to be back in January to test again.

SENATOR CODEY: Okay, thank you.

New Jersey State Library

CONGRESSMAN MINISH: Let me say one thing. I think it is interesting to note that Dr. Dewling was one of thirty-five executives who was honored by the President of the United States yesterday -- was it, or was it the day before?

DR. DEWLING: Monday.

CONGRESSMAN MINISH: Monday. Congratulations, Dr. Dewling.

DR. DEWLING: Thank you.

SENATOR CODEY: Our next witness will be the County Executive for Essex County, Peter Shapiro.

P E T E R S H A P I R O: Thank you very much, Mr. Chairman and members of the Committee. I have some written testimony which I've placed before you. I'm going to try to highlight from it just in the interest of time, because I know your schedule is probably pretty compressed and that the previous speaker is really the principal reason why you are here.

First, I appreciate you inviting me to testify here before you today. I want to say just for the record that our experience with the State and Federal experiences on the County level has been very positive. They have been extremely helpful in working with us, and they have been very open and good with us. I know there have been some communication problems with the local communities, but I don't want to reflect on that because I'm not really an expert on that. Our experience though has been a very positive one.

I want to talk in particular about the question of public information that is available on the issue of the health hazards posed by the environmental substances here. This is a question which has been very troubling for many of our citizens, which really speaks to a gap in government's response as a whole. I'm saying this not to point it at any level of government -- the Federal, the State, the County, the municipal -- but rather to say that there is a need that ought to be met there.

Basically, it works like this. As soon as there is an announcement along the lines of the finding of radiation in Montclair, Glen Ridge, and West Orange, or similarly with the discovery of dioxin in Newark, or the improperly stored chemicals in Belleville, or any of the other instances like that, there seems to be a logical,

understandable, and immediate panic which sets in. That seems to be followed typically by scattered information, not all of it very accurate, that usually travels by word of mouth. Then finally, when the panic starts to ease, there seems to be a gnawing fear that replaces it, followed by an anger and a frustration at being so vulnerable to conditions which are very far beyond one's control.

The real need, I find, is for good, straightforward information -- a way to make sure that the layman will understand the toxic substances involved. That would be of enormous benefit, particularly during the first critical hours and days.

Part of the problem is that the information on this, which is supplied by professionals, is very often cloaked in explanations that include a lot of jargon and a lot of qualifying clauses. The information becomes very difficult to digest. Generally, there is a fair amount of skepticism. Typically the reaction that we've seen here, as well as in Newark and Belleville, was that "We're not being told everything." The qualifying phrases are certainly understandable from the perspective of scientists. They lessen the degree of certainty, of the hard and fast rules, and they give a wider range of probability than a simple cause and effect analysis would provide. When disseminating information, however, overqualifying is often interpreted as hedging. People need to know facts and need to know them quickly in this case.

When initial information on radon was given out, for example, it was not as straightforward as it might have been. It was important to say that the most basic fact about radon and the danger which it poses is the increased risk of lung cancer. That in itself is very frightening. The fear became compounded, however, when people came forward thinking that the substance might cause brain tumors, birth defects, inflammation and damage to the respiratory tract, or any other number of ailments, all of which are not attributable to radon according to all of the scientific information that we have. Because the health information was not clear when people found out about the radon, they came forward with health symptoms they considered significant, and there was undue apprehension about radon contamination.

A series of easily distributed packets -- pamphlets with information in them -- a kind of a citizens guide to toxic substances -- should be prepared in advance about toxics, so that they would be available for distribution immediately, when it becomes necessary.

Government has a clear responsibility to alleviate fears if they are groundless and to give specific information about the very real health problems that do exist. This is not the case today.

The fear is as real to a person when it is based on imagined or perceived data as it is when it is based on fact. Government can eliminate a substantial amount of the unfounded fears if information is distributed quickly and clearly.

Secondly, when a toxic substance is discovered, the first normal question, of course, is for health and safety. When one thinks beyond that, there is another cause for anxiety. If there is a health problem, what about the cost of treatment? What about the loss of wages if a person becomes ill? What about the concern that property values might decrease? You touched upon that in your earlier discussions with prior witnesses. The truth is, the State needs to act to establish a better legal framework of compensation for human and economic harm, the kind of third-party claims that Dr. Dewling referred to -- all of those costs which are not attributable to cleanup, which is covered today. Everything but that is really not very clearly covered. These impact very heavily on people's lives and weigh on them very heavily when they are thinking about their mortgages and their escalation of property values that they were counting on to make good for them.

Action has already been taken to introduce measures in the Legislature that seek to address financial concerns and to establish Certificates of Clearance from the DEP to homeowners stating if a home has been tested and found to be considered safe.

However, other than that, very little has been done. There is a clear need for legislation both on the Federal and State levels that would provide a framework within which a citizen can be compensated for economic losses sustained as a result of hazardous or toxic waste incidents not covered by existing clean-up funds. DEP has been extremely creative in figuring out ways to apply existing monies

to these purposes, but in order to better deal with this side of the problem, it should be clearly and directly addressed by the Legislature.

Finally, newspapers have carried stories recently about the County's plans to establish an Environmental Health Agency. Rather than go into all the elaboration in my written testimony here, I've got a little bit of an outline for you. Basically, what it attempts to do is make use of the existing framework provided by the Legislature under the 1978 County Environmental Health Act, which became effective in 1980. The Act was never funded, but in part, through fees, and in part through grants and direct County support, which we plan to apply to it, we will begin to implement that Act here under the framework which is provided to do a variety of things, including investigation of citizen complaints, monitoring of various State statutes, rules and regulations, reporting of violations, some low-level enforcement, and things like that. Obviously, the Legislature wouldn't have passed this law if it was intended to be a duplication. It is really meant to be basically a back-up to make sure that monitoring is done, which today, the State and Federal governments recognize that they are unable to do because of the tremendous pressure and critical need for their attention on incidents like this.

I would just like to end by saying that the State DEP and the Department of Health have acted admirably in their efforts during this very hectic and trying time. There is a need for unity in the joint effort to resolve the problem before us, and that means cooperation among the State, the County, and the local municipalities, as well as the Federal government. The job is obviously--

(Power outage)

SENATOR CODEY: We have been joined by Assemblyman-elect Stephen Adubato. Steve, would you like to testify and then join us at the table?

MR. ADUBATO: Yes.

S T E P H E N A D U B A T O: Good morning Chairman Codey, Assemblyman McEnroe, Committee staff, and Congressman Minish. I'm very glad to be here this morning as the new Assemblyman in the 30th Legislative District, the district which adjoins this one, and a

district that takes in two towns which have been affected by this most recent situation regarding radon gas -- my home town of Montclair, as well as the Town of Glen Ridge.

I want to address myself particularly from my point of view as it has to do with the responsibility of a State legislator who represents a community that has been affected adversely like this.

A legislator must react to a crisis situation through a number of actions. The crisis in this instance is obviously the radon gas found in Montclair, Glen Ridge, and right here in West Orange. The first responsibility of a legislator, particularly one who represents an affected area, is to ensure an accurate and free flow of information in layman's terms from the State agencies involved -- in this case, the Department of Environmental Protection, as well as the Department of Health -- to both the community at large and the elected officials who represent those communities.

Many times this involves translating technical, bureaucratic data to a language that people can understand. Inaccurate information is one of the worst things that can happen in this situation. By allowing people to receive their information initially from the mass media -- television to be exact -- we allow members of our community the possibility of getting their information without any opportunity to answer any of their questions regarding their health, property values, or their children -- in short, their lifestyles. Misinformation can have a tremendous psychological effect that is not to be understated.

I have listened to people's fears and concerns enough to know this to be a fact.

Deviating from my testimony for a minute -- I see there are several people here in the audience who are elected officials and who live in the community that has been affected in Montclair. I live just a few blocks away from that neighborhood. Being part of those community meetings and listening to people talk in very human and real terms about their fears, in many ways, brings us back to the reality of the situation. Although this hearing is particularly important to air these concerns, it is that point of view that I bring here, because those people, as individual residents who have been affected or potentially affected, don't have all the opportunities that we need to

afford them to ask these questions. That is the particular point of view that I am concerned about.

The State must act first and foremost to ensure the safety of its citizens. That is paramount. In this particular situation, safety not only means safety from immediate danger, but also from the long-term effects of radon gas. Once this is satisfied, then and only then issues such as property damages or damages to property values must be addressed.

I have studied this aspect of the problem and will be introducing legislation to amend the Spill Compensation Act. In this case, the State is clearly limited in their action because the existing law is not applicable. The Spill Compensation Act was originally for oil spills and has gaping holes in this area. Health compensation and property devaluation are not applicable, and they are very complex issues respectively according to a study conducted by the nonpartisan Office of Legislative Services. This Act will be amended so as to give the Department of Environmental Protection a clear legislative mandate to address this particular mishap as well as future ones.

I have also prefiled legislation requiring a Certificate of Clearance for homes that have already been checked for radiation. This Certificate clears people's homes as it has to do with radon gas contamination. However, this Certificate of Clearance does not in any way waive the State of future liability for any compensation.

In closing, a legislator must be the middleman, acting to ensure that State agencies carry out to the fullest the laws of the State that promote and protect the health and welfare of its citizens which this Committee is most concerned about. I would like to thank the Committee and its Chairman, Senator Codey, as well as Assemblyman McEnroe, who represent two communities in this district that are particularly affected -- one being West Orange, and two being Orange -- mainly because of the media attention that has been focused on it as it has to do with the history of where the radon gas comes from or does not come from.

I would also like to thank you for allowing me the opportunity before I take office on January 10 to express my concerns and the concerns of the people whom I represent in the Towns of Montclair and Glen Ridge. Thank you.

SENATOR CODEY: Thank you, Assemblyman. Please join us.

Mayor Spina, do you wish to testify? (affirmative reply)
Councilman Brennan?

MAYOR SAMUEL SPINA: Mr. Senator, Councilman Joseph Brennan is also with me. I would like him to join us.

I am Mayor Samuel Spina from West Orange. First of all, I would like to welcome you, Senator, and all of the people here today to West Orange. I would like to thank you for the opportunity to testify, and I also appreciate the concern that you have shown for this very real problem. Not only are you holding the hearing today, but you were at the meeting the other evening when there was a group of residents from the municipality there to hear what was happening.

I would like to also commend DEP for the fine work they have done to date. The meeting I attended, I thought, was very informative. They did a very fine job of helping to allay anxieties.

As I see it, there are two problems -- two areas that are probably the most important things to any person -- that is, the health and well-being of themselves and their families, and their homes. A home, of course, is a monetary investment.

The immediate action that is being taken by DEP is excellent. They are moving into the situation. But, I always have that question: Will they love me as much in 1985 as they love me in 1983? It seems as if many times programs start out, everybody is enthusiastic, and everything is done just so. But, then it seems to taper off, and the next thing you know, nobody really cares about it anymore. It just seems to disappear into oblivion.

I would hope that somehow that problem does not exist here, and that this will be an ongoing situation and that we will have ongoing protection for our people, so that they will be ultimately cleared, you might say, of any problems in their homes.

I would like to mention now the medical aspects of a person. I would like to request that -- and I don't know the particular agency that would handle this -- but, I would put this at your doorstep, Mr. Senator -- that the people who are directly involved be given permission or be given a medical examination from a physician of their choice to find out if they do have any problem, or if there is a

precursor of a problem. If a person is developing lung cancer, or there is some problem that exists in the health and well-being of that person or his family, I think it would be terribly important that the person be removed from the house, and that he no longer live there if the radon gas is emanating into the home.

SENATOR CODEY: I just want to point out to you, Mayor, that there is someone here from the Department of Health who is going to testify shortly concerning the health effects.

MAYOR SPINA: Fine, thank you. The other point dealing with the person's home, and this has been mentioned -- that some sort of certificate of habitability or Certificate of Occupancy, if you're using the building trade jargon, the issue to a person -- not only for his home, but for the homes in the immediate vicinity--

When a person hears of the problems that exist in this area of West Orange and Montclair, they are going to be very hesitant about purchasing a home there. So, a person who currently lives there, and attempts to sell his home, is going to have a hard job. Is it possible -- again, I would address this to you, Senator -- that some sort of legislation could be passed in which a person who does not get market value for his home if he did put it on the market to sell -- would it be possible for him to receive some just compensation to make up the difference of what they do get for his home or what it is sold for and the price that an independent appraiser -- I'm not talking about the real estate agent who is trying to sell the home, because that could be an inflated figure. But, if some sort of independent appraiser could establish a price for that home--

We not only have to look at it from that point of view -- the sales of the homes -- but, also, what about tax appeals? These people could probably very easily appeal to the County Tax Board, and I'm sure the value of their homes at the present time has been depressed.

What about the communities that are involved? Will it be that not too many homes are involved? It does affect the community in the intake of taxes.

Thank you very much for this opportunity. We appreciate you being here, Senator.

SENATOR CODEY: I thought you raised two very good points in regards to the resale value versus the value of the home before this problem was made public. I commend you for that, and I assure you that we'll try to do something legislatively with regard to those two problems and the taxes that you raised.

Are there any questions, gentlemen?

ASSEMBLYMAN McENROE: I just want to commend the Mayor for his very direct and aggressive testimony, as usual. I would also like to commend Councilman Brennan.

MAYOR SPINA: Thank you, Mr. Assemblyman. Thank you for your interest. Senator, as I said to you, I commend you, because as soon as this problem came to your attention, you were on the phone with me wanting to know what was happening, when the meetings were being held, and you did attend the meetings.

SENATOR CODEY: Thank you for your hospitality too.

Our next witness will be the Council President for the City of Orange, Paul Monacelli.

P A U L M O N A C E L L I: Thank you, Senator Codey, for granting my request to come and speak before your Committee.

Our position in the City of Orange is, I feel, both rational and reasonable. There has been much attention given to the problems in Glen Ridge and Montclair, and it has been alleged that the contaminated fill that could possibly have caused this has come from the U. S. Radium site in the City of Orange. That is an allegation that remains to be proven. However, there is one fact that is very crystal clear in my mind, and that is, for many years, during the operation of the U. S. Radium plant in Orange, thousands of tons of contaminated waste were dumped on that site.

We feel in Orange that we would like to be included in this continuing and broadening investigation by the Department of Environmental Protection at both the State and Federal levels. There has been recent activity in that area of excavation and construction which may have created additional problems.

I think our immediate concern is that testing be made in that area so that the residents feel secure in the fact that they are not subject to any health hazards. If any health hazard is determined, we should deal with it properly and with the utmost dispatch.

You then deal with another problem that I don't know if you are aware of. Everyone has seemed to focus in on the U. S. Radium site on Alden Street, but it has come to my attention that there are other sites in the City of Orange where radium dial watch painting was conducted. I would hope that the Department of Environmental Protection would conduct tests in those areas also.

Finally, I would like to talk about the problem of cleanup. We feel that it is imperative that the City of Orange be included in any clean-up program that is developed out of this particular incident that has occurred in our area.

That really concludes my testimony, although I would like to state one other point. I am in total support of Mayor Spina's proposal to deal with the problem of homeowner equity and taxes. Additionally, some of the property in that area, the City of Orange had purchased for a playground, and because of this problem, we are no longer able to use it for that purpose.

I thank you for your concern. I know that in the past, the elected officials who I am speaking for, have always represented Orange in the same manner as they represented every other community. I would hope that the Department of Environmental Protection will also treat us with the same equality.

Thank you.

SENATOR CODEY: Councilman, the property that we are speaking about -- the radium site -- correct me if I'm wrong -- a few years ago, the State said it would be all right to purchase that site and to put a playground there. Am I correct?

MR. MONACELLI: That is correct.

SENATOR CODEY: So, with that information, you proceeded and bought the site, and later found out that that decision was wrong. So, you're asking that the City be compensated then for the monies used to purchase the site when the State has said that it would be more than okay to construct a playground there.

MR. MONACELLI: We feel that that is a reasonable request, Senator.

SENATOR CODEY: Thank you very much.

CONGRESSMAN MINISH: Mr. Councilman, first of all, I would like to congratulate you on your statement. If there are any areas that you feel should be looked into, I would appreciate it if you would let our office know where they are so that we can get the Federal EPA involved.

MR. MONACELLI: Thank you.

SENATOR CODEY: Thank you again, Mr. President.

I have both Councilwoman Bobby Reilly and the Township Manager, Bert Kendall, from Montclair. Would you like to testify together or separately?

B E R T R A N D K E N D A L L: Bobby, would you like me to start?

MS. REILLY: Yes, please.

MR. KENDALL: Okay. First, thank you for allowing us to come, Senator Codey, Congressman Minish, and Assemblyman McEnroe. Before reading this very short statement, I would like to qualify it with a few remarks.

The working relationship that has been stated between ourselves and the Township of Montclair, the DEP officials, the EPA people, and the State Department of Health has been excellent. The criticism that I am going to mention is about a policy; it is not about individuals. Our hope is that the next time that an environmental health problem occurs in a community in New Jersey, the State agencies will be perhaps a little better prepared to deal with it. So, the criticism is of a constructive nature, I hope.

Thank you for giving me the opportunity to speak. When I announced this hearing at the Township Council Meeting on December 13, the Council asked that I thank the Senate Committee for holding the hearing, and they suggested that a second hearing be held in the evening when working Council members and the public could be present. The Council feels that the 10:00 A.M. time will cut down on the public comment that the Committee might receive.

Montclair has been living with the radiation problem since the famous press leak of November 30, 1983. It has been a difficult three weeks, but now both affected residents and Township staff are learning to cope with the situation. Almost forty EPA, DEP, and State Health Department officials have taken up residence in our municipal

building, and other than a crowded parking lot, we are getting along very well. The State has offered to pay for any extra expenses in the way of copier use, telephone hookups, etc., as they should. Their setting up an Information Center in Montclair has made State DEP and health officials available for conferences with residents, citizens committees, and others during evening hours and on weekends. EPA technicians and contract personnel have started remedial work with their impressive mobile labs, field teams, and experts flown in from Alabama, Center of Disease Control in Atlanta, and Colorado. Thus, I have no problem with the present officials and staff members who the State has assigned and who are presently working out of the Montclair Municipal Building.

However, I have a serious concern about how State departments and agencies treat their municipalities. It has been obvious from the beginning that municipalities are often treated as stepchildren, and that we could not be trusted with confidential information. This has created a credibility gap between State agencies and the public, and between State agencies and local government officials. We are all working hard to overcome this.

For example, DEP tried on their own to contact the original twenty-seven affected homeowners in Montclair. They didn't notify us until after the fact, and were unable to gain entry into ten homes. Montclair officials could have easily gained entry into those ten homes.

At a recent Task Force meeting, DEP officials mentioned that they needed citizen input to get the names and addresses of local heating and ventilating contractors who could perform some of the remedial work. Why weren't local government officials consulted? We work with many local contractors, and within several hours, we could have given them an extensive list of heating and ventilating contractors who already work with our building inspectors, Federal Housing programs, etc.

I would just like to detract from that for a minute. We are here in the West Orange Municipal Building. Obviously, they have a strong professional staff here, as we like to think we have in Montclair, Glen Ridge, and Orange. If I were an outsider coming into

West Orange, the first place I would stop is here. That is the point we're making.

DEP has done a good job of keeping local officials informed after a rocky start, and evidence of this is the briefing held yesterday by Commissioner Hughey and his staff for the local government officials of the involved municipalities. This is a positive step and points out their willingness to belatedly take us into their confidence and work with us in the future.

Montclair officials are annoyed that the State Department of Health has not shown the same spirit of cooperation. Recently the Montclair and Glen Ridge health officers have had to write the State Department of Health requesting health history information about the Montclair and Glen Ridge homeowners. This information was gathered with the assistance of one of our nurses, but we are now not privy to the results of that survey. We are certainly just as able to keep health information confidential as the State Department of Health in Trenton, and in fact, there will probably be more use of such information here in Montclair. We run many health clinics out of our municipal building, and we have excellent health and nursing departments. It is insulting to be told that we cannot be kept in the confidence of the State Department of Health, even though we have kept hundreds, if not thousands, of confidential health records over the years.

I thank you for this opportunity and suggest that an additional public hearing be held on an evening after the holidays. I would be happy to arrange a suitable room location in Montclair at either our Municipal Building Council Chambers or a public school.

Thank you.

SENATOR CODEY: Are there any questions of Mr. Kendall? (no response)

I understand and appreciate your comment, especially when we are dealing with people of a middle-class background who live in these homes and their obvious problem of coming to a meeting that is held during working hours. If we feel the need for another hearing, I can assure you that it will be done at night.

Bobby?

D O L O R E S "B O B B Y" R E I L L Y: Thank you very much, Senator Codey. All of the homes that are affected on these graphs and charts are located in my ward.

On the Thursday morning after the New Jersey Nightly News program -- the Wednesday night preceding -- I spent the entire day in one of the affected homes. It was the home of a very dear friend of mine who died ten years ago with lung cancer. I had access to all of the neighbors, many of whom are now having psychological problems and whose children need counseling because other children are pointing them out as children who live in bad homes. Anyone who has ever seen that area knows that that indeed is a very lovely residential neighborhood.

I can only reinforce what our Town Manager has said. I sat in on the medical briefing with the five-minute questionnaire that was used to question people who lived in these houses.

People can always find Town Hall. Sometimes they never go to Trenton, they never go to Washington. They come to my porch. Therefore, if locally elected officials have that kind of contact with their constituents, it is very distressing to me to find out that I do not have the kinds of information or the resources available to answer their questions.

We called an emergency meeting for the following Thursday. There were over a hundred residents at that meeting. Luckily, the two gentleman -- Mr. Kuhrtz from DEP and Dr. Parkin from the State Department of Health -- were convinced by us that they should stay and answer the citizens' questions. No one can become an overnight expert on something as complex or technical as this particular situation.

When we were informed that we could not keep the questionnaires locked up in our own Department of Health, I was very upset, because based on the way the questionnaire was designed, it would have been very easy to have obliterated the names of those individuals who had answered that particular questionnaire. I feel that the local municipalities have to be involved more so than any other structure of government. People find Town Hall, and they come to Town Hall. I've worked in Trenton, and I know that they occasionally do show up at the State House, but not with the regularity or with the violence sometimes that they can find 205 Clairmont Avenue. So,

whatever mechanism is put into effect, you must involve the local municipalities. We are the first contact that people have with government. Therefore, to exclude us from any part of the process, I feel, is very, very undermining to our response and our attempt to communicate and answer our constituents' problems. I can only reaffirm what the Town Manager said and what Mayor Spina said about property values.

They talk about venting, but how long will the venting have to be in place? How long will the trenching have to be in place? Those are questions that you need to have answered.

The life of radium is 1600 years. The venting of radon gas in the air is 3.8 days. So, those are questions that have to be answered, and not superficially. I am not saying that anyone is, but those are questions that have to be answered indepth. The elected officials and administrative staff of the municipalites have to be informed.

I don't know for certain, I don't have any idea of what the Landfill Disclosure Act is concerned with. However, the Town of Montclair is in the process now of developing an urban renewal area that has been there for twenty years. When the developer brings in landfill, is there any way of tracking it -- of putting it on a computer -- where he got it from and where he is going to put it? If you have excavation problems, where is it dumped? No one really knows. What I am saying is that there should be some mechanism in place now before our urban renewal area is developed and homes are built, as well as a commercial section, to find out where the developer got this landfill. Then, if this ever comes up again, you won't have this difficulty in trying to track down landfill. It may be part of the Act; I don't know. I would like you to consider that.

Also, it is very important to locally elected officials -- I have contact with people who live in that area that no one else has, and I have had people call me who live in the area, and who want to be part of the process. They know of four or five people who have died from lung cancer and who lived in the same area. There may be people who moved away from that area and who do not have lung cancer, but maybe they will stop smoking if they know they have been exposed to

that kind of risk. So, it is very important -- more than important -- I can't stress it hard enough -- that the locally elected officials, as well as the local administrative staff, be involved in any process dealing with this. The immediately impact is on the locality -- the town in which the people live.

Thank you.

SENATOR CODEY: Bobby, I appreciate your sentiments, as well as those of Bert. Mr. McEnroe, Congressman Minish, and I weren't notified any sooner than you were. We weren't given any notification either. When I raised that question to State officials, my understanding was that it was done to help those residents who were affected, so that the particular houses that are involved were not disclosed in the press. It was a concern for their own welfare that we elected officials were not notified. That was a mistake, and I think it has been rectified.

MS. REILLY: We were notified that indeed the survey had disclosed two areas in my ward with high gamma radiation. I asked the Town Manager to write the one lady a letter so that she wouldn't awaken the next morning and see it in the newspaper. He did do that.

In September, the Glen Ridge newspaper had a picture of the map on the front page, and in October, we were told that the DEP would be finished with their survey and their findings as of November 11. I asked for the findings on November 29, and the next day, everything broke loose in the media. Therefore, I know that this occurred unfortunately in a blaze of media hyperbole. No one is actually to blame.

What I am saying is, after it happened, I think that we all were involved and we should not have been left out. Once it got into the media, I understand those people whose houses--

(Power outage)

I can understand why people would not want anymore of it. However, I still feel that there was a way of maintaining a confidentiality without excluding the locally elected officials. That is all.

SENATOR CODEY: Okay. Regarding those health problems you brought up, we have one more witness, and then the person from the Department of Health will speak about those concerns.

MS. REILLY: I feel that that particular health survey should be expanded, and the five-minute questionnaire, which is the standard questionnaire that the State Department uses, I don't feel, and some of the professional people who are involved in the Ad Hoc Committee -- Montclair has a very diverse community. We have a nuclear physicist and we have health people who are involved, not only on our Task Force, but on the Citizens' Committee as well. They feel that the rather brief medical questionnaire definitely should be expanded.

SENATOR CODEY: Okay, thank you very much, both of you.

Mr. Joseph Fonzino, Director of Health of the City of Orange and Deputy Director of the Town of West Orange?

J O S E P H F O N Z I N O: Thank you, Senator. Senator, as a local health officer and President of the Essex County Health Office Association, I would like to take the opportunity to say something that we usually don't have the opportunity to say. That is, thanks to the State. I think that Bob Hughey and Steve Kuhrtz and their staff should be commended for not only their leadership role and their assistance, but also for the cooperation that they gave the local municipalities.

On the other hand, I think that this situation was also an example of how well local municipalities can work together and how necessary they are as the front-line people to be involved with the residents that they face and see everyday, much like what Bob stated earlier.

I think, Senator, that this should be a statement to you as a leader in the Legislature -- that the local health departments and the local municipalities really need your support. We're there when the State needs us, and we don't think, as an Association, as Health Department people, that another layer of bureaucracy is what is needed. What is needed is more support to the local environmentalists, the sanitarians, the health officers, etc., so that they can continue to be this front-line person to reach out to the people when a crisis situation develops like the one we have here.

I would like for you at least to consider changes in the Environmental Health Act that would continue to allow local health departments to be that front-line people.

Thank you.

SENATOR CODEY: Are there any questions? (no response)
Thank you very much, Mr. Fonzino.

Our last witness will be Dr. William Parkin from the Department of Health of the State of New Jersey. Dr. Parkin?

D R. W I L L I A M P A R K I N: Thank you, Senator. Commissioner Goldstein extends his apologies for not being able to attend today. Schedule conflicts that developed late yesterday prevented him from being here. He ask me to attend in his stead.

I did not have the opportunity at that point in time to prepare a statement to present here this morning, so I basically came to answer any questions that might arise.

There have been several questions that have arisen as I've sat in the audience listening. One related back to medical screening being considered for individuals in the communities relating to health effects related to radon exposure. The only known health effect that is established for radon exposure, or is strongly suspected, is lung cancer. We've considered this from the beginning, we've made statements to this effect from the beginning, and decisions were made early on with consultations with the Center for Disease Control in Atlanta, with nuclear physicists from EPA and other Federal agencies, with health authorities in other states who have had this type of problem before, such as the Grand Junction, Colorado problem, and a very similar problem in Monticello, Utah, along with some of our own occupational and Board-certified physicians in our Department.

A decision was reached early on that there was no health screening or physical examination that was appropriate for this type of exposure -- that there are no programmatic signs, no changes in blood chemistry or blood components, no urinalysis -- no sampling techniques of any type that would determine whether an individual was going to develop lung cancer or not. An individual developing lung cancer would be showing many of the warning signs of lung cancer, and certainly, if they are showing those types of symptoms, they should be consulting a physician regardless. This could involve extensive coughing bouts, coughing up blood, thick phlegm, and a variety of other general signs of lung cancer along the way -- difficulty breathing. So, a decision was made early on that there was really no meaningful physical

examination or health screening that could be conducted in this instance.

We decided at that point in time not to offer or even suggest such testing unless someone could propose a test that would be of some value to the people.

Let me go back to a couple of things that have been done by the Department of Health in looking at the lung cancer study. First, you are aware that the Department developed a Cancer Registry in 1979. That is sensitive down to a municipality level. We accessed the Cancer Registry for the two communities of Glen Ridge and Montclair, looking precisely at lung cancer, but additionally at total cancers in both areas. We found that the observed cancers for the years 1979 and 1980, which are all we can access in that way at the present time off of the Cancer Registry -- soon we should be able to get the 1981 data back -- showed essentially that the levels of total cancer, and particularly lung cancer, were what would be expected based on the Third National Cancer Survey. We additionally accessed the Cancer Registry abstracts up through the current time for all cases of lung cancer from those two municipalities, and we compared those specific abstracts back with the addresses that were under consideration in this instance. We failed to find any documented reported cases of lung cancer from those thirty-seven initial residences.

The expanded 260 residences, or the forty-plus positive residences at the present time, have not been compared that way. That is a simple matter when we get those specifically identified to us by address, which I should have on my desk today.

The third thing is the small questionnaire that was administered. It was administered to the initial thirty-seven houses. On current residents of those house, 142 individuals took part in this questionnaire. There were five cases of total cancer reported from members of these current households. These could be living or deceased residents.

SENATOR CODEY: That is out of how many households?

DR. PARKIN: Out of thirty-five households. One individual was away on vacation, one individual completed the questionnaire and subsequently requested verbally to me that her information not be

used. I'm simply holding that in abeyance awaiting a written statement from her requesting it back.

SENATOR CODEY: But, out of thirty-five homes--

DR. PARKIN: One hundred forty-two residents--

SENATOR CODEY: Of those thirty-five, five--

DR. PARKIN: There were five cases of total cancer.

SENATOR CODEY: When you say total cancer, what is your definition of total cancer?

DR. PARKIN: Any form of cancer. There was one skin cancer, one breast cancer, one ovarian cancer, one lung cancer, and -- off the top of my head, I can't bring back what the fifth was. Out of those, what we were concerned with, of course, was the lung cancer.

SENATOR CODEY: In regards to the Registry proportionately, is that higher than you would--

DR. PARKIN: That is lower than would be expected. Out of one of these groups, whether it was total cancer--

SENATOR CODEY: In other words, you could take a random sampling of 142 residents--

DR. PARKIN: One hundred forty-two people, age, sex adjusted, race adjusted--

SENATOR CODEY: And, expect to find five people with cancer.

DR. PARKIN: We can use that number, yes. We would have expected to find a few more than five, so it was a little lower than we expected, but in the ball park. Perhaps six was the expected, but observed was five. That we considered to be right on the mark.

Out of the initial 142 interviewed, we have found nothing to indicate a radon cancer problem there at the current time.

SENATOR CODEY: But, of course, Doctor, you have no way of knowing what effects it might have had on people who have since moved away.

DR. PARKIN: That is true. The next activity we are going to carry out is the additional homes that had the elevated cancer readings -- we're going to go after the current residents there. Additionally, DEP has conducted a deed search on the initial thirty-seven homes, which they have promised to supply me with the names of the owners of those homes. That will be the beginning of our efforts to track down the past residents.

Anecdotically, quite a number of the current residents have given us information regarding past residents and their health histories. We will incorporate that with the results of the deed searches to track down as many of these individuals as is possible. Those are projected activities. Current residents could be done within the next week or so -- the additional current residents. The past residents -- that activity, I would think, would begin after the start of the new year.

SENATOR CODEY: Okay. Have you informed the residents of those dangers and the fact that at this point that smoking would only--

DR. PARKIN: Yes, sir, that has been pointed out to them at numerous public meetings that I have attended, and several that I'm sure other individuals have attended in my stead. Additionally, the Department prepared a fact sheet Friday which we have attempted to hand out to all of the residents who had been involved in this. It was handed out at public meetings, and additionally, it was to be handed out as our people went door to door with the questionnaire. Part of the fact sheet did have information on it about smoking and about the increased risk among smokers for radon exposure.

SENATOR CODEY: So, in other words, if you had lived in a home for an extended period of time, and had smoked a couple of packs a day, the effect of the radon gas would be that you were a four-pack a day smoker?

DR. PARKIN: Or, perhaps even higher, yes. Plus, the great concern is that it is not just a risk to the smoker himself. Radon gas particles have a tendency to attach to dust particles, including particles that result from the smoking process. Sidestream smokers become important there. The individual who is in the household and who doesn't smoke is at an increased risk, not just the smoker himself.

SENATOR CODEY: Doctor, what percentage does a person who has lived in one of these homes increased their chances of getting lung cancer by being a resident of these homes?

DR. PARKIN: We initially started off saying that based on initial information, ten to fifteen percent of individuals in the general population could come down with lung cancer.

SENATOR CODEY: It increases his chances roughly about fifteen percent.

DR. PARKIN: It increases his chances. With further information that we got from the experts after we were a week or two into this, it was lowered somewhat. But, I would guesstimate that still their risk assessment, which is nothing more than a guesstimate, is probably in the five to ten percent range. It is still higher than people should have to be exposed to.

SENATOR CODEY: Okay. Are there any questions? Assemblyman McEnroe?

ASSEMBLYMAN McENROE: Doctor, in your opening comments, you mentioned that decisions have been made by the State Board of Health early on. Could you define that a little more closely as far as the importance of medical data is concerned? You said that had been determined early on. Does early on mean the middle of November, or does it mean 1979?

DR. PARKIN: No, we found out about this problem on November 28, right after Thanksgiving -- the Monday after Thanksgiving. The DEP brought us information and said, "There is a problem." They showed us the data and said, "We're going to need your input into this. We're going to need health advisories." That is when we stated working on it -- the Monday of the week that the story broke.

ASSEMBLYMAN McENROE: But, shouldn't the Department of Health in a State like New Jersey, with the pressure that we have been under for the past decade regarding industrial development and a chemical center that we are -- shouldn't the State Department of Health have a program and have prepared responses to these potential circumstances arising five or ten years ago?

DR. PARKIN: We've been developing that for the last three years. Three years ago, 1980, there was no Occupational Health Program, and there was no Environmental Health Program in the State Department of Health. In April of that year, those programs were created in the Division of Epidemiology and Disease Control. Since then, basically that section of our Division has been the section that has been growing. The Right to Know Bill, which I am sure you are both familiar with, is the latest proponent of that, and it greatly increases our staff and our ability. One portion of that bill, if you will recall, is a requirement that we develop just the type of forms

you are talking about, which Mr. Shapiro mentioned earlier -- forms related to 1,000 of the most common chemicals and the health risk associated with them. That is going to take virtually all of this year, with staff that is now coming on board starting January 1, to produce those forms. So, that is being developed.

Whether the next incident that comes along like this will be a chemical that is covered by one of those questionnaires, we don't know. There are hundreds of thousands of different chemicals out there. Radon probably would have not been covered by these forms the way that law was written.

The Bureau for Radiation Protection -- the State's radiation experts, if you will -- are in the Department of Environmental Protection. Our involvement is more on just certain health issues as they are related to us, rather than our routine day-to-day business.

SENATOR CODEY: Can I assume that the Department of Health will continue an ongoing health screening with former residents and current residents as well for years and years?

DR. PARKIN: As far as our resources will take us, yes. When we get to residents who we simply can't track down after a reasonable effort to do it, then we'll just have to consider how far we go with it at that point in time. We are not at that point yet. I cannot guarantee that we will be able to track down every single past resident, but we are going to make that effort.

SENATOR CODEY: Okay, so it is possible that years from now, we may find a health problem created as a result of a problem that at this present time we don't know of.

DR. PARKIN: That we don't recognize -- yes.

SENATOR CODEY: So, it is certainly possible that later on we could find a health problem that is created as a result of the radon gas that we just--

DR. PARKIN: That is possible. There has been a lot of research done elsewhere on radon, and the only health problem that has come up -- basically, these were in uranium miners, both here in the United States and I think in the Scandinavian area -- has been lung cancer. Occasionally, other things have been looked at with no positive results. Regarding the few instances where anything was even

equivocal on retesting and reexamination for this and other populations, the fact was not found to be present. There are other agents other than radon present in this instance. Simply, nothing is known at this point in time.

SENATOR CODEY: Congressman, do you have any questions?

CONGRESSMAN MINISH: Yes, I didn't hear the testimony, but I do have one question. Is the State Department participating in tracking down the individuals who lived there before?

DR. PARKIN: We are participating in that. As I said a little bit earlier, DEP has done a deed search on the initial thirty-seven homes. That have assured me that I have access to the results of that deed search. That will probably begin after the first of the year -- when we actually start trying to track them down. We've done the current residents in the initial thirty-seven homes. The next ones we are going to go after are the current residents in the new homes that came up as a result of the recent DEP/EPA testing.

CONGRESSMAN MINISH: The reason I asked that is that some years ago, there was a doctor from over in Mt. Sinai who was tracking down people who worked in the silk and dyeing process. That is probably long before your time. He came up with some interesting figures -- what happened to people who worked in that industry.

DR. PARKIN: Right. I'm trying to pull his name back quickly. I know it.

CONGRESSMAN MINISH: I don't know what his name is.

DR. PARKIN: Several of our staff are out of his program. They are pursuing this, along with other things. Part of our problem is a resource problem. We've got so many staff, and we are also responsible for the dioxin problem, which is not of concern here today, but it ties them up. They are also the same individuals who have to meet certain deadlines with the Right to Know Bill. There is only so much they can do at one time.

SENATOR CODEY: Are there any other questions? Assemblyman?
(no response) Okay, thank you very much, Doctor Parkin.

I just want to say that Mr. Kuhrtz is still with us if anyone has any questions of him. He is in the back of the room, and he would be more than happy to answer any questions.

That concludes our testimony today. Thank you very much for your participation.

ASSEMBLYMAN McENROE: May I commend you, Senator, for the leadership you have shown in bringing this Committee hearing to the Town of West Orange? The question we've reviewed is, of course, one of major interest, so I would like to extend my appreciation to you.

CONGRESSMAN MINISH: Let me add that this is the kind of constituent services that are not only necessary, but people don't forget when you are dealing with the health and welfare of the community.

SENATOR CODEY: Okay, thank you very much, gentlemen.

(Hearing concluded)