

# CALIFORNIA LEGISLATURE

SENATE SELECT COMMITTEE ON URBAN LANDFILLS

SENATOR GLORIA ROMERO, CHAIR

PUBLIC HEARING

## *DISPOSAL OF RADIOACTIVE WASTE*



RONALD REAGAN BUILDING  
LOS ANGELES, CALIFORNIA

MARCH 7, 2003

Senate Select Committee on  
Urban Landfills

*Disposal of Radioactive Waste*

**Senator Gloria Romero**  
**March 7, 2003**  
**Ronald Reagan Building**  
**Los Angeles, California**

SENATOR ROMERO: Can you hear me? I'm Senator Gloria Romero, Chair of the Senate Select Committee on Urban Landfills, and I'd like to go ahead and get this hearing started.

Let me just say before we actually begin in into anything, just some procedural issues. I'm going to ask everybody if you will please either turn your cell phone off or at the very least, put it on vibrate mode, If you do receive a call, I'm going to ask that you please go outside of the room in order to take the call.

Public restrooms are just outside of the auditorium. You can ask the staff sitting at the tables where the restrooms happen to be. There is a cafeteria upstairs, I believe? Okay, there is a cafeteria, second floor, if anybody does desire to take a break and get some nourishment.

Other than that, I'd like to go ahead and welcome folks to the first public hearing of the Senate Select Committee on Urban Landfills for this legislative session. I want to welcome Senator Martha Escutia to the hearing, as well. Also, I'd like to welcome Maria Armudian who is the legislative consultant to Senator Richard AlarcOn, member of this committee. Unfortunately had a schedule conflict. Cannot be here. And

Senator Nell Soto has phoned the Sergeants saying that she is on her way.

I would like to welcome and thank Dr. Diana Bonta, Director of the Department of Health Services, for being here today, as well as scheduled witnesses and of course, members of the public.

The hearing today will focus on only one division at the Department of Health Services. The Radiologic Health Branch. It is not intended, today's hearing, today's questions are not intended in any way to detract from the excellent work the Director and her employees at DHS do in so many other areas pertaining to health.

Certainly, though, questions have been raised in the Legislature and the press as to how well the Division of DHS is doing its job in protecting public health and the environment. Just two days ago, the State Water Board, a government agency charged with protecting the state's drinking water supplies, released monitoring numbers taken at 50 landfills throughout California. A sample of about ten percent of California's landfills shockingly, roughly half of them show radioactive contaminants. This is just one of the issues we will review today.

It is my hope that during the course of this hearing, we can reach a broader understanding of several issues involving low level radioactive waste in California, how it is regulated, where it is disposed of, and how the Department interacts with regulated companies that fall within its jurisdiction. Is the Radiologic Health Branch a classic captured bureaucracy too close to the industry it is designed to regulate? Is the Department of Health Services primarily a health management agency and not equipped to effectively police and protect the environment? Does DHS have the specific expertise necessary to follow the California Environmental Quality Act or does it make sense in an era of tight

budgets, to locate that authority within a government agency that works with CEQA as its primary mission? In the post-9/ 11 world, is the existing enforcement regimen sufficient to protect the public, and certainly the public's health?

We are on a very tight schedule today with many scheduled witnesses. Because of this, I would like to make clear that this hearing is not about legislation introduced in the current session of the Legislature. That will take place before the Senate Environmental Quality Committee later this month or next when it takes up the various bills. It will be necessary to move the agenda along and I would ask witnesses to address the issues posed by the committee.

On September 30th of last year, Governor Davis vetoed Senate Bill 1970 which I did author, a bill that would have required all radioactive waste above background to be disposed of in a facility designed and licensed for that specific purpose. Furthermore, the Administration did not support Senate Bill 1444 by Senator Sheila Kuehl who expressed an interest in being here today, but because of a commitment, could not. Did not support her bill that would have established tough and firm cleanup standards for sites contaminated with radioactive materials.

At the time that Governor Davis vetoed Senate Bill 1970 on September 30th of last year, the Governor issued an Executive Order declaring a moratorium on the disposal of decommissioned radioactive waste in municipal landfills. The moratorium did not, on its face, prohibit disposal of waste from active sites. That is, those not seeking licensed termination or the selling or transfer of radioactive material or soils to metal recyclers, schools, developers, and others. Furthermore, the moratorium made no mention of Class One or Class Two hazardous waste facilities.

The Senate Select Committee on Urban Landfills began its review of the Department of Health Services Radiologic Health Branch beginning in 2001 when the Committee To Bridge The Gap filed a lawsuit against the Department of Health Services claiming that DHS had deregulated low-level radioactive waste. In its complaint, The Committee To Bridge The Gap, an organization that spearheaded the fight that eventually stopped the state from burying low level radioactive waste in the desert at Ward Valley, alleged that DHS had adopted a regulation that allowing unsafe disposal of radioactive waste.

Under the standard adopted by DHS, waste that could result in doses to the public at levels considerably higher than those estimated for Ward Valley could be disposed of in municipal landfills and be sold to metal recyclers and schools. The materials could have ended up, might have ended up in your children's braces.

The Superior Court in Sacramento struck down the adopted regulations of DHS in April of last year, specifically rejecting the DHS claim that the regulations were more protective of the public than existing law. The judge ordered DHS to adopt new regulations, but this time to undertake an environmental impact report as required by the California Environmental Quality Act and to consider viable alternatives existing under federal law so as not to violate the administrative Procedures Act. The judge also ordered DHS to release to The Committee To Bridge The Gap information as to which municipal dumps had received low-level radioactive waste.

A year ago in March of last year, in a response to this committee DHS had claimed it could not produce data identifying locations that had received waste shipments because it lacked the resources to do so. DHS stated before a hearing that it would take at least four personnel years to

review the necessary documents, at that time citing no security concerns, only a lack of resources in being able to produce the data for the Senate Select Committee.

After the judge ordered the release of the information to The Committee To Bridge The Gap, DHS claimed it could not release the same information now because of security concerns raised by the September 11th attacks, yet this response, I believe, would seem to be directly contradictory to DHS's regulatory actions and its court defense. In adopting the dose-based standard of 25 millirem and decommissioning all waste below that level, DHS has consistently argued that radioactive materials below this threshold are completely safe. So safe, in fact, that they can be sent to municipal dumps located in the middle of California communities right in the midst of our homes, our schools, our churches. So safe, in fact, that the waste could be sold to metal recyclers to be put into kids' braces, put into jewelry, zippers, etc.

In April of last year after the Bridge the Gap lawsuit was heard in Superior Court, the State Water Resources Control Board began to monitor existing landfills to determine whether radioactive materials dumped there posed any threat to the state's groundwater or drinking water supplies. The preliminary data from that monitoring has just been released in the last two days. It's been reported in The Los Angeles Times, The Daily News, The Valley Tribune, and others.

Department of Health Services says they can't tell us where the waste went. Based on these numbers from this monitoring, I think we can now make a pretty good guess. The Water Board numbers reveal fairly clearly, I believe, that it went to Bradley, to Sunshine Canyon, to Puente Hills—the nation's largest operative landfill located in my district, and Brea in Orange County. And with only ten percent of the landfills

tested in California, we might ask what will we find when the remaining 90 percent of landfills are monitored, as I hope they will.

Today we will hear from the Department of Health Services. We will hear from The Committee to Bridge The Gap who filed suit against the State of California, and the State Water Board, among others to provide information about the status of the lawsuit and the Governor's moratorium. We will hear from the United States Environmental Protection Agency official about federal cleanup standards for nuclear contaminated sites and how they correlate to DHS standards.

We will also hear testimony from members of an Orange County jury that recently listened to DHS testimony concerning their regulatory responsibilities, and were so concerned by what they heard from DHS regulators during the course of the trial that they felt compelled to contact my office, because they believed that the public health and safety was being threatened.

It is my hope that at the end of this hearing we will reach a better understanding of five specific issues. Number one, can DHS regulate radioactive waste in a manner that fully protects public health and the environment? Secondly, how long will it take for DHS to comply with CEQA and the Administrative Procedures Act and adopt new standards protective of the public health. Third, in the interim, what is DHS allowing to be dumped into municipal landfills and specifically, where is the waste going? Fourth, what does the Water Board monitoring tell us about past regulatory and public health practices? And finally, of concern to me in particular is is low level radioactive waste below 25 millirems so safe it needs no regulation as DHS claims, or as DHS simultaneously claims, so dangerous that the California State Senate and the public can't be told where it is because the Osama bin Laden's of

the world might use it to make a bomb. Which one is it? I don't believe it can be both and I hope we can get some answers to that today.

I want to thank all for being here. I will reiterate I want to thank Dr. Bonta for her dedication and the work that she is doing on numerous health-related projects related to Healthy Families, to MediCal, to HIV education and prevention, to child nutrition programs and others. I would like to thank everybody for being here. I would now like to turn it over to my fellow senator, Senator Escutia, to ask if you would care to make any opening remarks?

SENATOR MARTHA ESCUTJA: I'm trying to gather my thoughts because frankly, I am stunned. I am stunned and I state that as from the perspective of a senator who represents Hacienda Heights right next to La Puente Landfill. I am stunned at the facts that have been alleged. I am angry and I frankly maybe think the Department of Health Services ought to be decommissioned, because \_\_\_\_\_ example, Diana, of extreme bureaucratic bungling, or outright, intentional efforts to not comply with the law, to ignore the elected bodies, the Senate and the Assembly, who passed this bill last year, only for it to be vetoed and actually it was not even vetoed. It was returned without signature, so there was not even any guts to actually, you know, actually veto it.

I am just, I can't believe that this is happening in California. I hope that today's hearing will be the first of many, Senator Romero. I applaud you for bringing this out to the open, for informing us legislators as to what's going on. And I just hope that once all the information is out there in the open under the scrutiny of sunshine, that we'll be able to develop regulations that protect the health of people. We are here to protect the health of people, we're not here to protect a reputation of a department. We're not here to protect the reputation of a governor. We

are here to protect the health of people. And from what I have been reading, the background materials, I frankly think that your burden to prove otherwise is going to be very, very stiff.

SENATOR ROMERO: Thank you. Maria Armoudian representing Senator Alarcón, would you care to make a couple of comments on behalf of the Senator?

MS. MARIA ARMOUDIAN: Just first thing, thanks very much, Senator Romero, for convening this. These are clearly matters not to be taken lightly. Very important issues and here to gather up as much information as we can to make the appropriate changes that need to happen in this state.

SENATOR ROMERO: Thank you. We're gonna go ahead and start with our first panel which is going to take a look at the status of the lawsuit against DHS, the status of the disposal moratorium that was issued by Governor Davis on September 30th of last year. We have a number of panelists. I'm going to ask you to please step forward to the table, all of you at the same time. We'll hear from each of you individually, but we will engage in dialogue.

Let's go ahead and ask that, I would ask for Director Bonta, and I believe your counsel, Barbara Yonemura is here with you. I'd ask you to please step forward. Attorney Larry Silver, have you, has he arrived? He's stuck in traffic. Okay, we understand that in Los Angeles. Dan Hirsch, Committee to Bridge The Gap, plaintiffs of the lawsuit; Mr. James Giannopoulos of the State Water Resource Control Board; Chuck White, Director of Regulatory Affairs for Waste Management. And let me state at the outset that Senator Escutja has indicated to the committee that she has a speaking engagement, I believe. You're the keynote

speaker at a women's environmental health committee shortly. She need to depart at 10:45.

SENATOR ESCUTIA: At Department of Water and Power, no less.

SENATOR ROMERO: Department of Water and Power. So we understand that she will be needing to leave shortly.

Okay, let me go ahead and thank everybody for being here. We do have mikes. I'm gonna ask that we move them as we need to speak, because we don't have mikes for everybody, but we will ask you to please share the mikes. I'm going to ask, Mr. Hirsch, if you will begin the panel by basically giving us a synopsis of the history and status of the lawsuit. Where we were, how it came to be, and where we are today. I'm going to also remind folks we have a one hour time slot for this panel, so I'm gonna ask people to be very succinct in their presentation. We do have questions, not for, we may have questions that may arise from the members. I know I certainly have questions to be asked. Mr. Hirsch.

MR. DAN HIRSCH: (INAUDIBLE) Thank you very much. My name's Dan Hirsch, president of The Committee to Bridge The Gap. It's a 33-year-old organization that for the last quarter of a century has focused primarily on providing nuclear experts to communities that have nuclear projects near them.

My own background is I'm the former director of the Adlai Stevenson program on nuclear policies (INAUDIBLE).

To tell you how we got here in case we start with understanding how radioactive waste has been dealt with historically. And historically for decades any material, any waste that has radioactive contamination has been required to be disposed of in a licensed disposal site designed to handle radioactive waste.

There's been an occasional case-by-case exception, but the basic requirement has always been to go to a licensed site \_\_\_\_\_. About in the early 90s, the nuclear industry which has always chafed against this rule got the Nuclear Regulatory Commission to issue a rule called a low regulatory concern, a PRC, which deregulated a large portion of radioactive waste that would have let it go to metal recyclers or municipal landfills.

California was very opposed to this and the Integrated Waste Management Board sent back one of its board members to testify in Congress about a bill that had been introduced by Congressman George Miller to overturn that policy. Congress overturned this effort to deregulate radioactive waste. There has not been a similar effort since that time. So again, the historic situation is that if it's radioactive it goes to a licensed site. If it's not radioactive stuff, if it's municipal garbage it can go to a municipal landfill, but you don't mix the two.

Fast forwarding to California, a couple years ago by chance we discovered that about 7,000 tons of reactor debris from old reactors \_\_\_\_\_ residual radioactivity had been shipped to the Bradley Landfill. Three hundred tons of radioactive metals were sold to a metal recycler in San Pedro, and a number of other items were also released that had radioactive contamination. This caused concern by U.S. Senator Boxer and State Senator Kuehl who asked the Department of Health Services what is their policy. And in roughly January of 2001 in a letter to the senators for the first time, it was disclosed that the Department's policy was to permit radioactive waste to go to these unlicensed sites: schools, parks, farms, metal recyclers, municipal landfills, other landfills. And as part of the basis for that authority in the letter, they cited to a regulation that they had proposed, but not yet even adopted. And this was a

regulation on cleanup standards which the public commentary \_\_\_\_\_ had already expired. \_\_\_\_\_ the Waste Board, which was supposed to be in charge of these facilities didn't even know that radioactive waste was going to their facilities and didn't know that there was a rule pending which supposedly would have opened it up even further. When they asked, they were told there was no such rule, so all the disclosure occurred after the public comment period expired. There was no environmental impact report done. We filed suit and the court concluded that the State's Department of Health Services violated two laws, the California Environmental Quality Act for adopting this regulation that would have significant environmental impacts without doing an environmental impact report, and also violated the Administrative Procedures Act for not looking at alternatives. They had tried to sneak it under the radar screen by claiming that they were exempt from CEQA. The issue was called an NOE, a notice of exemption. And the court said there was legal basis for that whatsoever.

And the court then ordered them to rescind the regulation and to stop the practices until such time as they came up with a new regulation that they did pursuant to CEQA with an EIR. And the return to the writ, the state said to my astonishment and to the court's astonishment from what we can see from their subsequent actions, that the state was not gonna comply with the order. It continued to use the same regulation the court had struck down. So, the court issued a second order, second writ, saying that the refusal of the state to comply was a clear effort to evade the clear intent of the court's order, that the court wasn't going to permit that, that the regulation had to stop being used and that because the court in essence no longer had confidence in what it was being told

by the state about compliance, that the state needed to report to the court on what it was doing. In response to the second writ, the state said to the court that it was not going to provide the full information demanded by the court citing a new post-9/ 11 security policy within Department of Health Services to not disclose the name or location of any nuclear licensee in the state. You must understand that that policy, if indeed it exists, would mean you could never have an environmental impact report if you have to identify the location and the name. You could never have a hearing, the public would never know if there was an accident, they would never know if the kindergarten their kid goes to used to be a nuclear facility. So we asked the state to provide us a copy of that written policy and in response the state told us that the only written policy they have predates 9/11 by a year, would require the release of this information, but they have without a written policy, not been following the written policy and have now recently supposed they've been denying all such information about any nuclear activity anywhere in the state, which makes your job, the job of the press, the job of the public impossible, because there can be no oversight if they shield all of their information \_\_\_\_ in September 11.

And the only conclusion that we can reach is that they're using September 11th as a way of shielding themselves from embarrassment about the failure of the agency to do its job.

Where do we stand now with the lawsuit and with this issue generally? When the Governor vetoed Senator Romero's bill, he issued a moratorium, but only on decommissioned waste and only going on going to Class Three landfills. So, by implication it would appear that the state is saying that radioactive waste can continue to go to Class One landfills,

Class Two landfills, schools, parks, metal recyclers, even though the regulation that was used is the authority to do that has been struck down by the court. So, there's serious question about compliance with the courts writ.

Secondly, the refusal to release the information required by the court raises questions about compliance there and makes it very difficult also to determine independently whether they are complying generally. What rules are they following now since the old rule was struck down? We have done public records requests trying to get that information and we have received the same, being stiffed, citing 9/11 saying they can't release that information. Again this amazing contradiction that it's so safe you can sprinkle it onto your kids cereal, but so dangerous that a terrorist could use it for a weapon and we can't let you know about it.

And by the way, the Nuclear Regulatory Commission which the state keeps claiming it's consistent with, is releasing all of that information under their public policy, public information policy.

So one last point is that a reporter attempted to get some of this information about what sites were released over the last year, the information this committee tried to get a year ago and was denied. And to date, DHS has only provided 50 files out of the thousands that they say that they have and this has been a half of the year of the press trying to get those data. So it's impossible to determine what they've done in the past, what they're doing today, whether they are complying with the law. As to next steps regarding the lawsuit, we don't want to telegraph our intentions about that here at this point, but we hope that we can somehow in the next few weeks work something out with the state that they will in fact comply with the orders, release the information, let us

have assurance that they're complying with the law. And failing that, we may have to take further action. Thank you very much.

SENATOR ROMERO: Thank you. Any questions from the committee? I'm gonna go ahead and go onto the next presenter and actually, Dr. Bonta, I'd like to ask you if you would open up your presentation.

DR. DIANA BONTA: Thank you, Senator Romero, also Senator Escutia. I'd first like to make some general comments and then certainly get into the details as the committee would like to. For the record, my name is Diana Bonta. I'm the director of the California Department of Health Services. And as you know, our mission of the Department is to protect and improve the health of all Californians and protecting the public's health is a critical responsibility that my staff certainly, and I, take very seriously, I assure you. This is a serious subject. We take this seriously.

Last week Governor Gray Davis as well as the Director of California's Office of Homeland Security, George Vincent, met with Secretary Tom Ridge of the U.S. Department of Homeland Security to discuss the international war on terrorism. And following the meeting, Director Vincent determined that there was clearly a need for an assessment of California's licensing and oversight of radioactive materials. Yesterday, in a letter to the Department of Health Services, Director Vincent announced that he has requested a meeting of top state agency officials, including myself, to review the risk posed by the movement of radioactive materials and devices containing radioactive materials that are licensed for use in California. Our review will include the need for enhanced safety and security measures, stricter licensing and enforcement efforts, tighter

transportation and storage security, identification of state and national resources to assist with the enhanced protective efforts, and careful consideration of the public release of information that may potentially assist a terrorist in obtaining these materials for use as a weapon.

Director Vincent's letter supported the Department's effort to immediately implement health and safety and security measures including the modification of radioactive material licenses to require licensees to install vehicle alarms, to install double locking systems and permanent fastening structures on transport vehicles, to immediately report lost or stolen devices not only to the Department of Health Services, but also to local law enforcement, maintain an inventory by serial number and type of each and every device in the possession of the licensee, report any changes in the inventory immediately to DHS.

DHS has begun notifying its licensees \_\_\_\_\_. Director Vincent noted that the Department may need legislation authority to implement the following activities: levy administrative fines for radioactive materials violation, increase the criminal penalties for violation of radioactive materials law and regulations, increase the penalties for illegal possession and theft of radioactive devices, increase the monetary rewards for persons reporting safety or security breaches, require background checks for licensees and increase license inspections. In addition, Director Vincent has asked the Department to consider inter-governmental agreements with other states to assure that out-of-state manufacturers and distributors of radiological devices report to DHS all sales to businesses within California. Also, he asked that the Department consider making a formal request to the Federal Nuclear Regulatory Commission to remove from

the public domain its listing of lost and stolen radioactive material devices.

Madam Chair, I'd also like to share with you information on two other issues that have been raised of interest to this committee. The first is the implementation of a moratorium on the disposal in municipal landfills of decommissioned materials. Following an Executive Order by Governor Davis, DHS worked with the State Water Resources Control Board to implement a moratorium. The moratorium is in effect and will remain so until the Department has completed its activities related to the California Environmental Quality Act known as CEQA, and new regulations are adopted.

Secondly, the Department has taken two other actions regarding CEQA. The Department is entering into an inter-agency agreement with the California Environmental Protection Agency, CalEPA, to consult with DHS on how to fulfil the legal and procedural requirements for completing the CEQA process. Also, an advisory panel is being established to provide the Department with expertise on environmental policy issues related to the CEQA process. The advisory panel members will include legal counsel from CalEPA, from the Resources Agency, and environmental experts from CalTrans, as well as the Department of Toxic Substance Control.

Thank you, Madam Chair, for the opportunity to address you here this morning. I also have with me chief legal counsel Barbara Yonemura who can get into details certainly on the case that had been tried in the courts recently.

SENATOR ROMERO: Thank you and I very much appreciate the comments that you've made. All of us are concerned about Homeland Security. I know I, myself, authored a bill last year that was signed by

the Governor to make sure that there was more proper transportation of hazardous materials in California with checks. I'll look forward to reviewing that information. I do have some concerns and I want to bring us back to more so what I believe we're here about today. We will, as well, to see a video tape of a CBS news broadcast \_\_\_\_\_ and testimony from your department with respect to apparently believing that this material that is harmless, and yet I believe otherwise. But, we'll go into that discussion as well.

Let me ask you, can you tell me, going back to September 30th when the moratorium was issued, what work has been accomplished in the six months, because it's been six months since September 30<sup>th</sup>. What work has been accomplished on the required EIR?

DR. BONTA: Well, as you know, Senator, when we discussed this at previous hearings, we do not have the expertise to do CEQA in the California Department of Health Services, so we have been certainly in consultation with our sister agencies to look at what would be the steps in this very complicated process. I know that there was testimony previously about very loaded words, sneaking of the Health Department. I assure you, Senator and Senator Escutia, this Department does not act sneaky. We have a very public process. CEQA will allow for a very public process in which we are able to put forth a project and work with the experts, work with community members, so that it will be an open process to have proper deliberation of all of the facts. The moratorium is in place. That has been required. We continue to have those safeguards.

SENATOR ROMERO: Has DHS ever prepared an EIR, ever?

DR. BONTA: I'd have to ask staff on that \_\_\_\_\_

SENATOR ROMERO: Ms. Yonemura, do you have a response on that?

MS. BARBARA YONEMIJRA: No, other than, Senator, to say that DHS staff has reviewed EIRs prepared by other entities on very limited and specific \_\_\_\_\_. We have not ourselves prepared an EIR of this type. This would be a very unique process \_\_\_\_\_ a different process from the normal project that one sees \_\_\_\_\_, and that's why my counterparts at other agencies are advising us so that we can do the very best job possible and not have to revisit this issue again before the court.

SENATOR ROMERO: What about with respect to the disposal of lead? Anything, any EIR ever done by DHS?

MS. YONEMURA: I can't answer that question specifically. I'd have to go back to my staff, also, and I may refer you back to the \_\_\_\_\_

SENATOR ROMERO: I would raise a concern. I do have the press release that is on the DHS web page. This is dated March 6th which is yesterday, indicating that an announcement that you are entering into an interagency agreement with CalEPA to consult. And I'm pleased to read that. I am disappointed it's taken six months, however, for us to get there.

MS. YONEMTJRA: Senator, although we are entering into that now, we have been in discussions since last fall with members of EPA, chief counsel with other experts in the area \_\_\_\_\_. It's not a March, beginning of March issue.

SENATOR ROMERO: I have several questions to ask. Senator Escutia, I know you're in a tight time frame. Are there any specific questions?

SENATOR ESCUTIA: No, ~, please proceed.

SENATOR ROMERO: I'm gonna go ahead and go forward, then, with respect to taking a look at the moratorium where we are and a

number of questions, but I want to get \_\_\_\_ so we can try to find out what we are disposing of in California and where we are disposing of it.

In going back to the court order, the court explicitly rejected DHS's rule-making procedures, because as has been stated by Mr. Hirsch, the Department did not, as required by the Administrative Procedures Act, it did not consider feasible alternatives such as the U.S. EPA Cleanup Standards. As you, I believe, know, there is a battle at the federal level between the Nuclear Regulatory Commission, the Environmental Protection Agency, with respect to adoption of standards. DHS adopted NRC's standards and did not consider federal EPA. Can you tell the committee why?

MS. YONEMURA: The Department is, the state is an agreement state with NRC. And so we are guided primarily by our agreement state status such that we attempt to at all times be in compliance with the NRC guidelines so that we maintain our NRC agreement state status.

SENATOR ROMERO: Is it your testimony that to be an agreement state you must adopt the NRC standard? Is that your testimony?

MS. YONEMURA: My testimony is that we must be compatible with the NRC standard, not necessarily adopt it, per se.

SENATOR ROMERO: Mr. Hirsch, would you care to respond?

MR. HIRSCH: There was a letter sent by US EPA to the Association of \_\_\_\_ Radiation Protection directors throughout the country expressly reminded all states including California that they are permitted to adopt more protective standards than the minimal NRC ones. That EPA had found the NRC Standard the state adopted to have \_\_\_\_ not protective of public \_\_\_\_\_. And EPA strongly urged California and the other states to, in fact, adopt the EPA standards. So, it's simply not correct to say that the state was required to adopt the NRC standards.

The state was free to choose a more protective standard that the court so found, and there was not even the consideration of that alternative in this process.

And the larger policy matter is simply California had generally attempted to be more protective when it is able to do so and in this case, the state shows the least protective standards for cleanup.

SENATOR ROM.ERO: Do you have a copy of the letter that we, our staff did provide to you? It's dated July 7th, the year 2000.

MS. YONEMtJRA: Yes, Senator, I do have a copy of the letter and I think this illustrates the fact that that regulation process was not done in secret. There were a number of people and agencies including EPA, who were aware of the fact that we were considering regulation and provided input to those regulations.

SENATOR ROMERO: I would like to read into the record, it's on page two of the letter. We have it underlined for you, second line, "It is our understanding that agreement states would be allowed to adopt more stringent requirements. We would strongly encourage agreement states to go further than the requirements in NRC's licensed termination rule. And this draft model rule to develop decommissioning rules that require cleanups that are consistent with the protectiveness goals of CERCLA." Did you consider this when you adopted or attempted to adopt your new regulation?

DR. BONTA: Senator, I'd like the time, then, to read the whole letter, if we may, before we respond.

SENATOR ROMERO: Proceed. Would you care to read it aloud, or did you just want to read to remind yourself of it?

DR. BONTA: (INAUDIBLE)

SENATOR ROMERO: Whichever you prefer. I would just indicate to the people here that Mr. Ed Bailey who is the head of the Radiologic Health Branch to my understanding does sit on this conference.

DR. BONTA: Senator, I direct your attention, certainly, to the first paragraph when, this letter indicates, that there's a difficulty in developing new rules for controversial topics such as decommissioning. And in the body of the letter it does refer to the conflict between the U.S. Environmental Protection Agency and the NRC, so there is not an agreement of the scientists in this area. They do reference in terms of the fact that they have an opinion. They have not issued regulations in this area. NRC is the body that issues regulations in this area.

It seems that we are retrying the case right now. We went to court on this issue. In the court case, we were looking at the fact that we were attempting to be in compliance with the standards established by the federal government, and in fact, what we had on our books was a much lower standard. We wanted to increase the oversight in this area by our actions. What the court ruled on was not to accept the federal process for review of this, but to in fact, have a separate CEQA process in California. Now if our counsel wants to comment.

MS. YONEMURA: To answer your question, your first question, did you consider. By considering what NRC had reviewed in making its recommendations and by considering reading this document, yes, we did consider EPA's recommendations. However, as the director said, this issue has been decided by the court. We recognize that we need to do the regulations again, that we need to follow the CEQA process and we re taking steps to do that.

There are a couple of things that have been said about the case, though, that I would like to clarify for the record. Several allegations

have been made and I think that you would want the record to be clear as to what some of the facts are.

First of all, the regulation we're talking about is a decommissioning regulation. It does not deal with radioactive materials that are being held by current licensees on an ongoing basis. It deals with the standard for decommissioning. That's what this lawsuit was about, although the committee does have other issues, that's clearly the sole issue of this lawsuit.

Secondly, when the court ordered the Department to rescind the regulations and reissue them only after a CEQA process had been adhered to, and by considering all our alternatives, the Department determined that it was going to do that, and the Department's not changed its decision regarding that. We fully intend to comply with the law and \_\_\_\_ the court's order.

Thirdly, the court did not order the Department to release to the Committee to Bridge The Gap or to any other entities specifically other than to the court itself, information regarding existing licensees or information on decommissioning. The court ordered an amended return which was filed on October 7, requiring that the Department provide a list of the decommissionings since the previous order which was in June. The Department provided that list. The court also required the Department to provide the standard at which those decommissionings were made. And the Department provided that.

What the court also required or implied in that order, was a list of all decommissionings which would include those licensees who are no longer holding material and which by virtue of the way the industry operates, licensees that may have decommissioned some materials, but may still be operating and they still hold materials either at another

location or another type of material. Those are ongoing licensees who have materials that the Department was concerned if we were to release to the court and therefore, to the public, there might indeed be a danger of those persons who would want to gather that material or, and use it for nefarious purposes. Therefore, we offered and it is in our pleadings, we offered to the court to make those names available to the court \_\_\_\_ so that the judge can review them in chambers. But, we expressed to the judge in~ writing our concern about the wisdom of releasing them to the general public. Those are some things I wanted to make certain that you understood.

SENATOR ROMERO: Ms. Yonemura, Dr. Bonta, you're right. I'm not interested in retrying the case. The judge has already ruled and found DHS to have been in violation. What I'm interested in this point is how do we move forward. And so in moving forward, I want to hear \_\_\_\_ I believe I heard a "yes" when I asked the question, did you consider EPA standards, Ms. Yonemura, you said, "Yes, we considered." Is that your testimony?

MS. YONEMURA: That is my testimony. The consideration was implied in our review of materials received from the NRC.

SENATOR ROMERO: And as the court has ordered us to do, is we go back and try to move forward. Are you considering now alternatives to NRC standards including U.S. EPA standards as we speak and as we put this as of yesterday, at least, announcing the creation of this interagency agreement to move forward with CEQA. Are we considering all alternatives at this point?

MS. YONEMURA: As we begin, the answer is yes. As we begin the new regulatory process which will include compliance with CEQA, that

will of necessity require that we consider all our \_\_\_\_\_ that are available \_\_\_\_\_.

SENATOR ROMERO: How long do you believe it will take the department to complete the required EIR?

MS. YONEMTJRA: That, Senator, is something I cannot give you a complete answer on, because we are in the process of consulting to determine exactly how long that will take. We anticipate doing it as rapidly, but, yet as thoroughly as is possible and appropriate.

SENATOR ROMERO: Let me go to the question of what's contained in the moratorium. Where does DHS believe that decommissioned waste can be sent in the interim with the imposition of the moratorium, where is decommissioned waste being sent? Where can it be sent? As of September 30th, where can it be sent?

DR. BONTA: The facilities can certainly remove the materials to a licensed, low-level radioactive site which would be out of state. And some may be holding, if they have a large facility, some of the materials I believe on site, as long as they are kept certainly with safety conditions.

SENATOR ROMERO: And in terms of looking at the arguments to this committee, to the legislature and the court proceedings that took place with the now struck down regulation, in looking at 25 millirem, it's been argued that this is not radioactive waste. It can be treated as regular trash. Is this your belief with respect to radioactive waste below 25 millirem, that it is indeed regular trash?

DR. BONTA: Senator, we will be going through the CEQA process that will have scientists, the community members all be able to certainly be part of the process of review of this. This is an area in which the scientific community does not have consensus as to what should be the proper level for disposal in a safe fashion. So, we will go through that

process and certainly be \_\_\_\_\_ testimony. You have that under consideration as has been discussed previously with you.

SENATOR ROMERO: So, since the striking down by the judge, the position now from DHS is you are not arguing that below 25 milhirem is regular trash. You are now going to openly engage and hear testimony and discuss this issue.

DR. BONTA: Well, under state regulations that were adopted state regulations are adopted, certain \_\_\_\_\_ CEQA process that specify \_\_\_\_\_ standards, the Department will continue to comply with the court's ruling and evaluate licensees in terms of decommissioning on a case—by-case basis to ensure that reasonable efforts have been made by the licensee to eliminate residual radiation prior to granting decommissioning as is required of the law.

SENATOR ROMERO: Mr. Hirsch.

MR. HIRSCH: The previous answer by Dr. Bonta perplexes me, and I'd just like to \_\_\_\_\_. You rightly ask since the moratorium expressly only applies to municipal landfills, Class Three, what is the Department's position as to where decommissioning waste can go during this moratorium. The answer from Dr. Bonta was, "to licensed low-level waste sites \_\_\_\_\_." But since the moratorium only applies to Class Three facilities, it appears on its face that the administration's position that during this moratorium, materials can continue to go, well, can go to Class Ones, Class Twos, schools, parks, farms, metal recyclers. And just through the chair, I'd like to get clarification whether the statement made by the director means, in fact, until they come up with the new regulation, the moratorium applies everywhere, whether in fact they are permitting materials to go to these other facilities including sensitive sites during this interim period.

SENATOR ROMERO: I thank you for that. We have a series of questions trying to get to that specifically. If you could address this, because as was pointed out, we're specifically dealing with decommissioned waste. The moratorium was for Class Three landfills only. So I'm gonna ask a couple of questions here, as raised by Mr. Hirsch, Right now, what is the practice, right now, of DHS with respect to say, non-decommissioned waste, waste that is being dumped from an active, an active site? What is being, where is that going?

DR. BONTA: I asked Dr. Kevin Reilly to join us at the table, because I know that in the past while there may be the potential to go to certain class landfills, that in fact, some of them have issued their own policies that de facto do not have the material going to them, so I wanted to receive an update, certainly, from Dr. Reilly.

SENATOR ROMERO: Thank you, and let me welcome Senator Nell Soto. Thank you so much. I know you were caught in traffic. We appreciate. I know that you also have another hearing to go to with respect to local government.

SENATOR NELL SOTO: I do, thank you.

SENATOR ROMERO: Do you care to make a few comments?

SENATOR SOTO: I want to thank Senator Romero for calling this meeting, and I have a special interest because of, it's not radioactive material, but I have perchiorate in the water in my district. And a lot of it, I understand, from some of the comments that I've had at my hearings is coming from the landfill where the seeping in, the perchlorate, which is rocket fuel, has been seeping into the aquifer. And that's one of the reasons I'm in. But, it is the landfill that, not all of it, but some of it

coming from there so I thought maybe I'd hear something that would be interesting.

SENATOR ROMERO: Thank you. Dr. Reilly.

DR. KEVIN REILLY: \_\_\_\_\_, would you repeat the question for me, please.

SENATOR ROMERO: Well, the question is with respect to under the moratorium, what is DHS doing right now? Where, the moratorium specifically is limited, it's very narrow. It specifically talks about decommissioned waste being prohibited from going to municipal landfills. So the question is, right now, since September 30th up to today, can decommissioned waste go to metal recyclers?

DR. REILLY: \_\_\_\_\_, as we testified in the past, decommissioned waste, right now, cannot as you say, go to a Class Three or unclassified facility. Now, where material that is decommissioned, and again, there's that definition of waste versus decommissioned material, that poses no significant risk as a criteria \_\_\_\_ in the past. That material may be staying on site at those facilities that have been decommissioned. It may be going elsewhere and may be disposed of as the director said.

SENATOR ROMERO: Can you describe the "elsewhere"? I'm interested in the elsewhere.

DR. REILLY: It may also be going to low-level radioactive waste facilities. It may be disposed of on site by backfilling. There may be many uses of material. The facilities that we have decommissioned since the court order, June of 2002, have mostly been biotechnology facilities and facilities that have sealed sources. So, we have not had facilities that have large amounts of materials.

SENATOR ROMERO: Sir, I know, because we're on a tight time frame, can we go back to the question? Can decommissioned waste right

now under the moratorium, go to metal recyclers which could be put into kids' braces, zippers, spoons. Can it, yes, no? can it right now with the moratorium, can it go to metal recyclers?

DR. REILLY: Metals with internal contamination, no. By policy, the Department has prohibited that for some time. Metals that may have had a surface contamination, once they are decontaminated, and this decontamination typically takes it down near to zero or to zero. That material may potentially go to a recycler, yes, and very low levels or zero residual radiation.

SENATOR ROMERO: That was a long "yes" answer. What about Class Two facilities? Can decommissioned radioactive waste go to Class Two facilities right now?

DR. REILLY: \_\_\_ the Governor— SENATOR ROMERO: Yes, sir, \_\_\_ answer yes/no. According to your understanding, it's your moratorium. Yes/no, can decommissioned radioactive waste right now go to a Class Two facility?

DR. REILLY: Actually, it's not the Department of Health Services' moratorium. It is Integrated Waste Management's moratorium working with those. Maybe it's, I'm sorry, it is CalEPA's moratorium instructing the landfills on what may be accepted and what may not be accepted. The moratorium is not inclusive of One and Two, but part of CEQA's— SENATOR ROMERO: So, yes it can go to Class One and Class

Two. Okay, now we've established the decommissioned waste. Excuse me just for a moment. What about non-decommissioned waste from active sites? Can radioactive waste, below, \_\_\_ below 25 millirem, below 25 millirem. Can radioactive waste below 25 millirem right now and since September 30th go to a municipal landfill?

DR. REILLY: Radioactive waste must be disposed of at low-level radioactive waste facilities as you mentioned earlier.

SENATOR ROMERO: Can you define what you mean by low-level radioactive waste?

DR. REILLY: \_\_\_\_ active licensee that is not undergoing decommissioning typically would be disposed of as low-level radioactive waste. If they're part of a decommissioning process it must be disposed of in one of several legal ways, at a low-level radioactive waste facility there is some provisions for discharged to air. There are some provisions for discharging to the waste stream, liquid waste stream as well, because of dilutional factors. All those are very closely regulated by federal and state law.

SENATOR ROMERO: What is your millirem cutoff?

DR. REILLY: I'm sorry, my— SENATOR ROMERO: When you were talking about the low-level radioactive waste, can you give me a millirem level? Is it 100? Is it 500? Is it 25? Is it two?

DR. REILLY: A facility that is an active licensee— SENATOR ROMERO: Correct.

DR. REILLY: --the materials that they are producing would meet definitions of low-level radioactive waste if they seek to dispose of them.

SENATOR ROMERO: Can you give me a millirem level? A number?

DR. REILLY: That's not part of the definition of low-level radioactive waste \_\_\_\_

DR. BONTA: Senator, if I may?

SENATOR ROMERO: Dr. Bonta.

DR. BONTA: We are looking at these sites on a case-by-case basis. We want to put into the record that there were 87 licensees that have been decommissioned since June of 2002. Most decommissioned licensees were released at zero millirems. Zero millirems. So I understand your questioning is to try and look at a level. The CEQA process will look at what will be the highest levels. We are holding all of the licensees on decommissioning to the lowest level possible. And, Senator, the majority are at zero.

SENATOR ROMERO: The majority may be at zero according to your testimony, but it sounds like it's a case-by-case basis and I'm still a bit confused as to the criteria, the arguments that are used in making those case-by-case decisions.

DR. BONTA: We are using the court decisions, certainly.

SENATOR ROMERO: The court decision is regarding decommissioned waste. Mr. Hirsch?

MR. HIRSCH: If I could just, and I know we have a lot of things to get on to. Just to clarify for this, because you've been asking the question. I'm not sure you've been getting quite the answers. The moratorium only applies to Class Three \_\_\_\_ decommissioned waste, Until they come up with a CEQA compliant rule, decommissioned waste is permissible to go to Class Ones, Twos, schools, parks, farms, metal recyclers. And although most sites, if they're currently releasing maybe at zero as you point out, it's not the most you're worried about, it's the ones that don't fit that \_\_\_\_ that are the problem. I need to remind everybody that it's not just the ones that just been decommissioned. There are thousands of facilities that already been decommissioned, but under DHS's stated policy, can shift the remaining material to other facilities and they haven't even been warned not to send to landfills.

And your question about operating facilities? •There are provisions in DHS's regulations that give Mr. Bailey the ability to waive the requirement to let material from operating sites go to municipal landfills or elsewhere. And in addition, there are, as I understand it, provisions that he has written into a number of licenses, operating licenses, that permit them to release materials at various levels freely, municipal landfills or public places.

So, the fundamental question is if it's taken six months to even reach an inter-agency agreement so this department can get some expertise in how to fly with CEQA, it can't have an estimate of how long that process will take. We have a moratorium during the interim which only applies to decommissioned waste and Class Threes. Kind of problem that we're gonna see from Water Board's data may be getting compounded during this long interim period.

SENATOR ROMERO: I'm gonna go ahead and go forward on this. There was a Public Records Act, Dr. Bonta. There was a Public Records Act request that was submitted to your department for financial assurance information. And it was with regard to a particular regulated company. Their request was denied on security grounds, yet, as far as we have been able to discern, the Department has no written policy explaining its purported new public request standards. Can you explain first of all, how the public is endangered by knowing simply whether a licensed company has submitted the legally required financial assurance information? Please help me understand how that is a security, post-9/11 concern to simply find out whether a licensed company has submitted the legally required, financial assurance information?

MS. YONEMURA: I'd like to address that if may, Senator. SENATOR ROMERO: Please.

MS. YONEMURA: The Department complies with the California Public Records Act in all instances. That Act, however, does provide exemptions for materials, for information, that the release of which would be not in the public's interest. There is, there are specific exemptions in the, there are exemptions that require a balancing test. That balancing test is would the release of the material or the information be in less of a public interest if they are \_\_\_\_\_ than it is in the public interest to give out that material. Post-9/ 11/2001, the Department has as we indicated earlier, and with the direction of security officials, determined that releasing information regarding active licenses, active licenses, can potentially present a danger.

My understanding of the Public Record Act to which I believe you are referring, it refers to one of our licensees that has recently been in litigation, not directly related to the Department, was that that request was for all information. And I'm reading from it, actually, pertaining to the financial security including a decommissioning funding plan for that company. That was a broad request, the release of which the Department determined would not be in the public's interest, again, relying on the security interests that needs to be protected, versus the interest of an individual wanting to know.

SENATOR ROMERO: Can you tell me where, and I would like a specific citation, where in the manual it allows you to deny public information requests to withhold financial assurance information? I'm hearing what you're saying. It's all about security. I would like to have a specific citation, I would like to see it. I would like to see where it is in black and white on a written page where it is. Can you provide me that citation?

MS. YONEMURA: I'm referring to the California Government Code and specifically to the exemptions provided in Section 6255. Those exemptions would provide the balancing test \_\_\_\_\_. They require a legal interpretation and a balancing on a case-by-case basis based upon

SENATOR ROMERO: Okay.

MR. HIRSCH: The particular issue that you're raising is that the former radiation safety officer of a company had heard that the company had failed to file financial assurance documentation and that DHS had failed to do anything about it. The denial of the public records request was on the basis that under post-9/ 11 policy which apparently is unwritten and where the only written policy would require the release that you were not going to list the identity or name, the name or the location of the licensee. Clearly that individual who had worked there knew its name and knew its location, was an on-going trial with that name and location were mentioned every day. And then the Department sent in one of its employees to provide all sorts of information on behalf of the company at that trial. It created the appearance that the Department was weighing in to help the licensee try to deny the opposing party information that could show an embarrassment to the Department for failing to do its work.

One last comment, if we just heard that the new policy which is unwritten, hasn't been adopted, so even the formal policy writing mechanism says that they will no longer give out any information about any facility with an active license. There is no way, then, that the press, the Legislature, or the public can know anything about what's going on about radioactive materials in this state under such a policy. Such an unwritten policy means there's no CEQA anymore, no EIR, no Prop. 65 anymore, no hearing rights under the Health and Safety Code. And you

cannot do that even with a written policy, let alone an unwritten policy. The public has a right to know and the 'NRC posts that financial assurance information on the web daily. So, it looks as though the Department is using this excuse of 9/11 to shield scrutiny of potential misconduct on the part of the Department itself or of its licensees.

SENATOR ROMERO: Well, clearly that is my sentiment. That is my frustration. I do believe in the public's right to know and again, I'm still trying to reconcile. Remember, where I'm still coming from is I'm trying to reconcile DHS has claimed, that's why we're in lawsuit, that's why we're sitting here today. DHS has claimed this stuff is safe. Send it. We don't even have to know about it. We don't track it. It would take us four years to go back and ever look at our records to find out what we did with this stuff. It is safe. Put it in your kids' braces.

But, what's hard to reconcile with that is we can't tell you where it went. This is top security. I can't reconcile that. So, this is going to be an issue clearly we're not going to resolve today. It will be an issue, however, that will come up before the Legislature again. To me, that doesn't make sense. It's either safe, so tell me, or it's not safe as I believe. And that's why you won't tell me.

MS. YONEMURA: I don't want you to, or Senator Soto to leave here today thinking that we're trying to hide something. There are four things that I'd like to mention. First of all, we review each Public Records Act request on a case-by-case basis. When we talk about it's our view and our position since 9/11, we have obviously, as has everyone, had our awareness heightened as to the dangers of some activities that we did not consider dangerous before, And with that in mind, when someone requests information regarding radioactive materials whether it be waste or \_\_\_\_\_, we're looking at those requests on a case-by-case

basis. We are releasing information regarding licensee, former licensee, where there is no longer active materials on site.

We are looking at each one on a case-by-case basis. That's why there isn't a written policy saying this is what we're going to do. Each time we get a request, we look at the request, we respond to the request in light of the California Public Records Act. So there is no \_\_\_\_\_ and there is no, I would hope that you would understand that we fully intend to comply with CEQA and— SENATOR ROMERO: Well, we have no choice— (INAUDIBLE)

SENATOR ROMERO: So, let's go forward.

MS. YONEMURA: And we want to make sure the people don't think we're trying to \_\_\_\_\_, trying to debate that. Nothing we are doing to protect the public will prevent us from complying with CEQA. We will have to blend those two concerns.

SENATOR ROMERO: Thank you. I'm ready to proceed. I'm gonna go ahead and turn now to Mr. Giannopoulos, Mr. Giannopoulos with the State Water, State Water Board. I appreciate you being here today. you do have a mike before you. Would you please give the committee a synopsis as to the findings that were released two days ago with respect to the monitoring that the Water Resources Board did undertake.

MR. JAMES GIANNOPOULOS: Sure, thank you, Senator Romero, Senator Soto. Your introduction and the L.A. Times \_\_\_\_\_

Last April the State Water Board asked \_\_\_\_\_ boards to establish basic information on radioactivity in leachate and in groundwater landfills. Thirty-five landfills throughout the state were selected for sampling. The \_\_\_\_\_ added 14 landfills to the list and Assemblymember Papan requested the \_\_\_\_\_ Calabasas Landfill in the region for a total of

50. So, as soon as we can get that slide that was \_\_\_\_\_, try to provide some perspective.

Incidentally, the regional water boards issue 239 orders to Class Three and Class Five facilities to implement the moratorium and as Dr. Bonta mentioned the Water Board prepared a letter to all licensees informing them of the moratorium and that letter given to the Department \_\_\_\_\_ licensees.

Just for perspective up there on the slide, on the screen, there are 480 regulated landfills, 282 closed and 198 active. The reason why we're regulating closed landfills is because we continue to monitor them. The sample, the 50 out of that \_\_\_\_\_, we sampled 37 active landfills and 13 closed landfills, so that was the 10 percent you mentioned in your opening remarks. And as you can see, the 37 active landfills is greater than 10 percent of the total \_\_\_\_\_

This is a slide of the 50 landfills compared to all of the landfills. The 50 are the colored triangles, the red and the blue triangles. You can see the cluster down in the Santa Ana region, because the Santa Ana region chose to put most, if not all their landfills into this sampling program.

We asked the regional boards to sample for radioactivity: gross alpha, gross beta, tritium. Up gradient to the landfill, down gradient to the landfill and in the leachate, but remember, we only sample leachate where the landfills had \_\_\_\_\_

SENATOR ROMERO: And can you just indicate for the record how many landfills in California, what percentage, have lining?

MR. GIANNOPOULOS: I don't have that figure with me. I'm sorry. I can provide that to you. It's most of the active landfills now. Lining was required, the Water Board required composite lining in our regulations back in 1993. So, any new expansion of any landfill would

have to be composite after that date. So as landfills become filled, a new expansion has to be composite lined. So, gradually, more and more are \_\_\_\_ But, all of the composite lined is indicated by this slide on the right-hand side you see that of the 50 landfills, 26 have lined and unlined units. The unlined represents the old portions of those landfills, okay. So of the 50, 20 have lined and unlined units. That's where we collected leachate. Twenty-four were unlined only and of the 24, 13 were closed.

What we did is what at first blush, and I don't have a lot of data in front of you, but we provided the committee with a full table of results. We looked at up gradient and down gradient radioactivity. And where up gradient radioactivity exceeded down gradient radioactivity, we figured that that was basically background. What you see here are the six landfills where down gradient radioactivity was greater than background. And these landfills were all unlined. Four of them were closed. They're in the Santa Ana and San Diego region. At the bottom of the screen I wanted to provide you an example. It's the Calabasas Landfill. The reason why we didn't include that is because, as you can see, the down gradient sample is not as high as the up gradient in terms of radioactivity. Now the far right hand side you'll see the values for leachate. "A" is gross alpha, "B" is gross beta, and "U" is for uranium.

SENATOR ROMERO: Let's put this in context somewhat if we can, because this can be somewhat confusing. The maximum contaminant level for each of these, or example, for gross alpha particles represented by your "A" in the chart. For Double Butte landfill, "A" alpha, 288. That's your reading? The maximum contaminant level for gross alpha particles is what?

MR. GIANNOPOULOS: Fifteen.

SENATOR ROMERO: Fifteen. I want to establish that for the record. The maximum contaminant level is 15 and your gross alpha particle—just looking at for example, Double Butte is 28. And my understanding is these are averages overall? These statistic here?

MR. GIANNOPOULOS: In many cases, these are single samples, which is why we want to go back and do more sampling. And I want to add, I have a , two or three more slides to put some of this in perspective.

SENATOR ROMERO: But, if I can go forward just so that we can understand the number 288. I wouldn't know what that is. But, if I look at the maximum contaminant level.

MR. GIANNOPOULOS: It exceeds—

SENATOR ROMERO: It exceeds tremendous. And let's extend—

MR. GIANNOPOULOS: (INAUDIBLE)

SENATOR ROMERO: Let's establish the maximum contaminant levels for each of these. For gross beta particles represented by the—

MR. GIANNOPOULOS: \_\_\_ which exceeds the MCL which is 50.

SENATOR ROMERO: Fifty. Okay, so that's the maximum for your beta found here under the Calabasas Landfill leachate. It's 50. What about—we don't have tritium here, do we?

MR. GIANNOPOULOS: Tritium is not there.

SENATOR ROMERO: We'll wait until we get to that then. Let's see, uranium. Okay, uranium, We see uranium here. Can you tell me the maximum contaminant level for uranium.

MR. GIANNOPOULOS: The maximum contaminant level for uranium, I believe is—

SENATOR ROMERO: Twenty.

MR. GIANNOPOULOS: --twenty.

SENATOR ROMERO: Okay, so here at Calabasas we find 57, at Hemet Landfill 158, Double Butte Landfill 257 and well above the maximum contaminant level, is that correct?

MR. GIANNOPOULOS: That's correct.

SENATOR ROMERO: Alright. What's the radiant— MR. GIANNOPOULOS: Let me make one additional comment before we get to some slides of California. If you look at the right hand corner, that's the leachate number. In the summary table I've provided you, I counted 18 landfills with leachate that appeared that the radioactivity was greater than what \_\_\_\_\_. And principally that was gross beta and tritium, okay.

Okay, in all my presentations I put \_\_\_\_\_. This is the \_\_\_\_ map. This is a map of all the locations of public water supply wells and I'm calling your attention to the fact that we are looking at 28,000 public water supply wells that are highly active or have been closed since 1984. The reason why I include closed landfills is because we're the Water Board. We are interested in historical values and we have data from the data base provided by the Department of Health Services on groundwater

Okay, this slide, and these next three slides are to indicate background radioactivity. Radioactivity that's occurring naturally. And what you see here are public water supply wells that have exceeded at least once, gross alpha or I believe that's gross uranium, or uranium, at least once. What this shows you is that background alpha and uranium and uranium, the uranium breaks down to alpha emitter, you find background concentrations exceeding the MC level throughout California because this material's in the

This does not come in well on this screen. What I wanted to indicate to you, again, is the background radioactivity. The large bullet up at the top in the legend indicates public water supply wells that have exceeded gross alpha by 105 \_\_\_\_\_. That's several fold the MCL to indicate this occurs in the state as background.

The last slide, which probably is more difficult to read—these are all the exceedences for radioactivity, gross alpha, uranium, radio gross beta and tritium. I call your attention to the last two, gross beta—there are only two wells out of the 28,000 that have ever had a sampling greater than the MCL for gross beta. And we have found no wells that have exceeded the tritium MCL. From a water perspective, that's good news for us. It shows that those type

One further comment, you can see that we show over 600 wells that have exceeded MCLs for radioactivity. That does not mean that people are drinking radioactive water. Those wells are probably on standby, inactive, treated, blended, not being served to the public in order to make sure that water supply is safe. I only present these to give you an indication that we do have background radioactivity in the state, so when you look at the up gradient, down gradient values for landfill, it's taken in that context. Clearly, for the landfills that indicate leachate having greater than what would be expected normally, it would entail going back and taking a look at isotopes to see what was the source of that information. These are preliminary results. We are, and we just compiled the information. We're not the experts

SENATOR ROMERO: We just got this data two days ago. We appreciate it. We've been looking at it. I'm going to turn this part over to my chief consultant, Alan Gordon, who has some questions pertaining to the interpretation of these data.

MR. ALAN GORDON: First off, Mr. Giannopolous, I understand you can't speak for the entire Water Board, but I'm going to ask these questions—

MR. GJ.ANNOPOULOS: It would take several promotions \_\_\_\_\_

MR. GORDON: For the best of your ability to do so. I'd like to ask a couple questions about the Water Board's interpretations of what the Governor's moratorium means. The Water Board issued clean up and abatement orders pursuant to that order and I would just like to hear, if there are, is a public position of the Water Board on some of these, we would like to discern what it is.

The first question I have for you is, I'll put it very simply. What is the Water Board's interpretation of the moratorium? Where can waste be going right now and who did you notify of the universe of facilities that could receive low-level waste, who did you notify about the moratorium?

MR. GIANNOPOIJLOS: We notified all of the Class Three landfills and we notified \_\_\_\_\_. Unclassified units receive waste, They simply don't receive municipal waste. They may receive inert waste. That's why the number 235 exceeded the number of active Class Three landfills that I indicated.

MR. GORDON: It is the Committee's understanding that the orders were directed at the landfill operators who didn't create the problem and don't have the capability of detecting the radioactivity coming into their facilities as far as we know. Isn't this putting the burden on the wrong place? Isn't it the generators of the waste who need to be barred from sending it and how could that occur if we are not allowed to, if the Water Board are not allowed to find out who those generators are?

MR. GIANNOPOULOS: Let me explain my simplistic understanding of how this works, and it is simplistic. I'm just off of working on MTBE and Senator Soto, perchlorate, so I am \_\_\_\_

The Department of Toxic Substances Control regulates and defines what hazardous material is. And what's non-hazardous material goes to non-hazardous disposal facilities, Class Three and Class \_\_\_\_\_. By the same token, the Department of Health Services and the Nuclear Regulatory Commission regulates radioactivity material, radioactive waste, They define what is low-level or high level. What is not low level becomes part of the solid waste stream, and therefore, can go into the Class Three facilities, Class Two facilities, Class One facilities, \_\_\_\_\_. So we work within that regulatory framework and that framework is complicated, as perhaps Stuart Walker will explain in \_\_\_\_\_. Certainly, the more of the burden is on the generator and the Department's interaction with the generator just like it is with DTSC and generators of hazardous waste. I hope I was responsive

MR. GORDON: Yes. Did you know, did the Board notify operators of the Diablo Canyon and San Onofre nuclear plants about the moratorium?

MR. GIANNOPOULOS: I don't know that for a fact. The letters the licensees were sent by the Department of Health Services, they provided a \_\_\_\_

MR. GORDON: Ms. Yonemura, can you answer that question? Do you know if notices were sent to active nuclear power plant operators?

MS. YONEMURA: I can't answer that question. They are not in our jurisdiction, though perhaps someone else in the Department can answer that question for you.

MR. GORDON: Do you know if, waiting for Mr. Reilly or Mr. \_\_\_ either of them might be able to answer this question?

MS. YONEMURA: We don't have that answer at this time.

MR. GORDON: Okay, you don't have an answer at this point. Do you know if notices of the moratorium were sent to active Department of Energy sites such as the Santa Susanna facility or Livermore?

MS. YONEMURA: (INAUDIBLE)

UNIDENTIFIED: The notification was forwarded to the Department of Health Services licensees. There was a fair amount of information available in the community about the moratorium. I am not aware if the Department sent it directly to non-DHS licensees.

MR. GORDON: Mr. White, do you know if your facility at Bradley received a notice on this, in this area? That it was the Santa Susanna disposal that started much of this with a couple of years ago, and as I understand it, one of the facilities that Waste Management to introduce Mr. Chuck White from Waste Management, operates. Unknowingly they received waste that was contaminated. And did you receive one of these moratorium notices?

MR. WHITE: We received a cleanup and abatement order from the Regional Water Quality Control Board asking us to implement the moratorium. I have no knowledge as to whether or not we received a letter through DHS that was from Celeste Kantu that was to licensees. I would suspect we did not, because Bradley Landfill is not a licensed facility under DHS regulation.

MR. GORDON: That then leads us to the questions, Mr. Giannopoulos, does the Water Board have sufficient monitoring capabilities to determine whether radioactive materials are being received at regulated facilities, facilities that are sitting above groundwater?

MR. GIANNOPOULOS: The monitoring facilities would have to be owned and operated by the landfill operators. So, the Water Board would not have monitoring facilities. And as I think you probably understand, Mr. Gordon, it's very difficult to detect some of this material because it's shielding types of particles that we would \_\_\_\_ particles are easily blocked by, in some cases, a piece of paper, because we simply don't have the \_\_\_\_ to go

MR. GORDON: Mr. White, does your facility generally test for gross alpha, gross beta, tritium coming into your facilities as each load comes in?

MR. WHITE: I don't believe we have any facilities that do that kind of \_\_\_\_\_. We do have radiation detecting monitors at some of our landfills, but by no means all

MR. GORDON: So you would have no way of knowing, unless Department of Health Services informed you that low-level radioactive waste was coming into your facility that it was coming in there.

MR. WHITE: That's correct.

MR. GORDON: Mr. Giannopoulos, the Water Board data on radioactivity in water at selected landfills shows a number of sites with high tritium levels.

MR. GIANNOPOULOS: That's correct.

MR. GORDON: It is my understanding that these levels in some of these sites are hundreds of times higher than what might see in background. From the data we've reviewed naturally occurring tritium might be one picocurie per liter, if you through in background from nuclear fallout, you're talking about approximately 20— MR. GLANNOPOULOS: Thousand.

MR. GORDON: Twenty thousand. No, no, 20, 20 picocuries per liter might be naturally occurring tritium.

MR. GIANNOPOULOS: Yes, and the values that we are seeing the MCL which is 20,000 \_\_\_\_.  
So the source certainly is \_\_\_\_

MR. GORDON: Do you have any, what is your confidence level in the reliability of that data at this point in time?

MR. GIANNOPOULOS: The data is preliminary. And we still have to ask a lot of people some questions. In many cases the data represented one sample. The, my understanding is that commercial laboratories are pretty good at identifying gross alpha and radium. It's much more difficult when it comes to gross beta. And tritium, I certainly have a confidence that tritium is in landfills and the beta is representative of tritium in landfills. I think that most of us know that a single self-illuminating tritium \_\_\_\_\_, it's fresh containing up to 24 curies, which is many trillions of picocuries. Of course, after 12 years, half life of tritium is 12 years, so half that amount, that is that side was ground up and disbursed in the landfill easily exceeding the numbers that you see, you see in landfills. That's from one source.

MR. GORDON: Is it legal to send these signs to— MR. GIANNOPOULOS: \_\_\_\_ is that these signs must be recycled, sent back to the facilities. But, this is one option and you see these signs

MR. GORDON: Mr. \_\_\_\_\_, you put this question to Director Bonta. In the briefing that the committee received this week, we were told that DHS found the data extremely preliminary and that they were not confident in the numbers that were received. Would you like to me to ask the question to you or to the gentleman who presented that data to the committee with regard to the reliability of the sampling data and

what it might, what it might mean with regard to the levels that were found?

DR. BONTA: I'm not understanding your question. Are you asking us to comment on whether or not the Water Board's data is valid?

MR. GORDON: Yes.

DR. BONTA: Sir, how would I do that? I received just yesterday copies of this information. As I understand it, the report is preliminary and I have certainly not had time to digest it, to look at it in depth. So, if you could, I \_\_\_\_\_ understand your expectations \_\_\_\_\_--

MR. GORDON: Okay, well, I'll be fairly specific then. What we were told was that the preliminary data that we were given might not be reliable, that more monitoring must be done, and we accept that, That is understood, it's preliminary data. I also understand in looking at releases from the laboratories that did the work, that the sampling detection level is 400 picocuries per liter. Yet, some of these data which we received as, as averages are in the 53,000 to 60,000 range with a sampling error of plus or minus 10 percent. So I'm trying to find out and we've seen the public documents sent out explaining this stuff and the press releases and all of it. Exactly how when we have a detection level of 400 and a certainty level within 10 percent in averages of 53 or 63,000, what the doubt is as to the reliability of the data and the accuracy of what was found.

DR. BONTA: Sir, I can't comment on each of the variables that are presented here. But, certainly, you know, we \_\_\_\_\_ uranium, for instance. It's a naturally occurring in ground water and is associated with geological conditions when granite is \_\_\_\_\_. I would need to talk with my colleagues, certainly the Water Board, have our scientists talk with them, to be able to know which parts of the report may have certain

assumptions in which are not clear at this point. You may have a value in a particular area, but that may be a naturally-occurring value. It may exceed it for other reasons. We certainly want to review with our staff that are the experts on drinking water, which is our specialty, to be able to look at this data. We did not see anything in terms of there are no public drinking water sources that exceed the tritium \_\_\_ standard, for instance. And so those are some of the things that we're looking at. But, I cannot comment on each of the variables, certainly, in this study, certainly, in one day of quickly looking at the data on charts that I can hardly read, \_\_\_\_\_ narrative on this, nor do I have the full report on this to be able to comment in depth.

MR. GORDON: One last question and I think we probably need to move on from this. The data we received was primarily collected as I understand it, you tested up gradient, you tested down gradient and you tested leachate in the lined facilities. Is that correct?

MR. GIANNOPOULOS: That's correct.

MR. GORDON: Now in 22 of the 50 tested, the leachate came out— MR. GIANNOPOULOS: Eighteen. That was the Los Angeles Times. I counted 18.

MR. GORDON: You counted 18. Okay, I'll go with your number. MR. GIANNOPOULOS: They don't hire engineers to \_\_\_

(LAUGHTER)

MR. GORDON: Let's go at 18. Eighteen of the 50, the leachate had levels of either gross alpha, gross beta, or uranium— MR. GIANNOPOULOS: Typically gross beta and tritium exceeding what would be accepted naturally.

MR. GORDON: In a landfill such as Bradley, okay, now the positive sign, and it is a frankly \_\_\_\_\_, none of it was found in the groundwater.

MR. GIANNOPOTJLOS: That is correct.

MR. GORDON: It made it into the liners and that is exactly what they are supposed to do is collect problems. A facility such as Bradley which has both a lined and an unlined portion, if the lined, if the leachate drained from the lined portion of the landfill is showing levels significantly higher than what one would want to see that would be healthful in our water supply, recognizing that it has not gotten there yet, would it be a reasonable assumption that in the unlined portion of the landfill, one would expect to see the same liquids leaching down through the substrata and on its way to the ground water which we have not for yet.

MR. GIANNOPOULOS: That was a long question. First of all, as you indicated that there was some good news, that at Bradley we did not find exceedences of gross beta ground water at those unlined landfills., unlined portions have been there for quite a bit of time. That's good. And we all recognize that leachate is not \_\_\_\_\_. Leachate is highly contaminated and exceeds MCLs for a whole bunch of things, many, many times over.

The other caution is that leachate is a very small volume of water, so in the event that it hit ground water, first of all, there are sentinel wells out there that we require for monitoring and if in fact we did find it, Regional Water Quality Control Boards, it would precipitate corrective action, okay. So those are all things that we do.

Now, what was the punchline to your question, Mr. Gordon, with all of those qualifications? Would it be reasonable to expect that that

material in an unlined portion could reach groundwater eventually? It is reasonable to expect that. I also hope it is reasonable to expect that if in the event that it did, that we would detect it and take corrective action to assure that down gradient and ground water is not affected. I would have hoped that all of these landfills some time ago would have been lined, but we finally required deposit liners in 1993.

SENATOR ROMERO: And let me ask the not-so-good news. It's only been 10 years, correct, since we've had lining? The question I would ask is is lining foolproof? And how long is a liner in a landfill designed to last?

MR. GIANNOPOULOS: Liners are not foolproof. They will certainly not last for the half life of uranium which is in the billions of years.

SENATOR ROMERO: We're specifically, it's estimated landfill lining will last approximately three decades?

MR. GIANNOPOULOS: Mr. White, my former Water Board colleague is probably more adept in responding to that question.

SENATOR ROMERO: Could you let us know as far as the life, the lifetime of a liner?

MR. WHITE: Well, liners have been installed, you know, for the last 20 years last ten. I think the engineering data indicates that it's, they last in virtual perpetuity, but there is a lifetime and the question is exactly how long. Simulations indicate on the order of 600 or 800 years, at least. But, whether or not they will necessarily last that long under real life conditions, I don't think it's necessarily the case.

One of the things you have to remember, though, is that, you know, landfill liners operate \_\_\_\_\_ well during the life of the landfill, but once a landfill closes, they are capped and it's then the cap which has to be maintained as long as that land fill poses a threat to water quality.

And that cap, if well-maintained, would limit any driving force to push material down into ground water if that line, landfill is properly capped and maintained. And so in the sum total, we believe, of a well-designed, well-operated, well-lined, well-capped landfill should pose a minimum threat to water quality and public health.

SENATOR ROMERO: Mr. Giannopoulos, does the Water Board review seismology data when monitoring municipal landfills? I mean, California's earthquake country.

MR. GIANNOPOULOS: Yes, yes, yes it does. And of course, we have many landfills that \_\_\_\_

SENATOR ROMERO: Mr. Hirsch.

MR. HIRSCH: \_\_\_\_\_. I know that we have to run onto another panel. I noticed \_\_\_\_\_. Just a quick comment about the data that Mr. Giannopoulos presented, some of which I hadn't seen before. I think, \_\_\_\_\_ because it gave me a picture I hadn't known until today, which is only from your data only about two percent of public water wells in the state over an eight-year period are showing any exceedence whatsoever, and that's generally for uranium or gross alpha.

MR. GIANNOPOULOS: Since that data, we really queried the data base since 1984.

MR. HIRSCH: Oh, so even longer period of time.

MR. GIANNOPOULOS: That's correct, for the 28,000.

MR. HIRSCH: So, if we're seeing in a single time testing municipal landfills and we're seeing something over half of them coming back positive, most of those— MR. GIANNOPOULOS:

(INAUDIBLE)

MR. HIRSCH: But, most of those would be unlikely to be due from background, because background's only showing up in two percent of

our regular wells, but showing up in nearly half of the leachate where the groundwater adds \_\_\_\_ landfills. And your data about beta materials and tritium also indicate that very strongly for the \_\_\_\_ beta and tritium.

SENATOR ROMERO: Could you respond? I mean, you're nodding, but we can't get you on the record.

MR. GIANNOPoulos: I'm agreeing with Mr. Hirsch, he's just commenting on the data.

SENATOR ROMERO: Then you're agreeing with the comments that he made just right now.

MR. GIANNOPoulos: Yes.

SENATOR ROMERO: The Water Board's going to continue given this data, is going to expand its monitoring, expand its testing. What happens next?

MR. GIANNOPoulos: What happens next is we take more careful look at the data because we have compiled the data provided to you almost at the same time we are looking at the data. We need to digest the data. We need to talk to third parties with expertise, expertise that we don't have. We clearly, for sites where radioactivity exceeded background levels, we need to look at that specific radioactivity. We can look at those isotopes at the \_\_\_\_ of cubic gross beta we can try to identify what isotopes were responsible and that will tell us something about the source of that data. And then as the data, as the data indicates to sample we'll probably be \_\_\_\_

SENATOR ROMERO: Mr. White, is the Bradley Landfill lined?

MR. WHITE: The majority of it, \_\_\_\_\_ the current portion that is being operated is lined. There is a eastern portion of the landfill \_\_\_\_\_ unlined \_\_\_\_\_

SENATOR ROMERO: Any comments?

MR. WHITE: Yeah, I have a brief statement to make, if I may, Madam Chair. My name's Charles White. I'm the director of Regulatory Affairs for Waste Management. I'm also a \_\_\_\_\_ California.

I'd like to give you a brief, five-minute overview of our \_\_\_\_\_ efforts to implement the Governor's moratorium on decommissioned radioactive waste. In California, Waste Management operates about 16 municipal solid waste landfills and one unclassified unit that are all subject to the moratorium. None of our landfills are authorized to accept radioactive waste and we are very supportive of the chair's efforts to prevent radioactive waste shipments to any solid waste facility and certainly our own.

Really, simply stated, it's regulated as a radioactive waste by the federal government, by the State of California. We just simply don't want it in our landfills. However, we are concerned that there is not any widely accepted or clearly understood definition of what is or what is not radioactive waste. As an example for many years the federal government/State of California have regulated the decommissioning of sites that have licenses for handling radioactive materials after decommissioning waste materials \_\_\_\_\_ on site for disposal or even recycle. We believe that some of our facilities may have received these decommissioned wastes and recycled materials as a solid waste. And this has been typical in construction and demolition debris and waste.

However, we've had no knowledge or awareness that they may also contain low levels of radioactivity or even that they came from a decommissioned site. Today, we still have no way of determining whether one of our commercial or industrial waste customers is a decommissioned site, and in the past, California's regulatory system has

allowed waste from these facilities to be managed as if it were a normal solid waste, even though it may contain low levels of radioactivity.

This did begin to change when the Governor issued the Executive Order to establish the moratorium on Class Three and unclassified units. That order led to the issuance of cleanup and abatement orders from the California Regional Water Quality Control Boards to our landfills. Most of our landfills received either \_\_\_\_ abatement orders during October of 2002, and these orders required landfill operators to provide notice to waste generators and then place warning signs at each of our waste management units.

The easy part of compliance with this order has been to establish signs at all of our Class Three units, and I did provide you some handouts, some examples of the kind of signs we have established in all of our Class Three and unclassified unit and I can just show the audience and yourselves. We've instructed all of our facilities and all of \_\_\_\_ facilities should have these signs up indicating that this is, for example, a Class Three disposal facility. It cannot accept for disposal any radioactive materials, radioactive waste, or decommissioned materials containing radioactivity in excess of local background levels. This just an example, we instructed our facilities to make them large enough so they're readily visible at the entrance or at the scale house of our facilities.

The more difficult part has been the provision of notice to waste generators regarding the moratorium. We quickly discovered through discussions with CalEPA and the state Water Resources Control Board and the Department of Health Services that the state either did not have or would not provide us with a list of waste generators that once had or now have radioactive material licenses and it could be sources of

decommissioned materials in the future. Apparently as we've discussed previously in this forum, due to security concerns, the names of such facilities cannot be released to the general public including landfill operators. Thus, there is currently not any way for us to identify the specific decommissioned material waste generators as would appear to be required by the abatement orders and the Governor's moratorium.

However, in spite of this, in spite of our inability to secure the names of potential decommissioned waste generators, Waste Management has still proceeded with a program to provide notice to all of our commercial and industrial customers about the moratorium regardless of whether they handle radioactive materials, because we have no way of knowing if they do or not.

Starting in December of last year, we included this illustrated notice which you also have a handout. This is blown up. Basically it had been inserted into all of our billing statements. And I won't read the whole thing, but basically it says, "Notice. Decommissioned radioactive material disposal moratorium. The disposal of decommissioned radioactive materials is prohibited at Class Three and unclassified landfills in California. If you produce or handle waste or materials with radioactivity above background levels from a decommissioned site, you are responsible for assuring that these wastes or materials are not disposed in any Class Three or unclassified units."

Starting in December, we mailed these out to all of our commercial and industrial customers. As of today's date, we have mailed over 190,000 notices to all of our commercial and industrial customers in California and we intend to repeat that every six months during the course of the moratorium.

Surely there must be a way to balance security needs and public health protection. But, we believe it is time for the State of California to begin working proactively with landfill operators so we can identify these facilities and operations licensed to handle radioactive materials so that we can develop focused programs and procedures with these licensees to fully protect us and our host communities from radioactive waste shipments.

I would like to reemphasize in closing that Waste Management is not in the radioactive waste disposal business, and we do not wish to receive any regulated radioactive waste in any of our disposal facilities. The State of California should adopt clear and accept a bright line criteria between what is an what is not a radioactive waste. In addition, we hope that the regulation of what is a radioactive waste focuses greater attention on the generators of radioactive waste and those that have licenses for the use of radioactive materials. Once a radioactive material is improperly shipped off site for disposal or recycling, it is very difficult for a service provider, such as Waste Management, to identify and properly reroute the material to a licensed radioactive waste disposal site. Radioactive material license holders must be held accountable for the proper management of any radioactive materials or waste they produce and send off site.

SENATOR ROMERO: I thank you very much, Mr. White. I certainly appreciate the inherent conflict which you must be feeling. I can imagine what other landfill operators are feeling, as well. I do appreciate your own voluntary, in a sense, and notice. I would remind you, however, that you may not have a choice. It's simply the moratorium is only for a short period of time and it's only for

decommissioned waste. Ultimately, you may not know what is coming into your landfill.

MR. WHITE: That's exactly the problem. If there is a regulation or a clear, bright line, the focus has to be on the licensees, the folks that first generate and handle this. Like I said, once it comes off site, we have very limited capabilities to keep it up. We don't want it. But, it has to be a license holder that are kept from sending it to our facilities. SENATOR ROMERO: And I certainly would share the sentiment that we certainly are concerned about security. There is a way that we can balance security. Although, at least from my perspective, I don't know how we do that if we can't get any public information. So that is something that hopefully we can resolve.

I would also, perhaps, state that I don't live, I mean I live on the East Los Angeles. I'm certainly familiar with the Bradley Landfill having heard from many community constituents. I know that there's concern about the disposal of radioactive waste into the landfill and I certainly, when I— MR. WHITE: We are concerned, as well. I can assure you— SENATOR ROMERO: And I know that when I've spoken with constituents lye indicated, look, it is not Waste Management that we should be directing these questions to. It has to be the State of California to whom we ask these questions about where we dispose of this material that I believe is not wanted by constituents adjacent to Bradley or surrounding landfills.

MR. WHITE: Nor by the operators.

SENATOR ROMERO: Okay, thank you very much. I want to thank all panelists. I know we're running a bit behind schedule. Some

of this stuff is very technical and we're gonna try to go through it a little bit, perhaps more finely.

Let me thank this first panel for being here and call up the second panel. Dr. Bonta, I will ask you to remain. Let me call forward Stuart Walker who is with the US EPA's Superfund Program, Bill Corcoran for the Sierra Club here in California, Dr. Kevin Reilly I understand that you will be testifying with Dr. Bonta, and Mr. Hirsch I would ask you to remain as well.

Let me go ahead and start with Mr. Walker. And let me just give a little bit of background as to Mr. Walker. He's been gracious enough to join us from Washington. The weathers much nicer. We appreciate it. We hope you have some time to at least enjoy our California sun. Mr. Walker has been employed by the US EPA since 1990 in either the Office of Emergency and Remedial Response which is the Superfund Program, or the Office of Radiation and Indoor Air, working on issues regarding the cleanup of contaminated sites. His primary areas of responsibility include serving as the Superfund Program's national lead on issues regarding radioactively-contaminated CERCLA sites. In this latter role, you develop national policy for characterization, cleanup and management of radioactive contamination at CERCLA sites.

Mr. Corcoran is here with us, as well, too, from the Sierra Club. Dr. Bonta, as well. Let me go ahead and ask Mr. Walker if you would care to open up, and especially we're trying to understand cleanup standards with respect to US EPA. We're trying to understand conflicts between US EPA and the NRC. What information can you give us as this new required CEQA that DHS will be undertaking as we go forward. Please help us understand your standards and what we should understand about them as we make our decisions in California.

MR. STUART WALKER: Okay, thank you, Senator. I was going to, I have kind of a standard briefing that kind of goes over the US EPA Superfund radiation policies. I will skip over about half of that, because a lot of that gets into how we use other standards and I know we're pressed for time here, so I'll just try to do that in the interest of time, focus more on our general policy, \_\_\_\_ risk assessment policies.

The EPA addresses site cleanup under several laws and programs. The one that I always talk about is the Superfund Program. The Superfund is under the statute known as CERCLA which is the Comprehensive Environmental Response Compensation and Liability Act. Our implementing regulations are known as the National Contingency Plan, or NCP, so you always hear of the NCP acronym.

Today I'm gonna do an overview of CERCLA remedy selection requirements, focus a little bit on radio nuclides, and provide a sort of a truncated overview of EPA CERCLA guidance and some of the other tools that we use that specifically address radio nuclides.

One thing to remember when we're talking about Superfund at EPA is that radio nuclides are basically addressed in the same framework that we address other hazardous substances, in particular carcinogens. There is not, either the general framework applies \_\_\_\_\_. EPA, under EPA CERCLA cleanups, it must protect human health and the environment, also comply with other federal and state laws. This is an acronym known as ARARs, Applicable, Relevant, Appropriate Requirements.

Applicable requirements, I'm just going to give you a short description, are requirements that you'd have to meet whether it was a Superfund site or not. Relevant and appropriate requirements are requirements that are standards that are sufficiently similar to the situation you're addressing at the site you have to meet them. Say, like

for one of the main ones is the maximum contaminant levels, MCLs for drinking water. If the groundwater or surface water's a current or potential source of drinking water, we still meet MCL concentrations, say, in the aquifer or in the surface water body itself. It's not applicable, but it's relevant and appropriate.

Some of the other criteria we look at—the first two are the most important criteria were the protectiveness and the ARARs, but we also look at things like \_\_\_\_ and permanence of the potential remedies. We look at various alternatives and measure them against these criteria. Reduction of waste, toxicity, mobility, and volume is our preference for treatment. Short term effectiveness under any adverse impacts with the type of remedial action that we're conducting that might conduct. Implementability--how possible is it to form the remediation and cost.

We also look at information in the community or state about how they modify the remedial action. That's in our nine remedy selection criteria, but in reality, the state and local government are involved with us throughout the whole process from beginning to end.

Just one thing to remember, all radio nuclides are carcinogens. EPA considers them Class A carcinogens which is our highest level. Uranium, we also look at the toxicity effects. It's also, that's a kidney toxin. And once again, I'd like to bring up that radio nuclides are addressed in the same framework as chemical contamination, and we, what we look at things about with radiation that we don't sometimes that we don't look at with chemicals. There's gamma radiation so we look at that. We don't look at dermal because the gamma radiation tends to drive the rest of the post-dermal contamination. That's thermal heating you get on your skin. And we also have standardized methodologies for looking at produce and \_\_\_\_ .

Under CERCLA, CERCLA cleanups—ARARs often determine the cleanup levels.

Where ARARs are not available or protective, EPA sets site specific cleanup levels for carcinogens representing an increase cancer case of one in a million to one in 10,000. But, the chief point here is that we use the ten to minus six, the one in a million as our starting point, so we're always trying to aim for the more protective end of the risk range.

For non-carcinogens, we use a standard that will not result in adverse impacts to human health, and that's, we use something called a hazard index. HI below one is considered safe. Above one is where we have a concern. And we also look at and address ecologic concerns, as well.

I'd like to say that when we do our cleanups, though, our cleanup levels are basically not based on the NRC method of using 25 millirem or 100 millirem dose limits. If you're at a site and you find the NRC standard is still an ARAR, you may have to still meet 25 millirem, but you should still start and ten to minus six as your point of departure. So that's where you should start your analysis. And you should make sure that you still end within the ten to minus four, ten to minus six risk range.

There are a variety of guidance documents such as BOE orders, NRC guides, some of the international or national guidance documents that pertain to radiation cleanup levels that are in terms of dose and our policy is to not use any of those.

I'm gonna skip over several of the next slides and they're more to specific ARARs than we need to get into that right now. But, this is in the package if you need to refer to it later. Our risk-based cleanup levels when they're not based on an ARAR, radiation cleanup levels for

CERCLA

sites should be expressed in terms of risk so one times to minus six, not something millirems, one millirem, five millirem. We use what are known as slope factors. These are all on the internet. We use models to estimate cancer risk, radioactive contaminants. One thing I'd like to point out, our slope factors that we're using use the latest science. The ICR \_\_\_\_ puts out health effects information and we're the only ones using the latest ones in the U.S. Internationally most people are using ICR P72. We're using them at Superfund sites were making risk management decisions because they're folded into \_\_\_\_\_. I think just about all the other federal agencies and just about all the state programs are still using ICR P26 and 30. And they receive criticism on this on the National Academies of Science.

One of our key documents that is a good document if you want to learn a little bit more about how we do risk assessment at CERCLA sites for radio nuclides is our risk assessment of Qs and As. This is where we first came out with some of our guides that we don't use doses assessment only for ARAR compliance, not for recommendation.

Another one of our key documents, we're trying to determine this base cleanup levels as our \_\_\_\_ screening guides for rating nuclides. This mirrors the document that we did for chemicals four years earlier. Keeping this as, as it has survey procedures for how we actually cleaned up the site and \_\_\_\_ sample samples.

As far as risk base, we're actually doing a risk calculation, you don't clean up to say, a risk or a dose level. You cleanup to a concentration that correlates back to the risk or dose level. We actually have our methodology for determining risk levels on the internet, so basically anyone can go on there and they can run this off the internet calculator and correlates, gives concentrations that correlate out to one

times ten to the minus six risk levels, and under a variety of different land uses. This, yeah, we also have another calculator if we have to determine chemical toxicity of uranium.

We're almost to the end now. There is a little bit of confusion recently. We signed a memorandum of understanding with the Nuclear Regulatory Commission. We've had a long-standing disagreement with them over what's protective as far as cleanup levels. This is not actually just for cleanup levels. The agency had arguments with NRC on everything from \_\_\_ to clean air standards to drinking water standards.

We determined a framework for how we're gonna talk when they're decommissioning a site when their \_\_\_\_, when their levels might pose a problem for us at Superfund. But, some people read this as if we're adopting NRC standards. We sent out guides to our regions that went out the same day the \_\_\_\_ that basically said we're not adopting NRC standards. You can clean up CERCLA sites and still clean up the same way you were doing before, you still start looking at ten to minus six. We're still not using NRC standards. So that's, I just wanted to stress that point.

And just all of our documents that I've, that are in the package here that I've described are on the internet. They're all PDF forms \_\_\_\_ There's also the second web page under there as a \_\_\_\_ maybe a hundred or so that provide overall Superfund, how we select cleanup levels at our site policies. And that's it for my presentation.

SENATOR ROMERO: And can you, again, to reinforce for the committee why you go with risk levels and not millirem.

MR. WALKER: Well— SENATOR ROMERO: Is this, it's more protective? Is that what U.S. EPA is arguing?

MR. WALKER: Well, the reason we don't use 25 millirem is we found that that's not protective. We have a, guides came out in 1997 where our policy which we stated a number of times since then is we don't think this is sufficiently protected to use at our sites. The reason we use risk is just because it's more similar to how we \_\_\_\_ chemical carcinogens and a number of sites we also have chemicals and rads mixed together. And it's kind of hard to describe to the community, you know, why not, why you're using a different framework for how you're cleaning up the rad with the chemical \_\_\_\_\_ still being exposed to the same sites. It's all in the same dirt.

SENATOR ROMERO: Okay. Thank you. Let me just ask one other question to, is there a scientific reason why we should treat radioactivity toxins differently from hazardous, other types of hazardous waste materials?

MR. WALKER: Not that I'm aware of.

SENATOR ROMERO: Thank you. Mr. Corcoran from Sierra Club, would you care to respond to taking a look at cleanup standards per U.S. EPA and perhaps comment on how you understand State of California's cleanup standards.

MR. BILL CORCORAN: Yes, for the record, my name's Bill Corcoran. I'm regional representative for National Sierra Club. I'm here on behalf of my coworkers at Sierra Club California. Sierra Club supports keeping cancer risks at one to 10 million, or one in one million, rather than using the dose measurement. At the very least, the state should use for radioactive cleanup the same risk levels that it uses for chemical cleanups and that the U.S. EPA uses for radioactive cleanups. That is a goal of one in one million with allowable failback of one in 100,000. In some cases, one in 10,000 under very limited

circumstances. It's the perception of the Sierra Club at radiation should not be treated as privileged pollutant as it currently is in California. Radiation should not be allowed to kill more people than chemical contamination does. The question of an acceptable level of risk is not a scientific issue, but a policy matter best resolved by our elected representatives. We're very appreciative of the leadership of the chairwoman of this committee and the committee itself. When radioactive materials were moved from a site, it should go to the facilities explicitly designed and licensed for it, not to metal recyclers where it can be melted down into consumer products, nor to landfills meant to take municipal solid waste or hazardous waste or to schools, farms or parks.

I have to leave soon. I have to go to San Luis Obispo, so I want to go beyond that and just say sitting and listening to the testimony from Department of Health Services, I'm frankly astonished that the State would be comfortable with the Department and it's Radiologic Health Branch learning how to apply CEQA on an issue like radioactive waste. I think that is very questionable judgement by the Department by adopting its lax cleanup standard without a CEQA review, by allowing radioactive waste to go to recyclers, landfills, public places that the Department is showing itself to be the guardian of the nuclear industry, not of the public health. I strongly urge, and the Sierra Club strongly urges that the responsibility for radioactive waste decontamination should be transferred to the Department of Toxic Substances Control which already handles chemical contamination. That's the end of my comments.

SENATOR ROMERO: Well, thank you. Mr. Walker, let me ask you again. Can you tell the committee what is meant by the term "risk

assessment”? How do you go about measuring this? Can you help us better understand the term itself and how you measure this.

MR. WALKER: Well, the EPA and all the other agencies basically have models that, in equations that are using a, that correlate a concentration in the soil to a given risk per dose level based on assumptions and input parameters that are based on what type of land that you’re using. We all use, have general defaults on hydrogeological characteristics of a site. Sometimes you can gather more information and change those defaults to more site specific information.

SENATOR ROMERO: In terms of looking at the results of your agency’s risk management, it’s ten to the minus six?

MR. WALKER: Ten to the minus six is the starting point, ten to the minus fours are—

SENATOR ROMERO: Is there any controversy over that? Is it generally accepted? I mean, what’s in terms of looking at that, a ten to the minus six standard.

MR. WALKER: Well, it’s sometimes controversial with some of the folks in the radiation community, but as far as the environmental community, I think just about every state uses either ten to minus four, ten to minus six or they use a point that’s more stringent, say just ten to the minus six to just ten to minus five for chemicals. And some of the states are trying to also look at having a little bit more consistent risk harmonization view of how they view chemicals and radio nuclides and are trying to, and have been moving more towards these same types of cleanups that we do.

But, as far as the risk \_\_\_\_\_, I don’t think that’s been controversial. It’s been controversial only with some in the rad community, because I— that and also the, in rad community, there tends not to be the same level

protection for groundwater. One of the problems you always have with the NRC is they don't have a separate groundwater standard that includes MCLs. We've always had a concern with that. Also with the state organizations, CRCPD that we might have to standards cleanup sites not to using the risk range or meeting the risk range and not meeting MCLs and groundwater could lead to having more Superfund sites. Just, that's always been a concern that we've expressed.

SENATOR ROMERO: Thank you. Can you tell me, if we talk about a millrem of 25, what does that come out to? Ten to the minus, what?

MR. WALKER: On average, our estimates are approximately five times to the minus four. But, five and 10,000 cancer risks. It's about, which is about five times higher than what we normally would go back to.

SENATOR ROMERO: Dr. Bonta, can you share with the committee again, I know we covered some of this before, but in terms of looking at cleanup, scientists are never going to agree on one particular issue, and I think ultimately it comes down to—it's a public policy question, I believe, ultimately. As legislators we enact laws, we make choices, we have values that guide us. We can go very protective or we can go less protective. I recognize that these are science is science, and then we make public policy choices based on the science. And even the scientists may not concur.

In terms of looking and listening to Dr., I'm assigning you Dr. Walker, I'm not sure if that is accurate, Mr. Walker. In terms of listening to Dr. Walker's, Mr. Walker's—I want to make you a doctor--Mr. Walker's testimony, can you address the question in terms of looking at and helping us understand the State of California's choice with respect to

risk assessment versus dose level. What has California decided and based on what?

DR. BONTA: Madam Chair, I think all of these issues we have certainly gone over on a brief portion of them, and they again, back into the issue that we will be going for the CEQA process in order to determine what would be the best policy call for California. In doing that, you know, I would certainly invite Mr. Walker and Mr. Corcoran to come to those hearings to participate with us to be able to formulate what might be the best policy, the most protective policy for California.

You know, what I've heard here from Mr. Walker this morning, is that you have two federal agencies that do not agree, yet we are regulated in California looking to the NRC. Now, if we wish through public policy, we could determine a standard that would be beyond that and I think that is a good opportunity through this public process and through CEQA for us to continue to have dialogue about this and that we have a thorough expectation to do that.

SENATOR ROMERO: Do you agree that California has a choice to adopt a stronger more protective cleanup standard?

DR. BONTA: We are certainly guided by our federal agencies in terms of what we do here in California. As I indicated, the CEQA process will allow us to look at the differences or the similarities when we look at millirems or when we look at risk factors and certainly have all the scientists we brought together look to the wisdom of the Legislature, the Governor, all the bodies—  
SENATOR ROMERO: The wisdom of the Legislature already spoke and it was rejected, so I'm not so confident about the acceptance there. But, nonetheless, in looking at this certainly we're going to look at CEQA. Like I said, it's the law and we have an opportunity now as well as an

order to follow the law. So of course, we're going to look forward that and hopefully we can get it started soon.

The question that I would like to pose to you is that we're looking at where we are right now and how we're going to move forward. One of the reasons why we got here is because California Department of Health Services made a choice and we've got different federal agencies. Yes, we have the NRC, we have as well, too, the U.S. EPA which has, nobody's arguing, a more protective standard. It's based on risk assessment. California made a choice when it attempted to put forth regulations that the judge threw out because the process wasn't followed. We now have a choice to go forward. The question that I just want to establish from the baseline as we go forward is does California have a choice, an opportunity to adopt as protective a standard as the federal government offers us? I mean, the federal government under the Clinton Administration, under the present Bush Administration—a lot of folks will argue President Bush's administration is anti-environmental and yet if I continue to listen to the U.S. EPA, it's as strong as it was under Carol Browner with Clinton. It's strong under Christine Todd-Whitman, under President Bush. It's a stronger standard. Does California have an opportunity as we go forward as we get this CEQA off the ground to adopt a stronger protective standard than what we got last time?

DR. BONTA: Senator, it's my understanding that certainly through the CEQA process we will have this discussion. This is exactly what CEQA allows for in the discussion. So, I'm not sure, you know, what your question is beyond that. We have indicated that we will be going through a CEQA process. I don't know if Dr. Reilly wants to comment any further on that.

SENATOR ROMERO: Dr. Bonta, do you think that at the end of the day this is a, the science is out there, but this is a public policy choice. Just yes or no. Is this a choice, a public policy choice under your name that we will put forward? Is this a choice?

DR. BONTA: I think ultimately we will put forward a project that will be part of the CEQA process that will be our best recommendation policy.

SENATOR ROMERO: Is this a public policy choice or does the science mandate us to a particular policy?

DR. BONTA: Senator, I believe I answered the question.

SENATOR ROMERO: Is it yes?

DR. BONTA: We will, through the CEQA process, certainly hear the public input and certainly look at all the policy variables. You made a statement that everyone agrees with U.S. EPA on the standards. That's not what I'm hearing from all sources or we would have shifted, certainly, the regulation from NRC to U.S. EPA. We are going to attempt in concert with the community to best \_\_\_\_\_ here in California for protection of the public.

SENATOR ROMERO: For the record, I am going to interpret that answer as yes, we have a choice. I hope I'm not wrong.

Mr. Hirsch, if you care to comment on cleanup standards and then we're going to move to the next panel.

MR. HIRSCH: I'd just like to put this at the human terms if I may. The presentation by Mr. Walker about the methodology used by EPA and what is considered an acceptable risk range, and two or three key points.

EPA believes as I have heard the presentation that radiation should not be considered a privileged pollutant, it should not be permitted to kill more people with radiation than we permit for any other carcinogen. And

that the rule that was adopted here by the State of California was in fact outside the risk range that the EPA feels is acceptable. They did not concur on the rule. They said that it's not protective. Those are very important factors. To make this real, there's a site that I've been following for a quarter of a century called the Santa Susanna site. Department of Health Services has already signed off on cleanup standards for that site and if you go to the web site that Mr. Walker identified where they have the preliminary remediation guide values of EPA, and if you follow the EPA methodology, you will find that for a number of isotopes that DHS has signed off on leaving at very high levels, EPA estimates that the risk could be as high as one cancer in ten people exposed.

To give you a couple of examples, DHS is permitting 629,000 picocuries of iron 55 for gram of soil to be left behind when the EPA PRO is .8. In other words, hundreds of thousands of times higher levels being left behind that EPA would start at and thousands of times higher than they would say they would ever even fall back to. And the same thing with nickel 59, nickel 63, numerous other isotopes are being permitted by DHS as we speak to be left behind at that site, levels that the EPA's rules would say would be grossly unprotective of the public. And what that means when we talk about ten to the minus four, ten to the minus three, or ten to the minus two, just think of it this way—if you have a piece of property and you can permit 50,000 people to live on it. And you have a standard that says it's okay to kill one in a thousand. That means 50 people on your own estimate, would die. And if you look at, for example, the Santa Susanna figures using the EPA risk estimates, the DHS standards would result in dozens of deaths. And I just don't think that's appropriate. That's what this comes down to and it's not a scientific matter. It is, as you point out, a policy matter. How many

people is it okay to kill by radiation compared to how many people we say is okay to kill for any other carcinogen? And that's a matter for the Legislature. That's not a matter for radiation people in a small room to decide. That's a policy question. How many people is it okay to kill?

And so it comes down to me very simply. The EPA standards has its own problems as the Sierra Club points out. It would be nice if it were stricter in some fashions. But, when you have two competing federal standards and one is more protective than the other, for decades, California took the more protective standard, even pushed beyond what the federal government did. And I'm flabbergasted that we're regulating, and I'm not just talking about decommissioning, we're regulating operating facilities at even higher levels than the EPA says is acceptable even for contaminated sites that are decommissioned today irrespective of the CEQA process. So what it comes down to is a policy decision, I think for the Legislature, how many people is it okay to kill by radiation and should radiation be given a privileged status no other carcinogen is afforded. Thank you.

SENATOR ROMERO: Maria, did you have a question.

MS. ARMOUDIAN: Yeah, I had a couple questions. First of all, forgive me if you've already answered this, but how long is the CEQA process gonna take, first of all, what's gonna be the interim decisions and policies, and how much risk are we up against in this interim period of time?

DR. BONTA: The CEQA process is a long, complicated process. We have just worked \_\_\_\_ to try to formulate the best procedural way to do the EIR to be able to do all across the state. I do not have an exact time \_\_\_\_ moratorium will continue on the Class Three facilities. We will

continue to work predominantly to release facilities at a \_\_\_\_\_. I think Dr. Reilly has a comment.

DR. REILLY: Just very briefly, if you see other contentious environmental impact report processes, they can take many months or even years to complete. So we await to see how that process rolls out with the public participation.

MS. ARMOUDIAN: Could there be additional harm like what we've seen already in terms of groundwater contamination and any other kinds of contamination in the meantime that we need to address?

DR. REILLY: Following the discontinuation of the regulation, we were left with a standard that is in law in 517 regulation. That's states that the Department is to oversee, cleanup \_\_\_\_\_ contamination, and that the licensee is to \_\_\_\_\_ radiation.

MS. ARMOUDIAN: (INAUDIBLE)

DR. REILLY: Well, we're using that to move forward to look to protect the public health as this decommissioning process has happened on a case-by-case basis. So we work very closely with the licensees making the request and absent a dose standard, we are looking to have the cleanup occur to the lowest reasonably achievable method.

MR. GORDON: Dr. Reilly, I have one last question for you. DHS will be the lead agency in undertaking the environmental impact report?

DR. REILLY: As Dr. Bonta mentioned, we're gonna work very closely with our CalEPA partners— MR. GORDON: That's not my question. Who will be the lead agency?

DR. REILLY: I believe that the Department of Health Services will be the lead agency since we are sponsoring the project.

MR. GORDON: Okay. Next question. Since DHS has already used the scientific expertise of your Radiologic Health Branch and determined that 25 millirem was a safe protective level, do you intend to bring in any other sources as the lead agency, as you are aware, though maybe DHS isn't since it apparently doesn't do EIRs. The lead agency has a huge power in the ability to scope an EIR, and it is argued by some that if the lead agency comes into an EIR with a predigested position, that the EIR is not an open process and it has a predetermined result.

Now, being as your chief Radiologic Health officer is already on record in numerous instances and in numerous forms and you have numerous people within that particular branch lobbying the Legislature sending out emails all over the place about what a horror this is that non-scientists are looking at this, are you going to use the exact same people to do the EIR that have already developed the 25 standard and determined it's safe?

DR. REILLY: I think that the great value of the CEQA process is the very clear and powerful public participation component there. We will make exceeding, great use of that process. We will work not only with the public, but also with expertise, whoever would wish to come to the table to talk about alternatives, options to put forth on the project.

MR. GORDON: Thank you very much.

SENATOR ROMERO: Okay, thank you for this panel. Mr. Corcoran, just briefly?

MR. CORCORAN: Yes, very briefly. Again, you know, the role of government is to efficiently serve its constituents. And for this agency to continue to hold a very complicated process and to use the citizens as a guinea pig for their learning process on CEQA I just think is really outrageous and deserves further questioning. I also think that the

agency has its own problems with contamination and insofar as it goes into the CEQA process. And I think that Alan's questions were extremely good ones.

SENATOR ROMERO: Thank you. I want to thank the members of this panel. I very much appreciate you having been here today and testified and Mr. Walker, I hope you can enjoy some of our California sun.

MR. WALKER: Thank you.

SENATOR ROMERO: Thank you. Dr. Bonta, Mr. Reilly, Mr. Hirsch, I'm going to ask you to remain at the table. I'd like to go into the next panel. Looking at the location, disposal, and regulation of americium containing soil density gauges. Let me ask, well actually we'll have Dr. Gofman by phone.

This is an issue that surfaced recently. This panel was brought together because Channel 2 here in Los Angeles, KCBS, contacted my office regarding a particular piece of machinery that's utilized on farms and containing a radioactive material as toxic as plutonium. They came to me. We got information. I was a bit surprised to learn about this, I would like to show for the participants here today a video tape. One videotape aired about two weeks ago, I believe, locally. The second one aired apparently just last evening. And after showing this short segment, I would imagine the two last probably less than eight minutes.

I'm going to put on the phone Dr. John Gofman. Dr. Gofman was the founding director of the Biomedical Research Division at Lawrence Livermore National Laboratory. Unfortunately, Dr. Gofman recently suffered a fall and he cannot be with us in person. He is going to join us via telephone at the appropriate time. Alan, I'm going to go ahead and ask you to begin the tape and if we can get the lights dimmed.

(VIDEO)

Thank you, it's quite an investigation. Dr. Bonta, could you return to the table, please.

UNIDENTIFIED: She's gone out for one second.

SENATOR ROMERO: Okay, she's on her way out.

UNIDENTIFIED: ~ but she'll be right back.

SENATOR ROMERO: Okay, we'll get Dr. Gofman on the line. Sergeants, can we locate Dr. Bonta, please.

DR. GOFMAN: Hello?

SENATOR ROMERO: Dr. Gofman?

MR. GORDON: Dr. Gofman?

DR. GOFMAN: Yes.

MR. GORDON: Can you hear us?

DR. GOFMAN: Beg pardon?

MR. GORDON: Can you hear us?

SENATOR ROMERO: Dr. Gofman, this is Senator Gloria Romero. Can you hear us?

DR. GOFMAN: Yeah, I can hear it now.

SENATOR ROMERO: Okay, thank you. we are waiting for our witness to come forward. We're going to keep you on hold. We have just aired the tape which had the interview with you with Channel 2 news regarding the stealing of the americium, the statements of the Department of Health Services, and your questioning of the conclusions that have been drawn by the health officials here in California. we are waiting for the director, Dr. Bonta, to return to the table to testify. We would like you to remain on the line, so that you can hear the testimony and respond to the testimony. Is that okay with you?

DR. GOFMAN: Yes.

SENATOR ROMERO: Thank you. And we understand that you suffered a fall? We are sad to hear that, but we are all wishing for you to get well,

DR. GOFMAN: Thank you.

SENATOR ROMERO: Thank you, Dr. Bonta. Were you able to see the tape that we just aired?

DR. BONTA: Yes, I did see it. I'm sorry.

SENATOR ROMERO: Okay, thank you. I understand, again, too, and for the rest of you, so much as I recall, the restrooms are just right outside and to the right.

Dr. Bonta, according to the tape that was part of the investigation of CBS News and according to the Nuclear Regulatory Commission, there are in excess of 30 of these devices, americium devices currently missing in California.

DR. GOFMAN: Yes.

SENATOR ROMERO: Do you believe that this raises a security concern, to Dr. Bonta first, do you believe that this raises a security concern?

DR. BONTA: Senator, I think that we're seeing daily on the news increased concerns about terrorist activities, increased concerns about an impending war that may take place. So, as a consequence of this I discussed this with Director Vincent who is in charge of Homeland Security for California. \_\_\_\_ immediately, I'm sorry— SENATOR ROMERO: You can speak louder, Dr. Bonta, because Dr. Gofman is on us by telephone.

DR. BONTA: Okay. We have instituted, certainly, immediate actions to modify some of the material licenses that, including for instance, installing vehicle alarms, including installing double locking

systems and permanent fastening structures on transport vehicles, including the immediate report of lost or stolen devices not only to Department of Health Services, but to law enforcement authority, and certainly maintaining an inventory by serial number and type of each and every device in the possession of the licensee and report any change in inventory immediately to the Department of Health Services. I'm sorry, I still catching my breath from running down the hall.

SENATOR ROMERO: Okay. Dr. Bonta, Dr. Reilly was featured in this investigation. At least from the testimony that we heard in this video tape, he has indicated that there is no concern, there is no health risk. Is that, what is the position of the Department of Health Services?

DR. BONTA: I don't think that Dr. Reilly was saying that there is no health risk. I would certainly want to see the entire interview, because I think that it lasted more than an hour and 15 minutes and that repeatedly Dr. Reilly indicated that this is a serious consideration and that we would look certainly to protecting the public's health.

SENATOR ROMERO: On this tape it says that Dr. Reilly says that one curie is not a health risk and that even though each device contains 44 millicuries and 30 are missing that this does not disturb him, That even if all 30 were disbursed in a room it would not pose a health risk.

DR. BONTA: I think we're looking at the fact for instance, when we saw the item, the box, on that vehicle. If somebody came in contact to that box they wouldn't, not immediately, incur any risk because of the fact that that material is contained there. So, I'd have to look at the entire question and answer for Dr. Reilly to know what was that answer in response to. I think if he were asked in terms of, you know, does this amount of material present a risk, was the previous discussion on

whether it was broken or accessible or not, would be part of that complete answer.

We do have a concern, as I indicated, that certainly just this past week federal government has indicated that persons coming into the United States that they would be screening for radiological devices, radiation. This is something that has never occurred previously. If we're involving, Senator, certainly your understanding of the potential for devices, instruments, materials have previously were utilized in the public domain to have a use potential by terrorists. Just as fertilizer was never thought of as a potential for making bombs.

SENATOR ROMERO: Dr. Gofman, were you able to hear the testimony from Dr. Bonta?

DR. GOFMAN: I couldn't hear most of this. All I heard was one thing that a curie of americium would cause no harm and it also if he had 30 of these devices in a room it could cause no harm. That's all I heard.

SENATOR ROMERO: What would be your position on this testimony? Is it harmful?

DR. GOFMAN: I beg your pardon?

SENATOR ROMERO: In your opinion, would, is one curie a health risk with 30 of these devices missing, can you explain to us, can you help us understand whether or not the State of California should be concerned— DR. GOFMAN: That's the testimony I had prepared to give.

It's not something I can give you in an answer in 30 seconds. \_\_\_\_ the evidence and the suggestions that I have or one doesn't. And I'm very sorry. I can't give it to you in an answer. Is it a hazard or isn't it a hazard?

SENATOR ROMERO: Alright. Dr. Bonta, with regard to regulation, the concern was then too, does DHS have the ability, the authority to come in and to investigate the missing devices? Again, I've heard conflicting answers. Can you testi~ before the committee today and tell us what you believe as to what the authority is for DHS to regulate, to take a look at the disappearance of these materials?

DR. GOFMAN: It's not my role in this. I don't know who has what authority. I know what's been said, that's all, but I don't have any idea whose authority it is to come fri and regulate.

SENATOR ROMERO: Let me ask this of Director Bonta from the Department of Health Services with respect to the authority. What authority does DHS have over this concern? Part of the concern as evidenced on the tape is that apparently, DHS has not done anything about this. Can I hear your response, Dr. Bonta.

DR. BONTA: I think that some of the concerns certainly that we have raised that need additional legislative authority to implement the controls on this would include, for instance, levying administrative fines for radioactive material violations which we do not see clearly laid out in our current regulations as it pertains to this particular incident.

To increase our criminal penalties for violations of radioactive materials law and regulations. Certainly to increase our penalties for illegal possession or the theft of any of these radioactive devices. To increase the monetary rewards for persons reporting safety or security breaches as well. And requiring background checks for licensees and increasing license inspection. I talked to my colleagues from some of the other states that were indicated in that. They do not have any of these, as well. So, it is a new area in which we are looking at having legislative authority granted to us to in fact take more punitive actions against

those who would try to steal or to utilize these devices in a fashion that would put the public at risk.

SENATOR ROMERO: In the testimony for CBS News, it was told that DHS does not have authority to issue fines or other penalties. Do you believe that's accurate?

DR. BONTA: I'd have to confer with our attorney as it applies in this instance where our authority lies specifically and what areas, Certainly the ones that I indicated we feel that we do not have sufficient authority in this realm. We have already instructed licensees to take certain actions and we are going back and amending those individual licenses in the areas that we can to strengthen the potential for them to certainly have these devices kept under security so that, for instance, where it would have been a lock that might have been something that in prior to this enhanced concern of bioterrorism would have been sufficient, that we no longer deem it to be sufficient. But, in other areas that we do not. Deputy Director Yonemura, do you wish to comment?

MS. YONEMURA: Yes, thank you. in answer to your question, Madam Chair, the Department does not have the authority to levy administrative fines. We have the authority to levy civil money fines. However, that requires going into court. We have \_\_\_\_\_ criminal penalties. That requires going into court, finding that there actually has been a violation of the Health and Safety Code and then applying that in the criminal arena.

What the Director was speaking to was giving the Department, through statute, the ability to levy administratively fines \_\_\_\_\_ the terms that work for me to assist program staff in doing that directly. I'm speaking about the radiation control \_\_\_\_\_ would apply to the \_\_\_\_\_ devices that we're referring to today.

SENATOR ROMERO: We've passed— MS. YONEMURA: There are other aspects of the Health and Safety Code, for example, regarding a certain radiological technology devices Radiological Technology Act, we do have the ability to render administrative fines and to act more proactively against \_\_\_\_\_, but not

SENATOR ROMERO: Okay, we've handed to you copies, Section 115220 regarding civil penalties, violations of chapter or any rule or regulation, cumulative remedies. Do you believe that right now this provides you with the ability to be able to go after somebody?

MS. YONEMURA: This is the very provision I was referring to when I said we have the ability to levy civil penalties, however it is not administratively done. Civil penalties are penalties that are levied once one goes into court and actually gets the court to approve, to authorize the penalty. The Department itself doesn't levy them. The Department just makes the, takes the action in court.

SENATOR ROMERO: Why don't you go into court? I mean, you went into court with Committee To Bridge The Gap. Why don't you go into court on this particular issue which is right here provided to you by the people of California to protect the public interest?

MS. YONEMURA: Actually, we have on several occasions, and by going into court, certainly not that we are loathe to go into court. It requires either— SENATOR ROMERO: We wish you were loathe to go into court on other issues.

MS. YONEMURA: We, either with the Attorney General's office or a local district attorney, we have taken actions in the past. We are

currently on at least two matters working with the local district attorney regarding violations of the radiation control law.

Any regulator would much prefer to have the ability to level administrative penalties versus civil money penalties because it's a shortened process. It allows one to take the action immediately, puts the burden on the licensee or the person who's been fined to then appeal. It's a much quicker process that we would \_\_\_\_

SENATOR ROMERO: Let me ask this question. I mean, Department of Health Services has operated for how long? Over 40 years?

MS. YONEMURA: Certainly beyond my tenure.

SENATOR ROMERO: Okay, certainly beyond your—let's say approximately for 40 years. I guess the question that I would ask then is if you lack the ability to administer an administrative fine, why in over 40 years did the Department never come to the Legislature and say, "Give us the authority to be able to implement and enforce what's on the books."

MS. YONEMURA: My response, Madam Chair, would be this. Certainly 40 years ago these weren't issues. Five years ago these weren't the strong issues that they are now. As the director has indicated, we have all, almost on a daily/weekly basis become more aware of some of the concerns that these devices might present when in the aggregate someone with nefarious intentions against \_\_\_\_\_. There, we have not in the past sought administrative penalties. At least not in the last few years. However, we may very well do so soon.

SENATOR ROMERO: I would hope so. Thank you very much. Let me ask Dr. Gofman. I understand that you do have a prepared statement that you would like to read for the committee.

DR. GOFMAN: I'd like to read it, yes.

SENATOR ROMERO: Sure, go ahead, please proceed.

DR. GOFMAN: The issue is the health hazard from americium-241. It has recently been brought to my attention that some devices with 43 millicuries of americium 241 are used in part of a system which is routinely circulating on the streets or are present in trucks that are in garages. Some say 43 millicuries of americium 241 are no problem, no health problem. Others disagree. I disagree with that and I tell you why. Further, NRC has been notified that special efforts seem to be made to steal these americium 241 sources. The evidence indicates theft of some 30 such americium 241 devices that have been reported as missing as a result of break-ins easily accomplished. Who wants these sources badly enough to be accumulating a supply? Possible resale to the users of a monitoring system, that's one possibility. And the suggestion has even been put forward that a source of material for dirty devices with or without explosions attached might be wanted for terror use.

So we can summarize one device contains 43 millicuries of americium 241. Thirty devices stolen would mean something to the order of 1,300 millicuries, or it's well over a curie. And there are apparently many more devices out there beyond the 30 that are reported missing. Before going any further we should ask why americium 241, because americium 241 is one of a group of radio nuclides which have alpha particles as a dominant radioactive decay for the group of transuranic nuclides.

The elements represented among the transuranics are all of very high atomic numbers and such chemicals as high as uranium, element 92; neptunium, element 93; plutonium, element 94; americium, element

95; curium, atomic number 96, and there's some additional nuclides as well.

Of interest is that the chemical elements in this high atomic number region is of great similarity in the properties such as solubility of the elements in the oxide form and insoluble oxides formed in the heating are similar, but not identical. And another feature that all of these sources of oxide is insolubility. Chemists are often troubled by insolubility, but persons with an interest in \_\_\_\_\_ activities may make major use of insoluble oxides and all of the nuclides listed above are alpha-emitting radio nuclides.

Scientists have already shown that these oxides can be milled to select for particle size and toxic degree of solubility. So it's not a secret, apparently, to people who have malignant intentions that they can do the job of preparing what would be something that's the worst for use as a terrorist weapon. Also, someone wanted to disburse an insoluble oxide into the trachea bronchi, bronchial or respiratory system of humans such as plutonium oxide or americium oxide. The insolubility and the controllability of size, that is, the diameter of particles, a product is available for possible use now available to those who want to use them for malignant intentions.

Hence, for the prospect to deliver alpha particle radiation from particles that reside within the deposition site for periods like 500 days or more is necessary. Something like 500 days is mentioned because the radioactivity it's applying to the human organs are accumulating their dosage if it has a long period of activity in the spot where it is deposited. Whereas if you had only one day of exposure it would not amount to very much,

So, there is the possibility for delivery of a huge dose of alpha radio activity to a building or other structure where no one would even know what was happening in terms of poisoning in the form of future lung cancers in the next 50 years. You might only know about it when it's a little late. So insolubility of the oxides is a desired feature, particle size is a secondary desired feature. That's so much for the particles themselves of americium oxide.

But, then the real role that we need to know about is something additional and that's the role of the respiratory system. The bronchial system is divided into several parts with different \_\_\_\_ in the respective part of the system. Darren Thompson in 1974 were interested in knowing about lung cancers to be induced in beagle dogs after instillation of insoluble plutonium oxide or americium oxide, particles but they were using plutonium. To their surprise, nearly 100 percent of the dogs developed bronchoalveolar lung cancer, which is a rarer form of cancer. There were calculated \_\_\_\_ dog to man. Turned out that 28 micrograms deposited in bronchoalveolar lung cancer dose for humans would be the upper limit. Truly less than 28 micrograms might be involved since this experiment was one that involved saturation, so it might not have taken the whole thing.

But, this is for the rarer lung cancer, namely the bronchoalveolar lung cancer. Of potentially much greater importance would be the production of bronchogenic cancer, not the bronchoalveolar cancer, and that's in the intermediate bronchi, ones we refer to as segmental bronchi. Alpha particles will produce bronchogenic lung cancer while they reside in the deposition site.

What we would need to know for these segmental bronchi is, a) what fraction of the plutonium or americium deposits in the vulnerable

bronchi and secondly, how long will it stay there once deposited. In other words, we want to know the average residence time. Erroneous thinking of this subject came in with the ICRP, International Committee on Radiation Protection. Now, what did they say about their model in 1966 on the clearance of these particles? They assume essentially zero long-term retention of any, include plutonium oxide particles in the bronchi. Any long-term retention would only be in the bronchoalveolar region and that's not the one that's real important, because most of the cancers of the lung are in the segmental bronchi. There was no basis at all for this zero retention in the bronchial region. Task groups argument it was at cilia are missing from the bronchoalveolar region. That is, that part of the tracheal bronchial system is, has no propulsion device for plutonium oxide to come up from the broncheolar region.

SENATOR ROM.ERO: Dr. Gofman, we're going to have to wrap up. Can you finally just summarize? We're going to need to move one.

DR. GOFMAN: I'll just summarize it. What I'm saying is how many lung cancers might be producible by 43 millicuries and that involves taking the total number of microcuries and dividing by what's called the bronchogenic lung cancer dose. That's 0.0128 microcuries. That comes out to a calculation of over 3 million fatal lung cancers in the future. And if you have many times this amount, if you have many sources that can add to the already existing sources, there are many reasons why you can't be sure that these numbers are just right, and these also calculated out for \_\_\_\_ requiring a hundred times more plutonium oxide to get this result, but that would still amount to about 30,000 total lung cancers in the future.

I consider it quite a serious matter to know whether or not we have control of things when something like 30,000 lung cancers can be

produced by someone who has access to this material and is able to convert it into the form that would be retained in the lungs.

SENATOR ROMERO: Thank you, Dr. Gofman. We very much appreciate your testimony.

DR. GOFMAN: Thank you.

SENATOR ROMERO: Thank you. Dr. Bonta, I would imagine that if you feel there is a need to come up with more statutes to enforce these kinds of issues that you will be coming to the legislature?

DR. BONTA: That's correct, Senator. I spoke with Secretary Tommy Thompson this morning and asked \_\_\_\_\_ provide \_\_\_\_\_ on this issue, \_\_\_\_\_ certain he could refer us to any other regulatory agencies or experts in this area to assist us \_\_\_\_\_

SENATOR ROMERO: I'd like to call Dr. Reilly forward. I'd like to get clarification of his testimony. I clearly heard him say that we shouldn't worry about it. I clearly heard Dr. Gofman say on the tape in particular we need to worry. Can Dr. Reilly please step forward.

DR. BONTA: I'm not sure if Dr. Reilly is still here. We were not anticipating that he would be asked—he is not listed on the last two panels. Dr. Reilly's diabetic, so he may be eating right now.

SENATOR ROMERO: We were discussing americium and I would have hoped that he would have recognized that the americium, especially given the interviews that he had conducted that he would have been here to answer the questions.

DR. BONTA: Well, certainly, Senator, we can follow-up on any of your questions and I'm here as well as Deputy Director Yonemura to answer any questions. I'd also like to see the entire tape from the network.

SENATOR ROMERO: I'll make that request of CBS News and I'm sure they'll be happy to provide that to you.

DR. BONTA: Thank you.

SENATOR ROMERO: Mr. Hirsch.

MR. HIRSCH: I don't want to beat up on Dr. Reilly when he's not here, but I do want to comment on the statement that was made on the tape. And in it he indicated that there is so little americium in even one of these gauges and that even if 30 were stolen and released to a room or part of a building that the amount would be so much less than any health concerns that this is not something to worry about.

He said that you just do the math. Well, the math is very simple. The Department of Health Services defines what is a health problem in its regulations. It defines how much americium is permissible in air. And if you take just one of these gauges and disbursed it in the floor of a large office building, it would be at about a billion times the maximum permitted concentration in air under the Department's own regulations. If even assumed that that is only going to be an hour exposure and correct for that versus a whole year, they're still at about a 100,000 times the Department's own maximum permitted concentration.

So, I was troubled by what appears to be a pretty cavalier attitude on the part of the Department to this issue. They were first told we don't have the power to enforce regulations so although it violates our rules that these devices are left unattended overnight in the back of empty pickup trucks, we haven't enforced that rule because we don't have the authority to do so. They then refine that when you point out they do have the authority to say, well, it's a hassle for us to go to court, but that's, \_\_\_\_\_ been through 40 years of regulation without them enforcing the rules? It's very, very troubling.

And then the argument is that the stuffs so benign there's no need to protect it. But, at the same time they deny the public records request to the Sacramento Bee asking for this list saying that it's too dangerous to release for terrorist reasons. And now we've heard earlier today by Dr. Bonta that one of their policy recommendations is to go to the Nuclear Regulatory Commission and ask them to stop making public the list of stolen sources. First of all, once it's stolen, it's already stolen. It's not like a terrorist can steal it twice. But, how will we ever know that they're doing their job if once again there's an effort to close up that public information.

So, it sounds as though the Department has slightly changed course today from the positions taken for the last \_\_\_\_\_ weeks. But, I'm extraordinarily troubled that it took a television station to find an open warehouse with a open garage door with 30 of these things unattended all day and that the Department's attitude up until today at least has been its not a problem, even if it violates the rules there's no need for us to enforce it and we don't really have the power to enforce it. And it, again, makes me worry that in this era where radiological weapons are a very significant risk, that maybe this Department just doesn't have sufficient respect for the danger of the materials they're supposed to be regulating to actually be protecting us.

SENATOR ROMERO: Dr. Bonta, I'm gonna thank you for sitting here. I am disappointed that Dr. Reilly did leave, given that we were, whether or not we listed his name, we oftentimes have—I mean, ultimately, I expected the director will be able to answer the questions. I recognize, of course, sometimes as I turn my questions over to my consultant, I recognize that oftentimes we have to turn to staff to ask for it. And I respect that. I understand the very significant role of staff.

But, given that we had specifically a panel talking about the location, disposal, and regulation of americium, we knew we were going to be talking about the investigation that was started by CBS News that aired a few weeks ago and then again last night, just as of last night, a tape in which Dr. Reilly did answer questions, did represent the Department of Health Services in answering these questions, I would have hoped that Dr. Reilly would have made himself available to answer these questions, because I do agree, too, I'm a little bit concerned. I listened very carefully to your opening comments, very important comments with respect to the need for homeland security, yet when this issue arises as to perhaps there are devices out there containing plutonium that are dangerous, that can contribute to public health risks, not just in the immediate, but for the future, as well, and to have sort of a don't worry, at least, sentiment, with no enforcement, I have to question whether or not DHS is willing to go after those individuals and entities that need to be going after. And those are the concerns that I have. And, you know, as we conclude this, that's \_\_\_\_ I'll go ahead and go into the next panel.

DR. BONTA: Senator, can I make a comment?

SENATOR ROMERO: Sure.

DR. BONTA: We certainly want to protect the public and that is our role and we take that very seriously. That includes Dr. Reilly. There is no difference in our policy from several weeks ago to today. Certainly we want to enhance what we're doing. We're working with Director Vincent, we're working with Secretary Tommy Thompson with other states in a world that is changing in as closely as 24 hours in terms of the kinds of things that we look at. I assure you that in this regulatory world, as well, whether it's 40 years ago or it's today, that we continue to take very seriously the regulatory role such that we protect the public.

Senator, if I may say, there are incidents every day that we see untimely deaths of individuals, because of the fact that we discover that the law does not adequately protect in certain areas. I'll give you a for instance. For instance is approximately nine individuals per year have been dying in California because they have eaten oysters from the Gulf Bay. We have just instituted emergency regulations to safeguard those individuals and others that would be consuming these products such that they must go through a sanitization process prior to being received here in California. Those are the kinds of things that we do on a daily basis in the Department of Health Services whether it's in Radiological Health or it's in another area, we continue to use our enforcement capability, our regulatory ability, to put forth what is of concern in terms of the public safety and we will continue to do so, Senator.

SENATOR ROMERO: And, Dr. Bonta, I thank you for that statement. As I said in my opening statements, I applaud the Department of Health Services for the work it has done in areas pertaining to essentially health management. The issue of oysters is another example where I did state and I continue to state that I have very grave concerns regarding the willingness and the ability and the commitment of DHS to protect the public health, is with respect to the Radiologic branch.

And having said that now, I'd like to go to the final panel of the day in terms of questioning DHS's responses to complaints against regulated companies specifically looking at the case of Moravek Biochemical. I would like to call forward Mr. Gus, Bridy?

MR. BRIDY: [BREED-y]

SENATOR ROMERO: Bridy, attorney for James Dykes; K. D. Hughes, attorney for James Dykes; Margaret Kanishock, a juror in the

recent Dykes vs. Moravek Biochemicals; Kathleen Kott, a juror also in Dykes vs. Moravek Biochemicals. Dr. Bonta, I would ask for you to remain along with your appropriate staff. I understand that there are other jurors who did take a day off from work to join us today. If you are here, perhaps you could just be, you could stand and be recognized. I very much appreciate. I know we're running late. I appreciate you being here.

And let me, let me explain a little bit about this final panel. We're going to talk about, and again, too, we're not gonna retry the case. That's not the point. We're going to, I think it's illustrative of what occurred, and we have transcripts that we do have. I believe we made the transcripts, as they call them "the dirty transcripts" available to Dr. Bonta sometime back, as well.

We've had an opportunity to review the transcripts and I was very, again, surprised, disappointed, dismayed in reviewing that aspect of the transcript, that aspect of the jury trial which dealt with DHS's ability to regulate and to enforce and to take action where it is necessary to take action against regulated companies. The jurors, let me go ahead and say from the outset, deadlocked 8-4 in favor of awarding damages to Mr. Dykes.

This panel is going to look at a specific case involving the Radiological Health Branch, its response to complaints against a regulated company, Moravek Biochemicals. Mr. James Dykes, for the record, was the head of Radiologic Safety for the company in question, Moravek Biochemicals, which had, I would like to state, previously been investigated by the Orange County District Attorney for its actions when it was previously under the authority of Orange County. In the meantime, something had occurred and the authority was shifted to

DHS. But, while its, while Orange County had the jurisdiction, it had been investigated by the District Attorney. The Orange County District Attorney had revoked Moravek's license to operate in the 1980s for numerous serious violations.

Mr. Dykes called the Enforcement Division of the Radiologic Branch under the auspices of DHS in Orange County. He alleged numerous illegal activities were taking place at Moravek, one of the largest users of tritium in the country. Do we have the chart? And too, I think if we take a look at the chart that Mr. Giannopolous gave us earlier with respect to the preliminary monitoring, if we take a look at tritium and we take a look at, if we take a look at the Brea Landfill, which is the Olinda Alpha Landfill, one thing that immediately caught my eye was the level of tritium is elevated there for, it's double, double the maximum contaminant load at 40,000. So I just want that as background. I saw these data two days ago. Remember, the jury trial is over and done with. But, knowing that we were going to be talking about Moravek when two days ago the State Water Board gave us these figures, I was not surprised when I saw the level of tritium double the maximum contaminant load.

Mr. Dykes made numerous complaints to two employees at the Department of Health Services under the Radiologic Branch. Mr. C. J. Salgado and Ms. Barbara Hamrick, as well as sending a letter to the titular head of the Radiological Health Branch, Mr. Ed Bailey. Mr. Bailey, not Mr. Bailey, Mr. Dykes was subsequently fired from the company and he brought a lawsuit against his former employer for wrongful termination. The Radiologic Branch's chief inspector for Orange County, Mr. Salgado, appeared at the trial as a defense witness on behalf of Moravek, providing testimony as to the substance of Mr.

Dykes' charges against the company. Among other things, when asked about the Radiologic Branch's relationship with regulated companies, Mr. Salgado stated the following: 'This is from the transcript of the trial, Mr. Salgado stated, the regulations assume that the licensees are doing what they are supposed to be doing.' And essentially, that the only way that the Radiologic Branch knows this is by reviewing documents supplied by the licensees, okay. The regulators, we asked for documents. Documents are provided to me. The question that I would ask initially, and I think we'll go into the question first before we hear the testimony, the question that I would ask for Dr. Bonta and I believe, I don't know if we've given you transcripts here \_\_\_\_\_

(OFF MIKE CONVERSATION)

SENATOR ROMERO: Dr. Bonta, you will recall that last June when we had yet another hearing of the Senate Select Committee on Urban Landfills, I personally, I personally asked you for an investigation of the charges leveled against the Radiologic Branch in this case, and I asked for the investigation to be completed to report back to me within 30 days. That was last June. This is March 7th~ I will say, Dr. Bonta, to date, I never, I have never received a response. I'm just going to go ahead and state that.

DR. BONTA: Senator, I'm concerned, because I did send out a letter to you on March the 3rd to your office.

SENATOR ROMERO: March 3rd of this year?

DR. BONTA: Correct. That is several pages long that indicates what the investigation was and that investigation was inclusive of many agencies over the last several months. So, Senator, since that June time, we have been conducting a very thorough investigation of all of the allegations of the past inspections, of the allegations that were made at

the hearing, and certainly follow-up to also include undercover work as necessary.

SENATOR ROMERO: Dr. Bonta, I'll accept your answer as you've testified. I'm going to say, however, that it was no surprise this hearing was called for June 4, for today, March 7th The material that you sent to me was dated what day? March 3rd?

DR. BONTA: That's correct.

SENATOR ROMERO: Okay, two days ago? I'm just going to go back and again, too, I can provide you a copy of the letter I originally sent on June 7th, year 2002. The very last paragraph says, could you please investigate these charges and contact me within 30 days as to DHS's findings in this matter. If you delivered a response to me four days ago, I'll look to receive it. But, I will say though, I would have appreciated, number one, had you contacted me even as requested within 30 days at least to let me know, Senator, we're starting the investigation, we'll get back to you in maybe six or seven months. At least I would have certainly disputed that and asked for you to expedite that investigation. I know Senator Kuehi also asked for you, as well, to look into this at the very least I would have said expedite, but nonetheless, again, too, I'm just gonna go with the reality that it took months and months and months a few days before this hearing is scheduled, perhaps I get an answer. However—

MS. YONEMURA: Senator Romero, if I may, because my office participated in some of the investigation. As the Director indicated, this was a multi-agency investigation that could have not been completed in 30 days. It involved other state agencies. It involved several county agencies, regional air quality boards, and was more than just looking at

paperwork. It involved, as the Director indicated, undercover work that necessitated a much longer time than 30 days.

SENATOR ROMERO: Alright, Do you want to go ahead and I'm going to go ahead and turn this over to Alan Gordon now taking a look at reading from the record.

MR. GORDON: We've just heard Mr. Salgado's quoted testimony about how they did their investigation. That they basically took the records from the company and they don't look any farther. That's in the transcript in the trial. Now whether he was telling the truth or not only you at the Department can determine.

MS. YONEMURA: That's not all that's in the transcript.

MR. GORDON: There's, we'll give you an opportunity to respond in a second. There's one fact that's very relevant here, though, when you look through the entire transcript and you realize how regularly the Department was being asked to investigate Moravek and one of the things we were not able to obtain from the Department was any previous record was Moravek a good actor or a bad actor, would there be any reason for the Department to give increased scrutiny to this particular company.

We have just today, and \_\_\_ happy to make a copy of this available to you, I think it's yesterday, received an affidavit from a Mr. James Hartramp, who at the time, through the 1980s until 1985, was the manager of the Radiological Health section of Orange County. He was a public health physicist where he remained until August of 1985. He was the chief regulator for this company who DHS's regulators just looked at the records and said that's fine, at least according to the testimony.

What he stated in his affidavit is the following, "I was responsible for conducting all inspections of Moravek Biochemicals, Brea, California,

facility between the years of 1981 and 1985, 1995. Because the California Department of Health Services has refused to release requested inspection documentation, I cannot delineate the exact dates of all inspections from memory. I do recall, however, that the first inspection I performed at Moravek Biochemicals occurred just after Joseph Moravek moved the company from Los Angeles County to Orange County. At that time, I was contacted by Supervisor Don Honey, health physicist, Kim Wong and Don Bunn of the California Department of Health Services. They contacted me to inform me that they had conducted inspections at Moravek Biochemicals' previous facility and that previous inspections result revealed poor health physics practices. My first inspection of Moravek Biochemicals' Brea facility revealed fixed and removable contamination on wooden tables, benches, and equipment that were required to be contaminated prior to the removal from the Los Angeles facility. I further discovered that Joseph Moravek transferred radioactive material contained in products and waste from the previous facility. Because this waste material was required to have been disposed of in a licensed waste disposal site rather than moved to another facility on the first visit, I issued a violation of Moravek Biochemicals radioactive materials possession limit.

During another subsequent inspection I cited Mr. Joseph Moravek for having an underaged employee working in a radiation control area. This employee was his son, Paul Moravek. Over a period of time, my routine in follow-up inspections revealed a repeated trend of poor radiation control and improper waste disposal. At one point Moravek Biochemicals waste drums were leaking C14 and tritium so badly that the contamination was being spread throughout the facility into the office spaces and reception areas. I also found contamination of Dr. Joseph

Moravek's private automobile. The situation was so dire that I requested consent to survey his home. He refused and the state would not challenge Dr. Moravek's assertion to his privacy rights. Because of this massive contamination, Moravek's radioactive materials license was suspended. Dr. Moravek was also restricted to sale of previous prepared product only.

Final comment, when James Dykes was hired by Moravek Biochemicals this final requirement was lifted and as I recall, inspections began revealing a reduction of contamination and improved safety practices being employed by the company."

Now I am assuming that those previous records are in DHS's files somewhere even though you won't produce them. What level of environmental enforcement would the Department see fit when they looked at \_\_\_\_ with that kind of previous record?

SENATOR ROMERO: And this was well before 9/11, so I don't want to hear that it was a security risk.

MS. YONEMURA: I'm sorry, what was before 9/11?

SENATOR ROMERO: Moravek.

MR. GORDON: The previous actions by Moravek.

MS. YONEMURA: And the \_\_\_\_?

MR. GORDON: The repeated violations. Their actions were, and the investigation took place, or theoretically the inspection took place prior to that. What would it have taken for RHB to do an enhanced inspection of this company?

MS. YONEMIJRA: I'm not certain that at some time they didn't. First of all—

SENATOR ROMERO: Let's go through here. Well, perhaps we should ask Mr. Bridy, then, to go ahead and give us a summary at this point.

MS. YONEMURA: But, just a couple of things. Having read the official transcript, I note that Mr. Salgado also indicated that as follow-up to reviewing Department's or a company's records, he also does, or it's a practice to do an independent evaluation if he finds something unusual or questionable in the records, and that an independent evaluation on inspection always also includes interviewing employees and other investigative techniques. I wanted to make certain that the record is clear that that portion quoted from Mr. Salgado was not all of the testimony.

I'd also like to see the copy of what you have read here today, and we'd certainly like to look back at 1985 and 1988 if there were concerns about that. I'm concerned that such concerns would not have surfaced earlier than today, as well.

SENATOR ROMERO: And so you do agree that you would be concerned by listening to this testimony?

MS. YONEMURA: I agree that it needs to be investigated, yes.

SENATOR ROMERO: Would these records have been on file? Remember, it was Orange County before, it was transferred to the Radiologic Branch for oversight regulation, would these information about to get to having the license revoked, would that have been on the records maintained by the Department of Health Services?

MS. YONEMURA: I believe in the prior years there was a contract that had Orange County Department of Health acting in this capacity as an agent for the State, so I'd have to look at the exact timing so you may be referring to this individual with these concerns and in fact, they are

having acted as an agent to the state. So I'm a little confused as to what allegations he's raising at this time.

MR. GORDON: Would DHS records not indicate whether the licensee had had a previous \_\_\_\_\_ revocation?

MS. YONEMURA: I don't have that information in front of me now. I would assume that it would.

SENATOR ROMERO: Is any of your staff here available who could answer this question?

MS. YONEMURA: I'm sorry, the question of whether or not in 1985 through '88 there was concerns in terms of this licensee?

SENATOR ROMERO: Whether or not if a company had had its license revoked, whether or not DHS today would be aware of the pattern, the practice of previous citation of an industry that it regulates. Is anybody on your staff here who can address simply what information DHS has?

MS. YONEMURA: We would need to certainly go through what is archived for any of the businesses that are regulated in California and look at the records for that particular period of time.

SENATOR ROMERO: Mr. Bridy, why don't you go ahead and, and again, too, we're not, again, too, I'm not interested in trying the case. That's already been done. That's already been decided, etc. What I'm interested in is listening to how it pertains to my concern that the Department of Health Services fails to regulate.

MR. BRIDY: I can comment very specifically on that, and I thank you, Senator. You must understand here that our client was the radiation safety officer of this company. He and along with the three, there was a health physics team of three people, all three were fired. He made a complaint to Barbara Hamrick, to C. J. Salgado. Additionally

they received letters from an anonymous source indicating contamination problems at the facility indicating that they were dumping in the Brea Landfill, indicating that they were releasing and “they” being Moravek Biochemicals, releasing activity through stacks, dumping it down the drains.

And during the course of our cross examination of Mr. Salgado during the course of the trial when asked, what did you do to investigate Brea Landfill? We didn’t do anything to investigate that. Well, what did you do to investigate the accusations of dumping activity down the sewer? Well, we ran a geiger counter, we ran a geiger counter in the sink and across the pipes. Well, you know, geiger counters don’t pick up tritium. They knew that they were using tritium.

When asked poignantly, how did you conduct your investigation, we conducted our investigation by looking at records. I want to read you a line, and this was on page 102, it was line 16-23 in the dirty transcripts that we were just referring to. I asked him, “You essentially,” this is a quote, “you essentially have to trust the records.” His answer, “Yes, sir, we don’t operate under the assumption that the licensees are doing bad stuff. The regulations aren’t meant to capture that type of activity as a routine matter of routine inspection.” This is a man who has been informed by the radiation safety officer of the company that they were dumping in Brea, that they were releasing through the stacks, that they were dumping down the drain and he just trusted the records.

And I’ll pass the mike off to Ms. Hughes, because she has been intimately involved with this case longer than I have. I think will have a lot to offer.

SENATOR ROMERO: Ms. Hughes, welcome.

MS. K. D. HUGHES: Thank you, Senator. I agree that the case has been tried and the issues are set aside. The reason why we are here today is as a result of listening to the testimony of C. J. Salgado as well as additional testimony, we became so enraged at what we were hearing that we decided to change our focus and participate with you with regards to these questions that are being posed to DHS. And indeed, Mr. Dykes, back in 2000, posed concerns to DHS. And the only response he got was from Barbara Hammer and the response was, would you join my lobbying efforts against your bill, Senator. And when he responded, he being Mr. Dykes, responded by saying, I don't want to join the lobbying efforts against dumping. I want you to listen to my complaints. I am concerned about this and I need somebody to listen to me. He got no response at all. It was at that point in about June that you asked DHS to follow-up on the inspection.

Now one of the bases of requesting DHS to follow-up on the inspection they had already engaged in was because they were told that there was contamination in a cold zone, in an area of the lunchroom, in areas that should not have contamination at all. Indeed, when they went in, they found contamination there. Yet, they never went to the hot area. They never checked the records, they never went to the hot area. They never asked where's this contamination coming from? As a result they were asked to go back and redo the investigation, report to you, Senator. Why is it you're not providing the answers necessary in response to these complaints? October 30th, 2002, they went back in. Today, if you ask DHS or any representative who participated in that inspection, did you go up on the roof? The answer is no. Did you look in the sewer system? The answer is no. Have you gone to the landfill? The answer is no. Have you noticed that there are discrepancies in the monitoring reports,

such discrepancies in fact, that you notice a continuous pattern of contamination up to the day my client was terminated. From that day on to today, no contamination is ever found. That's impossible. Not in a facility with the levels of radloisotopes that they utilize, the types of radioisotopes that they utilize. It's impossible not to have any contamination. Yet, the discrepancies in these documents are so significant DHS hasn't even noticed it.

Secondarily, and brought up in a previous conversation in a previous panel, these people work with other toxic chemical substances, such as cyanide. Such as photofix. When asked, how much photofix does Moravek Biochemicals have on premise today? A week after you've done your inspection, no one can answer the question. When asked do your waste manifests show that things like photofix are being disposed of properly, no one can answer the question. I'm here today as a member of the public, because not only are these questions pertinent and important to this case, they're important to me as a person who drinks the water out of my faucet, as a person who likes to engage in activities outside. They can't answer these questions despite (LAPSE IN TAPE) senior radiation of this company of specific allegations. They clearly are not asking the questions to ascertain whether there's even validity to the allegations. And now, well after two years after these allegations have been waged, will they find anything? I don't know. Frankly, I don't care whether they'll find anything. What I care about today is why aren't they looking? And that is a question that I think you initiated this committee hearing with and I think that's probably the most poignant question with regards to this hearing today. And I will now pass the microphone over to Mr. Bridy, because he clearly has something to add.

SENATOR ROMERO: Mr. Bridy.

MR. BRIDY: Well, if I may, they did indeed, in fact, find something, and they found it in the Brea Landfill. The find tritium twice the allowable limits.

SENATOR ROMERO: As announced two days ago.

MR. BRIDY: As was announced two days ago. But, incidentally, which was never investigated by DHS. It took the Water District to find that out.

SENATOR ROMERO: Correct, correct. Dr. Bonta, again, too, this is my concern. I'm looking at the process. Part of what my concern with DHS is not only of course in terms of its ability to adopt standards that are protective of the public health. I'm interested in looking at how do we regulate. And I asked this in my opening statement, is DHS a captured bureaucracy? Is the Radiologic Branch somehow too close to the industry? Is this like the hen guarding, the fox guarding the hen house? Maybe the hens should start guarding \_\_\_\_\_. (LAUGHTER) The question that I was, it's I'm disturbed by listening to the response of Mr. Salgado who indicated that basically it's a trust system. I go to a company where allegations have been made and I ask you, did you illegally dump and they say no, and I say, okay, great. I'm outta here. How am I supposed to look at this? When I go through this as well, maybe this is the time to bring this up in later testimony, as well. This is the owner of Moravek, Mr. Moravek, who is being questioned. And this is the line of questioning, question posed by the attorney, "Has there been changes to your licenses over the years?" Mr. Moravek answers, "Of course. Licenses are renewed or adjusted periodically, and the renewal of our license is now due in the near future and we were told it is prearranged for the next ten years." Question, "So who told you that you are going to get a license for another ten years?" Answer, "Licensing

department of the Health Department in Sacramento.” I was absolutely dumfounded when I read this testimony under oath, knowing full well I lie on the stand I am suspect to perjury charges. You can imagine the embarrassment I, as a state senator, have when I read this testimony about prearranged licenses for the next ten years? With a company that we know had its license revoked before when allegations were made? Somebody came out and said, I looked at the records and of course, you know, if it’s not reported in the records if I don’t volunteer that I’m dumping, just simply outta here, and then to read that licenses are prearranged for the next ten years and that was done by the licensing department at the Health Department in Sacramento? Dr. Bonta, help me understand, if this is true, and it’s under oath in a court in California, help me understand what DHS does when a complaint is lodged asking the Department, asking the Department as I know you want to do. And I believe you want to do it. Asking you to come out and investigate. They’re not even asking you find something. Investigate. How do I understand this, Dr. Bonta? Chief Counsel.

MS. YONEMURA: If I may, Senator. Just as with the video that CBS produced, we would like to see the, we want to see the entire transcript, because bits and pieces are taken out. It would be helpful if we knew which attorney was questioning and whether or not if this was crossed or if there was any redirect and so forth.

MR. BRIDY: That was his attorney. That was his attorney who asked the questions. This was prepared, prepared answer and question.

MS. YONEMURA: Then that’s probably all the more reason why we’d want to look at it further. But— SENATOR ROMERO: And I will say take the time, look at it. I wish DHS had taken the time to look at the investigation beforehand, but

I think we've provided you with the transcripts when Dr. Bonta, in our phone conversation I indicated that we would send it over to you. I would urge you, read through them again. I'm not interested in retrying this case. It's out of court of law, but— DR. BONTA: This was not included in what you gave us.

MR. GORDON: No, this just came yesterday.

MS. YONEMURA: Thank you. Thank you for that clarification.

MR. GORDON: (INAUDIBLE)

MS. YONEMURA: Because I don't recall reading that.

MR. GORDON: You did not receive this. I received it yesterday at four o'clock.

SENATOR ROMERO: And I stand corrected. We'll go ahead and make sure that we give you that transcript as well.

MS. YONEMURA: That would be very useful, Senator.

SENATOR ROMERO: Okay, and so today then I guess it's simply the answer is we'll wait and take a look at the testimony. But, let me go back— MS. YONEMURA: Not necessarily, not—two things. One from me and the Director would like to say some words. We just have a question as to whether this lawsuit is completely finished. We understand that there was a hung jury on at least one of the issues and we questioned whether or not there will be a retrial of these issues and whether or not that being the case, it's appropriate to go into as much detail as we going into.

SENATOR ROMERO: And I don't know that, Mr. Bridy.

MR. BRIDY: There will most certainly be a retrial of these issues.

DR. BONTA: Senator, I'd like to address some of your questions specifically in terms of the investigation of this agency and I'd like to read

them into the record. There were several allegations certainly from that June letter that came to our attention. A thorough investigation of Mr. Dykes' allegations have been conducted by a multi-agency group consisting of CalEPA, the State Air Resources Board, the State Department of Toxic Substance Control, the Southcoast Air Quality Management District, the Santa Ana Regional Water Quality Control Board, the Orange County Sanitation District, and the Orange County Health Care Agency, as well as the Department of Health Services' employees from the Audits and Investigation Division so that we would have a separation here, as well as the Drinking Water and Environmental Management Division, and the Office of Legal Services. It has been extremely comprehensive in involving multiple agencies.

In addition, the Radiological Health Branch inspections, not inspectors, not previously involved with Moravek, have participated with other state and local agencies in a comprehensive investigation of the company's compliance with health, safety, and environmental regulations and the Brea Fire Department provided logistic support to the group. This multi-agency investigation was planned and coordinated over several months and it was designed to achieve a comprehensive review of the operation of the facility by the state and local agencies that regulate potentially harmful activities carried out by Moravek.

This investigation included on-site monitoring of Moravek discharges as well as a joint on-site inspection on October 30th as well as 31st of 2002. This was unannounced. This multi-agency investigation did not find conclusive evidence of illegal disposal of any hazardous or radioactive waste by Moravek.

Let me just summarize some of the things in terms of the allegations that were made.

SENATOR ROMERO: Dr. Bonta, if I might just so, for a moment, interrupt. I mean, I'm pleased to hear that, and that sounds absolutely terrific. I mean, I'm so impressed with all the multi-agencies we have in California. however, you know what gives it away? Your date. You said October 30th, 2002. To my understanding, this came after, after a request from the California State Senate to the Department of Health Services to investigate this. And my question would be, is this what it takes? Does it have to be every, does it have to take somebody who has to go to court, has to come to a State Senator to say, can you go and ask the Director of the Department of Health Services to direct her employees to undertake an investigation? I personally don't want to undertake that job. I would like to make sure that our Department of Health Services conducts these investigations on their own without two senators asking you, please go and investigate and let us know what's happening, because obviously, something's not happening in the Department that's supposed to be doing this.

MS. YONEMURA: Senator, there were investigations previous to this. Frequently, we receive anonymous information. That is very hard to corroborate with individuals, because you don't know who it is you're supposed to be asking that could have been a witness.

Let me indicate to you that Moravek, you know, one of the charges here is that Moravek released excessive amounts of tritium via the hood exhaust. And the only evidence of the tritium releases was the statement of Mr. Dykes in his June 3rd, 2002, letter and during his interview with the investigators. At this interview, Mr. Dykes accused Moravek of making a practice of releasing tritium into the atmosphere over a period of several years. Remember, he was a safety officer there. He was

unable to provide specific dates for these alleged releases. He could only say that the alleged releases occurred sometime between 1998 and 2001.

Again, as radiation safety officer during this period, Mr. Dykes had a duty to report such a release of radioactive materials to the Radiologic Health Branch and he made no such reports. We're now trying to go back several years later and trying to piece together what actually occurred and to try in as much depth as possible. And on many of these allegations, I'll cite another one, it was alleged that Moravek illegally transported and disposed of mixed wastes from its Brea, California, site to Richland, Washington, and mislabeled radioactive materials destined for Barnwell, South Carolina. Moravek operates a processing facility in Richland, Washington, in the State of Washington, and Mr. Dykes claims that the transfer of radioactive material between the Moravek facilities in Brea and Richland, was illegal waste disposal.

The Washington Department of Ecology received a similar complaint, anonymously, in 2001. Radiologic Health Branch investigated this issue in May of 2001, Senator. So, as we received the complaints, we investigated it. This did not occur after your hearing. This occurred before the hearing. And, again, in conjunction with staff that was beyond us, these are staff of the State of Washington that also did the investigation in November of 2001.

The Washington Department of Ecology also inspected Moravek's Richland, Washington, facility. The Radiological Health Branch, the Washington Department of Ecology, the Northwest Interstate Compact Committee, and the Southwest Low-level Waste Compact Commission have now all reviewed and where necessary, approved the transfer of the material from Brea to Richland by Moravek. You know, again, we were looking at what were the specific dates that Mr. Dykes was saying that

this activity occurred in. What, to try and get to the bottom of this. This is not just us, Senator. These are other agencies. I cite those agencies not because we are not taking seriously our duties in Department of Health Services, but since you have these concerns, to indicate to you where we have involved all these other agencies which certainly take this responsibility very seriously.

MR. GORDON: \_\_\_\_\_, you referenced anonymous complaints that were received, \_\_\_\_\_ document right there which is one of the anonymous complaints that go to the Department. Very difficult to read, I acknowledge. It was faxed to us. But, you can get the gist of it. It's an employee who followed, it was a radiological safety officer at Moravek who followed Mr. Dykes. And he says he's afraid to come forward. You think his fear of coming forward and talking to the Department could have anything to do with the fact that they were receiving letters from RHB personnel asking them to lobby against legislation?

MS. YONEMURA: Again, I'm being handed this piece of paper. I need to read it. I need to look at the dates on this. I see it's a June, '01 on the top of this? I understand your allegations of lobbying were in '02? So I'm trying to piece together what it is your question and allegation.

MR. GORDON: The series of emails that began from your managers in Southern California began, the ones that you have there are later. We need to go back. We do have a \_\_\_\_\_ against legislation and oversight began much, much earlier from your own personnel. Now, Mr. Dykes was fired after making allegations to the Department. This gentleman sends an anonymous complaint to the Department saying that Mr. Dykes had been fired previously. You think there's a possible chilling effect that occurs when the licensees who are getting emails from their regulator asking for certain activities that maybe those licensees

believe that if they don't do what the regulator asks that there could be adverse consequences? I understand the public employees have free speech rights, but should they be engaging those free speech rights with regard to the very companies that they are supposed to regulate under the law?

MS. YONEMURA: Again, you raise these questions in terms of the email. And the email in question was sent on February 24th, 2002, to a member of the Southern California Health Businesses Society concerning pending legislation.

MR. GORDON: We can send you a file like this of previous emails from your Southern California department if you'd like. This lobbying has been going on for years.

MS. YONEMURA.: Well, then I'd like to see them. Again— SENATOR ROMERO: Could you answer, don't know \_\_\_\_

MS. YONEMURA: Don't have the full information. We can't certainly investigate at the level. What I did investigate is what you presented at the June hearing in terms of this email. We looked at, we had our Audits and Investigation Division, this is apart from the people in Radiological Health, conduct an investigation of the email. It revealed that it was not produced on state equipment, on state time, not sent through state facilities. The text of the email indicates that the writer was not speaking on behalf of \_\_\_\_\_

SENATOR ROMERO: Dr. Bonta, Dr. Yonemura, let's get back to the issue. Can you answer, I believe it's a question of ethics. It's a question of ethics. Do you believe that it is appropriate for a regulating, a regulator to contact a licensee over which the regulator holds that licensee's livelihood, future, economic well-being, and for the regulator to ask the licensee, send forward legislation, send forward letters opposed

to legislation because I'm asking you to do so. Yes, it's free speech, but is there in your mind a question of ethics in this situation?

DR. BONTA: I would need to respond to only what I've heard today as new information of voluminous emails. What was presented, Senator, in June, was a specific email that was sent to a society. It is always important to me to have the utmost ethical behavior of all of our staff members. We have not seen evidence that any of the staff members have done anything unethical. Certainly, if you have information in an email beyond what I have, we will thoroughly investigate this, Senator, because we do not want to have any appearance, certainly, that there is pressure on any organization, any licensee, certainly, in any of these matters. Their responsibility and their interaction is strictly limited to their inspection type of activities.

SENATOR ROMERO: Dr. Bonta, let me go back to the question. It's a question of ethics, And I believe the State of California is very strong in many respects with respect to making sure that we do not exert undue influence. We have Statement of Economic Interests any time, and I sit on the Rules Committee, the California State Senate. We quiz every single confinee who comes before us to ask them about potential conflicts of interest. This time, more specifically with respect to economic interest. The question I would ask is just overall, in your department, do you believe, are you concerned at all that there may be a conflict of interest when the regulator who oversees the licensee and the licensee knows it's the regulator that say thumbs up or thumbs down or I investigate you or I walk away with a prearranged license for the next ten years. Do you believe it is ethical for a regulator who everybody knows is the regulator, to contact that licensee and to ask them, will you

send an email lobbying against Senator Kuehl's bill, or Senator Romero's bill or anybody's bill for that matter, do you believe it is ethical?

DR. BONTA: I don't have evidence that any staff did that, I want to first say. And I would need to look at the record in this, Do I think that individuals in my department should be actively having even lunch or discussions outside with any of the parties that they're regulating. No. That is not something that we encourage, but, I also am respectful of their first amendment rights, and their rights as a citizen, certainly, to indicate their opinion on their own time with their own resources and that they have constitutionally protected rights.

So, Senator, it's not a yes or no, because what I personally believe certainly is to have the utmost of ethical behavior throughout our department and it's something that we take very seriously. We also know that there are protections inherent in the law in terms of all people including our employees.

SENATOR ROMERO: Dr. Bonta, I would ask you as you go back and consider everything we're asking you consider today, that I do believe that there is, can be an appearance of coercion for licensees to follow the behavior. It's not too unlike sexual harassment. It's not too unlike a lot of other issues under which California does provide for the protections. I do believe in free speech. But, I am very concerned that sometimes the regulator can have undue coercion over the licensee. But, having said that, and since I could not get a yes or no, I'll leave it at that.

MS. YONEMURA: Senator, I'd also like to say I find it of concern that we don't, that we seem to come to committee meetings and receive information here. So, if there's anything that certainly, if there's a delay in knowing information about any of our licensee, if there's a delay in

knowing information that would be pertinent on our employees, it makes it difficult to do an investigation.

SENATOR ROMERO: Dr. Bonta, let me go ahead and just say, I mean, I am under no obligation to turn over to you every piece of material. If you want, you know where my office is located on the fifth floor of the California Capitol. You want to come in and look through my binders and look through my files, you know what? You're welcome. If that's what it takes for DHS to get an investigation going, come visit me on the fifth floor of and I'll open up my office and you can look through every single one of my binders.

This is not meant to broadside anybody. I don't play those kind of games. However, I am extremely disappointed that Mr. Kevin Reilly left before we got to the americium where I would say essentially he made some comments that are absolutely outrageous. I would also say as well, too, though, that in that respect given, we gave you the agenda. You knew what the agenda was. I would expect at the very least in here, you know what, you do your homework. You walk in here prepared to answer the questions. And if you don't have the answers, fine. Then we'll go back and if we have to have another hearing, we'll do another hearing.

But, for you to somewhat allude that I'm hiding information or \_\_\_\_\_ I expect you, quite frankly, I was a professor for 20 years before I came to the California State Legislature. And you know what? I expect students to do their homework. I expect nothing less from a director of the Department of Health Services when americium has been in the news, when Moravek has been the subject of a court case, I just expected that I could get some answers today. And I'm located on the fifth floor. You're welcome to walk on in and I will give you my whole binder so that

next time we have this conversation you can be totally prepared and more. Thank you.

I believe we have a juror who's with us today who wishes to testify. I have two jurors listed. I'm not sure if you're Margaret or Kathleen,

MS. MARGARET KANISHOCK: We're both here.

SENATOR ROMERO: Okay, Margaret Kanishock and Kathleen Kott. If you could identify yourselves.

MS. KANISHOCK: Yes, my name is Margaret Kanishock. Thank you, Senator. I was selected as a juror on that case never having anything or any knowledge about radioactivity or any type of facility that had to do with anything like that. And I was taken aback, also, as a government employee. I am a county employee. I work for L.A. County Fire, as the assistant to the Fire Chief. And just to think that if our inspectors went out and asked the facilities we inspect, smoke alarm working? Are the sprinklers working? Yeah, they are. We have these huge third, fourth alarm fires because our inspectors took that on an honor system and to hear Mr. Salgado say, it's an honor system. It's an honor system. And if there is a concern I think that was brought up by Mr. Bridy. If there is a concern, well, you have to have some evidence that it's really something that needs to be reported. And just to know that Mr. Dykes went to the levels that he did to try to get an answer to find out what was going on and even more so, because I have family and friends that live in that area and just the idea that there were tabletops and refrigerators that were taken to this landfill.

And the concern, it was just the core values. I don't know if DHS has core values, but I just saw no integrity, I saw no commitment and no caring in his testimony. And it just took me aback. And having moved

from L.A. County to Orange County, that really took me aback. It was just amazing how that testimony just stuck with me.

SENATOR ROMERO: Thank you. (INAUDIBLE)

MS. KATHLEEN KOTT: My name is Kathleen Kott. I was also a juror on this case. I guess I represent the community or the public that Dr. Bonta and Dr. Reilly professed to want to protect. I have to tell you that I left that courtroom horrified by Mr. Salgado's testimony.

I'm retired now. I also live in North County, very close to the Brea Landfill. I was also a public employee and at one time had responsibility for oversight of contract employees and contract agencies and clinics. And we have also worked with DHS trying to maintain quality review. I just could not believe that a state employee would come in and one, be so evasive to direct questions trying to seek the truth; two, be hostile to the plaintiffs attorneys; and thirdly and most importantly, that a person who is apparently their chief inspector would do a cursory evaluation relying on a checklist that from my experience is only the jumping off point. If you're going to do any kind of evaluation or an inspection, for heaven's sakes, you would certainly start with a check list just to trigger your memory as to the areas to be investigated. I saw none of that. This man took no swipes, went, you know, out of this way to indicate that any infractions, excuse me, they weren't violations, they were recommendations. But, any recommendations were minimal.

I think I was also very startled to understand through direct testimony that at the conclusion of the inspection, a letter was sent to the owners of this company with personal remarks at the end, thanking them for their cooperation and hospitality and blah, blah, blah. And this just kind of reeked of kind of a symbiotic relationship that I don't believe

should exist between a regulatory agency and someone under their purview.

I wrote a note to the judge, because now in courts, you may do that if you have questions. And I wrote a note asking whether Mr. Salgado was receiving gratuities from Moravek Biochemical, you know, in regard to, you know, the kind of reports he was giving. Apparently that was asked and he denied any kind of gratuity. But, for me to think in those terms, I can only try to convey to you how biased his testimony was, how hostile he was. The plaintiffs attorneys had to ask and reask and he could not remember or it was almost as though he felt it was so irrelevant that he, you know, disdained to comment.

I am very concerned when I heard the gentleman from the Sierra Club talk about risk, you know, equaling human disease and human problems. I think also that we shouldn't lose sight of the fact that when we're talking about risk factors, we're also talking about cancer rates. And as a, you know, someone who does have cancer, someone who does live in Orange County, I'm really concerned. Our rates for three type of cancer in Orange County are just, you know, off the charts. We just have more cancer than you can possibly believe. And having conditions like this obtained, certainly don't make me feel that, you know, DHS is there to protect me, despite you know, the disclaimers from your other witnesses. And thank you for your time and let me say I admire you for doing this investigation.

SENATOR ROMERO: Thank you. Ms. Yonemura.

MS. YONEMURA: Thank you, Senator. Not in response to the last testimony, I think the transcript will speak for itself as to Mr. Salgado's testimony. But, because it was mentioned that there might be some bias and want the record to reflect that Mr. Salgado was subpoenaed. He

didn't testify voluntarily. He was subpoenaed by both parties and was called to the stand by the defendant.

SENATOR ROMERO: Thank you. Okay, this concludes this panel. I very much appreciate your testimony today. We have some challenges ahead of us. I do look forward anxiously to DHS and these multi-agencies conducting the CEQA review. I certainly will be monitoring and the committee will be hoping to participate and to watch this at every step of the way. I will say that I am very disappointed by what I learned today, the information given to us by the Water Board just a couple of days ago. I think it's frightening for every Californian.

I'd like to thank the jurors who I have not met until just right now, I appreciate you coming forward and I know it took a day off of work. To me, the point is and again, too, I don't know the specifics of this one particular case, I'm interested in looking at how we oversee at our regulatory oversight. I do believe we have to have agencies that have teeth and are willing to go after violators of the public health. And that's what I want to achieve.

Dr. Bonta, I know at times I've come up very hard on you. I will come up very hard again as we go forward. I do want to reiterate, however, that with respect to your responsibilities in all other matters pertaining to health services, I'm very proud of the work you do. I do believe this one division with the Radiologic Health Branch I do believe is deeply problematic. I look forward to having a continued discussion with you and others as we go forward. And I thank you for being here.

We now have time for public comment, If anybody's interested in making a statement before the committee, please come up before us. I believe we do have the Honorable Councilwoman from the City of Calabasas, Ms Janice Lee. Thank you very much for being here today.

And other folks who might wish to speak before the committee, you can go ahead and join us, otherwise we'll conclude upon the presentation of Councilwoman Lee. Thank you for joining us.

MS. JANICE LEE: Thank you, Senator Romero. I'm Janice Lee. I'm a City Council member with the City of Calabasas, former Mayor and I'm actually concluding my four-year term to go back into the private sector as an environmental advocate.

And I'm here today in my last few weeks as a councilmember to hear what was conducted this morning and what I can say to you now is that I'm absolutely shocked not only because I've spent 12 years studying the Calabasas Landfill in relationship to Rocketdyne/Santa Susanna field laboratory, but because there is a condition occurring in our city with this once Class One landfill. It is now breaching TCE. and it lies south of Rocketdyne by several miles. Between the two sites is a site that is being proposed for a new city that has now detected perchlorate on one of its wells.

I would just like to say this afternoon that and I brought this as a sort of a physical descriptive of what's happening in our city. If you imagine this tube to be the watershed, the Malibu Creek watershed, and at the base is the Pacific Ocean, and at the top of the highest elevation in the watershed Rocketdyne. This laboratories that conducted multiple nuclear reactor experiments had multiple meltdowns, had a situation that were by far some of the most contaminated site in the United States. And this was a site that was being contracted by the Department of Energy, the Department of Defense. It is now being cleanup up by the Department of Energy and as you may recall six months ago, Senator Boxer produced a document response letter from the Secretary of Energy stating that Rocketdyne had been disposing of low-level radioactive waste

for decades and continued to do so at three of the landfills in our communities, Bradley Landfill, Sunshine Canyon, and the Calabasas Landfill.

Let me tell you that our Council and our community was stunned. It goes to the heart of what's happening here today. once again, our community was not informed of the documentation of the samplings taken on the water, the radioactive water samplings. We were told after it was found out by reporters and we made an effort to contact our citizens who live around the landfill to give them some heads-up so they would not be broadsided, This is an issue of people's livelihoods, their children's health, their property values, and yet the agencies that take on these obligations to test and inform the community fail time and time again to let us know, not only their elected officials. They don't even tell each other.

And that is why today I'm here to explain to you what is happening. We have Rocketdyne at the top of our watershed. We have in the middle a piece of property that is 2,800 that is being proposed for a new city. It presently sits undeveloped. And at the bottom, before you reach the bottom of the watershed is the Calabasas Landfill, which was for 20 years, a Class One landfill.

I'm not gonna go into detail today, but I am going to be submitting details of the historical information which now in my view corroborates the fact that this property in between acts as a cork holding back Rocketdyne contaminants that are now flowing down through the watershed, are now being detected at the landfill at Calabasas and what is astonishing was absolutely astonishing is that we are seeing the same contaminants all in these three locations. And yet, several of these locations are not being tested by the agencies for the very things that

we're here talking about today, to corroborate what is happening and how it's happening and how serious it really is.

I must tell you, as a councilmember for four years, asking for data and not getting it, having the agencies in particular Department of Health Services coming to our council and promising to do certain things for our testing to corroborate the safety to our citizens, and not doing it and not notifying us that they weren't going to do it until you began to ask questions about the safety issues.

I believe that there should be a federal grand jury convened to investigate the Department of Health Services for failure, repeatedly, not just in the last few months or in the last few years, but repeatedly over years, to withhold, to conceal, to distort literally distort the level of risk to our citizens that we may now be facing a situation where the failure to do the tests they should have done, the failure to notify elected officials so we could follow through, the failure to inform the public of the truth is literally going to set in motion a chain of events that are unstoppable.

We've been listening for days now about terrorism and sleeper cells. I submit to you that every landfill in the State of California constitutes a sleeper cell if we are not getting the truth about the types of hazardous materials, radioactive materials that are posing a health threat day to day to citizens who cannot get the truth no matter what they do, even when they ask their own elected officials. I believe this is criminal. And it deserves the type of investigation that takes it out of the hands of the very people we suspect are continuing this pattern of defiance of the public safety.

And I urge you if it is the last request I make as an elected official, to do that. And if there is nothing more to be done from the Department of Health Services, if they can persist in telling us that we are not going

to get the information we need, then I am asking you to close Calabasas Landfill now. Thank you.

SENATOR ROMERO: Thank you, very much, Councilwoman Lee. And let me thank you for your years of service to the community of Calabasas. I've been long familiar with the work that you have done and I wish the best of luck as you go forward in your private life. I have a feeling you're still going to be a very strong and passionate when it comes to protecting the public health of the people, not only of Calabasas, but in California. Thank you very much. Sir.

DR. ALAN PASTERNAK: Senator Romero, thank you for this opportunity for public comment.

SENATOR ROMERO: And for the record if you would identify yourself.

DR. PASTERNAK: My name is, I'm Dr. Alan Pasternak. I'm the technical director of the California Radioactive materials Management Forum. We are an association of organizations that use radioactive materials in the four states of the southwestern interstate compact of in alphabetical order they are Arizona, California, North Dakota and South Dakota. Our members include universities, medical centers, utilities with nuclear power plants, other numerous industries including a biotech and pharmaceuticals, and a number of professional societies.

Earlier in the hearing, Senator, I thought I heard you indicate that the decisions that whether it was you or a witness, I'm not sure now, decisions were public policy decisions having to do with risk and how much risk is acceptable and so on. And I seem to sense either in your comments or those of some of the witnesses a division between science and public policy.

It's my belief and I would hope that the entire Senate would agree that good policy should be based on good science. I believe that the hearing today is significant for who was not invited. The hearing was not designed to get the best science on which the best policy can be based. For example, there was no one here from the U.S. Regulatory Commission, even though EPA was represented and even then, not by someone from the Office of Air and Radiation, but by someone from the CERCLA program who thinks that radiation and the worst chemicals are equivalent carcinogens. No nuclear physician was invited. I saw no panel with a nuclear physician, no one from the American College of Nuclear Physicians. No one from the health physics societies were invited and those are the experts in radiation and radiation protection. Not even anyone from the Radiologic Health Branch.

The Health Physics Society, that a professional group, health physicists are the ones who are the radiation safety officers in universities and industries. They have a position paper on radiation risk and perspective. And I think I can summarize it. It's not all that long, but I realize there's not much time available to me.

Below 10 rems, that 10,000 millirems, which includes occupational and environmental exposures risks of health effects are either too small to be observed or are non-existent. Ten rems. Now everything we've heard today is about 25 millirems. A millirem is a thousandth of a rem. We're comparing 25 millirems and 10,000 millirems. It's the position of the Health Physics Society and this is not a unique position among professionals in the field, that you cannot assign risks below ten rems, because they are either as they say, too small to be observed or are non-existent.

You've heard no one was invited from Moravek despite an entire panel discussion being devoted to that company, and new allegations brought forth today. Moravek does very important work in preparing radiolabeled compounds that are used in biomedical research that fight cancer and AIDS. The company is the recipient of numerous testimonials from the National Cancer Institute, Yale University, the University of California at San Diego, the Sloane-Kettering Memorial Cancer Institute in New York City, and others. And I wanted to reiterate that, The work that they do is very, very important. The work that they and other companies in the biotech field do is very, very important. And we have to keep that in mind.

We heard from Professor Qofman, Professor Gofman, well credentialed, number of degrees, he is also regarded as an extremist on the issues of the hazards of radiation. For example, a report some years ago by Harvard University entitled, "Is There A Large Risk of Radiation: A Critical Review of Pessimistic Claims." Professor Gofman plays a prominent role. He's one of the subjects of that Harvard University report.

I wrote a review of a recent book that he wrote where he claims that most cancer, most human cancers are due to medical x-rays and birth control pills and abortions. He is not mainstream science and the Senate needs the benefit of mainstream science.

He also says that only radiation dose is important and not the dose rate. It doesn't matter whether the dose is over, is acute or if it's over a period of time, this, again, is completely out of mainstream. You won't find agreement by the College of Nuclear Physicians or the Health Physics Society.

I want to conclude with a few comments in a paper published by Dr. Roslyn Yallow in the magazine, *The Scientist*. She's also well-credentialed. She's a physician. She has one credential that Dr. Gofman does not have. She's the winner of a Nobel Prize in medicine. The title of her paper is "Unwarranted Fear About the Effects of Radiation Leads to Bad Science Policy." And that's the gist of what I'm trying to get across in these few minutes. Unwarranted fear will lead to bad policy and we have heard here today a lot of unwarranted fear. She says the general public and even most scientists are not aware that exposure to ionizing radiation is only weakly carcinogenic, weakly carcinogenic. And she cites examples in her article, studies of the survivors of the Hiroshima/Nagasaki bombing and so on. She also addresses that issue of the duration of this exposure being important, not just overall dose. Again, she says, she cites more evidence that low-level radiation is only a weak carcinogen. And she cites the same number, 10 rems. The overwhelming conclusion of these studies and others that could be cited is that doses under 10 rems, that's 10,000 millirems, particularly when given at a low dose rate are not demonstrably carcinogenic.

Low-level radiation exposure is not nearly— SENATOR ROMERO: Sir, can you conclude your public comment, please.

DR. PASTERNAK: Well, then I'll conclude with the very last line in her report. "Radiation phobia that interferes not only with our ability to employ the safest means for generating electricity but even with our ability to make optimal use of radiation in medicine. Radiation phobia interferes with our use, our optimal use of radiation in medicine." Thank you.

SENATOR ROMERO: Thank you. Next. Anybody else who's going to speak. If you can come forward and then I'm going to cut it off. We need to, I need to leave for another engagement. Final two.

MR. DAVID SNIDER: I am David Snider. I'm with the Los Angeles County Sanitation District. Thank you for hearing my comments today, Senator. I first wanted to say that we're very supportive of anything that the state can do or any direction we can get from the state with regard to regulating these types of materials at the source. Certainly I agree with Chuck White from Waste Management that we don't want to see these materials necessarily showing up in our landfills without us knowing about it.

I wanted to respond a little bit to the comments made by Janice Lee. We are the operators of the Calabasas Landfill, And we do send our water quality data to the City of Calabasas when it's routinely collected, We have been working with them specifically on this issue, so I just didn't want you to get the wrong impression or anyone else for the record, to get the wrong impression with respect to those comments.

With respect to Rocketdyne, we've done extensive looking at their records as well as talking with them there and we have no reason to believe that any of that material came to the Calabasas Landfill that would have been some of this unregulated or decommissioned radioactivity or radioactive materials. And with respect to our groundwater quality, I think you might have recalled from the earlier testimony from the state board representative that while there were detections of radioactive components in our monitoring wells near Calabasas, they were also comparable with the background levels that were seen in that particular area, as well. This was a preliminary report. We just got it ourselves and there are some corrections that need to be

made to it as well, in particular with respect to the Calabasas Landfill, so. I just wanted to put that on the record.

One other thing that I heard earlier by Mr. Hirsch that I thought might be misconstrued as a generalization. That was the questions he was asking with respect to the percentage of landfills that might have detections of radioactivity in their background versus the number of water supply wells around the state and most landfills at least are, as I know, and I think most that I'm familiar with are not located within groundwater basins, so you're kind of comparing apples and oranges there. groundwater quality in the vicinity of landfills where it's not a public water supply is likely to have different constituents and a different makeup including radioactivity as well as other things. So, just a caution on that. Thank you.

SENATOR ROMERO: Thank you. Next. If you could identify yourself for the record.

MR. LARRY GRIMM: Yes, ma'am. Thank you, Senator, for listening to me. My name is Larry Grimm. I am a health physicist. I am the secretary of the local chapter of the Health Physics Society and it's, I'm one of those guys that are the frontline people out there protecting you, protecting the public. We really do care about the public. And I would urge you, please, please get as deeply involved in your legislation. We are finding that some of the legislation you are proposing is starting to hamstring it and make it difficult for us to protect the public. So it is important that you do get professional societies such as us involved in your legislation. Because we are finding it difficult. It is the consensus among our chapter that these bills are not going to do the trick that I think what you want to do and which is again, what we want. We want to protect the public. That's what we do everyday. Fm the guy that's

gonna get out there in the suit if there is a problem. I'm very concerned about it. I've got family and I very much so care and I would urge you to get us involved in your legislation. Get us at these meetings. Thank you. I would just like to make that point. Alright?

SENATOR ROMERO: Sure, And again, too, to comment on that legislation, that will be handled in Sacramento, You can send a letter or your can go to testify if you're in contact with our office. We'll let you know when the bills, any bills pertaining to this matter, are subject to the \_\_\_\_ policy review committee.

MR. GRIMM: Yes, and we'd like to ask if you could at least get us involved earlier on in devising the bill, so we can tell you and advise you whether or not these are going to hamstring those that need to protect the public. And some things are already in there will hamstring us, badly.

SENATOR ROMERO: Airight. Then I'd like to go ahead and conclude this hearing. We did run over time. I want to thank everybody for coming today. We intend to go forward with further hearings from the Select Committee taking a very close look at how we dispose of radioactive waste in California where it's going. I'm hoping to get some answers as we go forward. We'll look forward to a thorough, yet expeditious CEQA so that we can hopefully come out of this with a policy that will be as protective as possible of the public health of the men, women and children of California. having said this, I'd like to now adjourn this meeting. Thank you very much.

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