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Interim Hearing on Pollution Prevention Programs

Assembly Committee on Environmental Safety and Toxic Materials

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ASSEMBLY COMMITTEE ON ENVIRONMENTAL SAFETY AND TOXIC MATERIALS

INTERIM HEARING ON
POLLUTION PREVENTION PROGRAMS

October 23, 1991

Room 444, State Capitol
Sacramento, California



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CHAIRWOMAN TANNER: This is the Environmental Safety and Toxic Materials Committee. Today's hearing is about pollution prevention, a subject that has been most recently raised in the Legislature by SB 51, Senator Torres's bill. A measure that proposed to create an office of pollution prevention, supervised by the Secretary for Environmental Protection. As most of you know that proposal was controversial and ultimately caused the bill to become a two year bill. The controversy is not over the concept, rather its over what pollution prevention is, what it means, what kind of activities make up pollution prevention. It is also over the question of whether an office of pollution prevention should be created, and if so what should it do, and what kinds of regulatory powers should it have. The witnesses at this hearing have been requested to address these questions. I would like to request that everyone who testifies today take into account the factor that became important after this hearing was scheduled.

I am referring to the Committee of the Whole that is scheduled to begin at noon, and besides that there is going to be a Republican Caucus at 10 o'clock. What I would like for us to do, if there is any written testimony, is to make it available to the members who can't make it so they can receive that testimony.

So, I'm asking that you keep your remarks concise and to the point so that we can conclude in time for the Committee of the

Whole. That will be around 12 o'clock. I want to introduce the Vice-Chair of the committee, Jim Brulte. I think he will learn to like the committee. I hope so. Mickey Conroy is a new member of the committee, and you know Cathie Wright of course.

Our first witness is Mr. Paul Helliker, who is the assistant to the Secretary, of California (EPA) Environmental Protection Agency.

MR. PAUL HELLIKER: Madam chairwoman, members of the committee good morning, I am Paul Helliker, I am the assistant to the Secretary. Secretary Strock was unable to attend today, he's out of town. Given some of the question that you have posed for us I have brought along Mr. Jim Wells, with the Department of Pesticides and Mr. Jim Allen from the Department of Toxics Substance Control respectively so that they can answer your questions about some of the activities they have been involved in. So, understanding that time is short I will try to keep my remarks brief, I did want to highlight some of the action we have been working on. One of the founding principles of CalEPA is pollution prevention and this follows from Governor Wilson's goal of preventive government, so our goal in pollution prevention is to avoid the creation of pollution in the first place. That pretty much defines the basis of our definition of pollution prevention.

During the past legislative session CalEPA worked extensively with various legislatures and staff, you mention SB 51 and we worked with industry and environmental groups to put this into practice. We came pretty close to an agreement,

unfortunately there were some final points that we needed to work out, and the time ran out on us so we were unable to come to a final resolution of all the issues that pertain to pollution prevention so we were looking ...

CHAIRWOMAN TANNER: Yes!

ASSEMBLYWOMAN CATHIE WRIGHT: May I ask you a short question?

CHAIRWOMAN TANNER: Yes.

ASSEMBLYWOMAN WRIGHT: Are you going to tell us what you agreed to and what you disagreed on regarding the outstanding waste. Is that what your presentation is going to be on.

CHAIRWOMAN TANNER: Why don't we listen to the presentation and then we will ask the questions.

ASSEMBLYWOMAN WRIGHT: I want to make sure he covers that right up front.

CHAIRWOMAN TANNER: Okay.

MR. HELLIKER: I could get into that, I was going to try to answer some of the questions that were posed. From our point of view pollution prevention has many shades of meaning depending upon what realm you're in, for hazardous waste it means waste minimization, of the clean water program it often means source control, and for consumer products, pollution prevention often means precycling or trying to avoid creating packaging problems in the first place. But generally pollution prevention tends to go beyond the traditional realm of pollution control, that pollution control has been one of our most successful tools in the past and

it should continue to be one of our primary tools; but we also need to go beyond it and promote some cost effective technique to prevent pollution in the first place. So pollution prevention includes waste minimization, source control, recycling, input substitution, chemical use reduction, a whole variety of tools that are available. And, from our point of view, these fall under pollution prevention. Generally our goal is to reduce the risk to public health and the environment so that merely shifting pollutants from medium to the other does not meet that goal. So pollution prevention goes beyond that. We would like to continue working with the Legislature to create an office of pollution prevention. We think it's important to have an office within the Secretary's office because we need to establish a core group of people who can work to be change agents within CalEPA who are responsible for promoting and developing this new approach. We really view pollution prevention as a completely new paradigm and we think it's important to have a core group of people to push for that throughout all the wards and departments of CalEPA. Some of the activities this group would be involved in would be providing management consulting within CalEPA, developing accountability tools for the boards and departments to implement pollution prevention, evaluating and reporting on pollution prevention activities within CalEPA, and reviewing and assessing the cross media impacts of pollution prevention. While the boards and departments have well developed programs, we think it's important to have a cross media perspective so that there is more

integration. I mentioned case studies and information clearinghouse that is also an important function for an office of pollution of prevention, and then working with the boards and departments to develop more incentives for pollution prevention. We see this office working closely with the pollution prevention programs in the boards and departments both to develop and disseminate pollution prevention techniques and standards as well as to promote a cross media approach so that we ensure that waste reduction one medium does create a pollution problem for another. So the Office of Pollution Prevention would be mainly responsible for coordinating and facilitating the activities throughout CalEPA. And primary efforts will continue to be within the boards and departments. We believe that the operational capabilities that are there should continue to be run by those boards and departments. We don't think that there needs to be any kind of general technical expertise within CalEPA, per say. We think that there are already a good number of people within the boards and departments of CalEPA that have been working on pollution prevention and we don't propose to take them away from their programs since they are integrally related. In fact, we want to foster the approach of pollution prevention within the boards and departments of CalEPA by continuing to have that technical expertise there. So, as I said, the goal of these programs is to minimize the creation of pollutants. We talked about use reduction, that's on principal technique. I've got a couple of examples of what use reduction would mean. For example, Chevron

has changed their corrosion control agent from a chromium based agent to a phosphate based agent and that's an example of input substitution which has reduced dramatically the amount of chromium that comes out their discharge. The phosphate tends to get used up in the treatment process. So, we view that as a very successful example of pollution prevention. At the other end of the bay, IBM has substituted their chlorofluorocarbon cleaning agents with some of the ground water that they're pumping out of their contaminated site. And from our point of view, that's a very good example of how you can integrate some of our programs in a creative pollution prevention approach. So, these examples highlight the role that our agencies play in pollution prevention activities. You asked what should the focus of a pollution prevention program be? We think it's important both to have an office that sets goals and standards working within the industry to identify ways that pollution prevention techniques can be implemented as well as to communicate that via a technical information source as well. Both facilitating as well as more of a regulatory approach. So both of those function, industry assistance in establishing and monitoring compliance we think are complimentary aspects of a pollution prevention program. In CalEPA we already have a number of programs going on. The Integrated Waste Board has a complete program that mandates that they reduce the waste disposed in waste landfills by 25 percent by 1995 and 50 percent by the year 2000. From our point of view, that's an excellent example of a pollution prevention program,

especially because it will be relying on recycling and source reduction. The state water boards and the regional water boards have their toxicity reduction evaluation requirements which is another example of pollution prevention technique. And the Department of Pesticide Regulation has their biological control and integrated pest management programs. And the Air Resources Board also operates an extensive consumer products program in an attempt to try to change the inputs in the consumer products to reduce the releases of air pollutants. Probably the most comprehensive program that we've got going is in the Department of Toxic Substances Control with the SB 14 program, the Hazardous Waste Source and Management Review Act. We view that as a good model for pollution prevention throughout all the boards and departments. As we go forward with some legislative proposals, we'd like to look at that to be the foundation for any kind of further work on pollution prevention in CalEPA. So, in closing I'd like to say that pollution prevention represents a new way for us to do business. We've already begun to infuse this to our regulatory programs and we'd like to follow that up with the establishment of an Office of Pollution Prevention within CalEPA. So, I appreciate the opportunity to present this before the Committee and I'd be glad to answer questions before I go on with some further remarks.

CHAIRWOMAN TANNER: Is the language describing the Office of Pollution Prevention in SB 51 the language that you agree with?

MR. HELLIKER: I'm trying to remember exactly which version of SB 51 it was that we were finally faced with. We have worked with a number of proposals and I believe that the language in SB 51 right now that codifies the Office of Pollution Prevention - that particular part of the bill we are in agreement with. We are still concerned with some of the other provisions that have to do with how you implement pollution prevention and would still like to work out some agreements among all the various groups.

CHAIRWOMAN TANNER: Okay, but are you saying that mostly you are going to be data collectors, right? I mean you're going to coordinate and collect data and coordinate or what?

MR. HELLIKER: Within the Secretary's Office -- the Office of Pollution Prevention? That will be a primary function. We will also be hopefully implementing some of the operational aspects of the Pollution Prevention Act. We're getting into the planning and reporting on the part of industry. I believe that the Office of Pollution Prevention will get involved in that particularly from a multimedia point of view. A large part of that work will be carried out by the boards and departments. But, I think it's important to codify in a law the ability of the Office of Pollution Prevention and the boards and departments to be able to have industry develop plans for pollution prevention techniques, similar to SB 14, but expand it to other industry.

CHAIRWOMAN TANNER: SB 14 is a source reduction. So, you're not saying, "Do away with the use of certain chemicals." I

thought that was part of pollution prevention. But you're not -- that's not what you're emphasizing.

MR. HELLIKER: That shouldn't be the sole emphasis. That's obviously a very important tool.

CHAIRWOMAN TANNER: Okay, I personally am hesitant to be supportive of a new Office of Pollution Prevention because as you know we are doing these things hopefully among all of the agencies. And knowing what our fiscal problems are, and I have no idea what the Office of Pollution Prevention might cost. I'm extremely concerned about that, but we'll see. Ms. Wright?

ASSEMBLYWOMAN WRIGHT: I'm glad you made those statements, Sally, because you cannot just have a consultant or an Assistant to the Secretary, and be in charge of a pollution prevention program rather than requiring a whole office?

MR. HELLIKER: I think one of the responsibilities that the Legislature and the Governor has identified for the Office of Pollution Prevention is to report on pollution prevention activities. We'd like to...

ASSEMBLYWOMAN WRIGHT: Well, we could ask the Director to give us a report. We don't have to have a whole office to do that.

MR. HELLIKER: That may well be. There's, I think a lot of...

ASSEMBLYWOMAN WRIGHT: It seems to me that without a piece of legislation you're pretty much doing that right now.

MR. HELLIKER: In various places I think with an Office

of Pollution Prevention that we would be much better equipped to be able to carry out the goals of the pollution prevention program to be able to develop some of these techniques within the boards and departments and CalEPA that don't have very well defined pollution prevention activities.

ASSEMBLYWOMAN WRIGHT: I think there isn't an industry within the State of California that doesn't want to do that dealing with the fact that there is an emphasis on prevention. You don't feel that there isn't an office or a business in California that wouldn't be doing that now without having to have someone looking over their shoulder.

MR. HELLIKER: I think one of the principal assumptions of a Pollution Prevention Act and an Office of Pollution Prevention is that there are techniques and there is information out there available that is not widely disseminated, not widely dispersed. In fact I think Dr. Allen here would say that one of the best parts of their program is the industry assistance part where they are providing this information particularly to small businesses who don't have a lot of the resources that the larger companies do have to be able to keep up on these pollution prevention techniques. If you'd like I could have him make a few remarks about that.

ASSEMBLYWOMAN WRIGHT: One more question. We talked so much about recycling and what I hear is that while we are collecting all these items for recycling that there really isn't a market for them. What would your division then do in regards to

that? Would you be there to be of help to anyone who wanted to use recycling material?

MR. HELLIKER: Actually, one of the main goals of the Integrated Waste Management Board is to develop markets like that.

ASSEMBLYWOMAN WRIGHT: You have no control of boards because these three boards have just been brought into EPA. They're under the umbrella; but you have no control and no action nor do I see any legislation that's going to give the Secretary that ability to dictate or have final say on anything these boards are doing. The Air Quality Board, the Water Board, the Waste Management Board -- there has been nothing that I've seen where you're going to have any control or any final say on the decisions of those boards. All you've done is brought them under the umbrella of the EPA. So I mean I don't see how you're going to have any say over what they do.

MR. HELLIKER: Well obviously they'd have they're ongoing operational requirements and their mandates. However, I do think that we have had an impact on the operations of the boards today. If you take an example at the Dunsmuir's bill. There were a number of questions that came up about what is the best solution to the problem there and in that case, CalEPA basically came up with the conclusion that (inaudible) is the best solution based upon all of the different impacts on the different media. I think that is just one example of one of the ways that CalEPA has had an affect on the integration of the operations of these different boards and departments. And you highlighted

market development. I think that's one thing that the Integrate Waste Board has as one of their top priorities and to the extent that they do a good job, they need to translate that information to the other boards and departments in CalEPA. And the fact that we're all together at one table and...

ASSEMBLYWOMAN WRIGHT: Are you really?

MR. HELLIKER: Yeah, we are. It's amazing. We've had a number of meetings; we have monthly meetings with all of the chair people and the executive officers and just by the fact that we're discussing all of the various regulations, all the various programs that they've got going on, it's incredible to see the enlightenment on the part of people: "Well, we didn't even know about that." That has an impact on our programs. Maybe we could come together and come up with a solution that makes sense for both air and water and pesticides and water, whatever. So, I'd love to give you some of the transcripts from some of these meetings but it's been very illuminating.

ASSEMBLYWOMAN WRIGHT: Please don't give me anymore to read.

MR. HELLIKER: Okay.

ASSEMBLYWOMAN WRIGHT: Just one last question then. In regards to this integrated program that you see happening, where do you see it fall rather than regulation but more on incentive business?

MR. HELLIKER: Of pollution prevention?

ASSEMBLYWOMAN WRIGHT: You've talked a lot about

regulation but I haven't heard one word about incentive.

MR. HELLIKER: Well, I see it as a balance. One of the things that we've been successful at in the toxics program is providing information to particularly small businesses on ways that they can change their processes to save money by reducing the amount of waste that they generate.

ASSEMBLYWOMAN WRIGHT: But you don't give them any incentive because sometimes its costly to change over even thought in the long run it's going to be cost effective or save money. But I just want to know what the incentive is to have them change rather than what I've seen in the past, which is basically you mandate that there's a change that's going to be made because there's a product available or there's a technology available and then you turn around and you basically find them or bring charges against them if they don't, rather than the incentive for them to do it.

MR. HELLIKER: Well, we don't view pollution prevention as a regulatory program. In fact,...

ASSEMBLYWOMAN WRIGHT: But you did say regulatory and that's why I'm asking you -- in your presentation.

MR. HELLIKER: What I meant was that the planning part of it where we do require certain things from the industry, we aren't asking -- we are not setting the goals and standards for the industry, we're working with them. I think that's the way it works in a lot of the other states where they have pollution prevention acts. But it is a mandated program. They are required

to go in and evaluate their processes and the feedback that I've gotten from a number of companies environmental managers is that this has helped them immensely because for once it gives their corporate office the incentive to highlight the environmental aspect of the business. So for once they have the ability to go into their Vice-President and say, "We need money to be able to plan. We need money to be able to look at these processes".

ASSEMBLYWOMAN WRIGHT: I would just caution you. I don't mean to be nasty, but I would just caution you that when you're going through this whole process, just remember that it isn't necessarily the corporate office we have to deal with but rather the little individual operator who doesn't have a corporate office. He's all officers. When we start getting into these programs we make sure that we handle these little fellows with kid gloves because I don't want to see any small business out while we are laying out rules and regulations for corporations.

MR. HELLIKER: We're very sensitive to that too. On that issue, could I...

CHAIRWOMAN TANNER: I was just going to ask Dr. Allen -- in charge of the SB 14 program?

DR. JAMES ALLEN: Yes, among other pieces of the Waste Minimization Program.

CHAIRWOMAN TANNER: Describe how it's working.

DR. ALLEN: At this point it is probably a little too early to tell how -- well industry is really complying with SB 14. Their first plans and reports were due September of this

year. We don't have data yet that would indicate how well they are complying. But we have a lot of anecdotal evidence that certainly the larger companies, the ones that do have good corporate environmental staffs are doing really a very good job in identifying the various alternatives for source reduction and beginning to implement those. Again, we don't have really good data on this and frankly SB 14 is not a data collection bill. There's not an element in there that requires us to go out and we don't have the staffing to go out and survey broad spectrums, particularly of small businesses. But again, anecdotal evidence would indicate that the larger and medium size companies are taking it very very seriously. I think one of the reasons they are is that SB 14 does provide them with this rather unique opportunity in government to really do it their way. A key provision of SB 14 is that we, the Department, are not allowed to second guess them on which alternatives they actually choose for their source reduction approaches. They do that. The only penalties we can levy and they're not very severe actually by standards of other hazardous waste laws are, if they don't prepare the plans, if they're not complete, or if they don't implement them. Really, the major enforcement mechanism behind SB 14 is public disclosure. The public can get copies of these and they can hold them up and ask questions.

CHAIRWOMAN TANNER: We have worked closely together for many years. Through the years, our committee and I and the staff have asked for instance, what happens to those manifests? Those

manifests end up in a box piled somewhere in the Department of Health Services and they have for years. So that's a hell of a way to collect data. And that kind of thing, what it does -- I mean all of the things that we require of industry -- all of those things appear to be good for the environment but when we require that industry fill out form after form and manifests important. But we don't use that data and we don't have knowledge of what's on or in those manifests. And in the Dunsmuir situation, we were very late in discovering the seriousness of the chemical. I mean, we didn't jump right in there and get the information because we had it at our fingertips. It was at our fingertips; we didn't find it. Isn't that right? So, you know, that we're talking about a new office, and Office of Pollution Prevention. And everything that we've ever done here together has been to prevention kind of thing in one bill or another. But an Office of Pollution Prevention is talking about gathering a great deal of data. And what are we going to be doing with all that data that we gather? Are we really going to be on track with those things? It just seems like over and over again we create something new, whether it's a law, a regulation, an office of some kind. And then we don't use it.

DR. ALLEN: I guess, perhaps I could respond a little bit to that, Ms. Tanner. We, in the Department, feel that we have an extremely aggressive Waste Minimization Program. And I do have handouts here that I'll leave with the sergeant that describes fully our program. We have quite a number of things going and

also a care package here of many of the publications that we have available that I'll leave with the Committee. These are outreach. It's a program that's kind of been evolving for about the past five or six years. We have many different elements of it. SB 14 is kind of a centerpiece in terms of statutory mandate for the program. It really is, and I mention again, it's not a data collection kind of program. Basically its a program where the industry is really mandated to look at their own processes and to come up with their own solutions and we simply determine whether or not they completed their plans. But a key provision of SB 14 is for us, the Department, to look at a selection of those plans. We call in certain SIC codes. But we have called in the Aerospace Industry and the Petroleum Refining Industry for instance. Those plans are due in very soon. We'll start reviewing those. We'll take a look to see if they're complete. If they're not complete there may be some minor enforcement action. But the main focus of our review will be to extract information which will be useful to other companies in that same industry or other industries and get that information out to make it usable to other companies. That's the major focus for the Department's efforts under SB 14. And we've had a very far-reaching outreach program to industry to get them on board. And again, the message I get from industry, generally, is that they're pretty enthusiastic about this particular bill. They are trying to comply with it. They think it's good for them. I think Paul pointed out some of the advantages to that. We have in

addition to that the Incinerable Hazardous Waste Minimization Project which grew out of the capacity assurance planning effort of 1989 where we identified a major shortfall in incineration capacity in California. We essentially identified the top 53 generators of what we call incinerable hazardous waste and are working with them, again in a voluntary project, kind of a partnership project, offering them assistance, permit assistance, technical assistance, things of that nature to have them reduce their incinerable hazardous waste hopefully by 50 percent by the end of 1992 to help with this capacity shortfall. We have many other programs, and again, these are in your handouts, they range from grant programs where we do offer grants to companies for new technologies and new processes. We've been working very closely with local governments in helping them put together their multimedia pollution prevention programs in some cases through financial assistance to help those get on line. We have a California Waste Exchange that assists in recycling of many hazardous wastes. And you know, the list goes on and on. The bottom line thrust of our program in my division in the toxic program is basically industry assistance, industry outreach, facilitating these things, getting the information out. We've distributed just last year over a 100,000 fact sheets on the various kinds of minimization technologies that are available, or processes. We distributed twenty thousand reports that go into much more detail on how to do these things. Again, we're not data collection people. We're basically getting the word out. The one

thing I just wanted to come back to for just one second is that I personally, you know as a Division Director in our program see the need for some kind of a small coordinating function at the agency level because there's only so much we can do to spread into the multimedia range. We've kind of gone just about as far as we can within our statutory authority to help local agencies. We're trying to facilitate communication among state agencies in the multimedia aspects of pollution prevention. But we've kind of stretched our authority almost to the breaking point already in that area. And there probably is a need for a coordinating body at some higher level to assist in that.

CHAIRWOMAN TANNER: I know that you're doing a good job with SB 14 in implementing that. And the local communities are doing outstanding jobs in working with you folks. That's why I wonder why if it's necessary if it is not broken, why are we trying to fix it? We will see. We have other members who want to ask questions.

Mr. Conroy.

ASSEMBLYMAN MICKEY CONROY: I was just curious here -- I see (inaudible) this office at \$5,000 fine.

Excuse me. I see in the bill here a \$5,000 fine and I would just kind of be concerned, you know, I'm overrun with letters from small mom and pop cleaning establishments and their major complaint is that the state is driving them out of business and I would say to you where does this \$5,000 go. What do you use it for? How many \$5,000 bills are you going to pick up before you

close down an entire industry? Are you worried about mom and pop, the small businesses? I am because I can understand this board room meeting with large corporations and I can understand corporations being able to pass on to people those things that they need to comply with the mandate that you created because people in your field have sat there and talked to each other but I think, gentlemen, I said it yesterday and I am going to say it again today when people begin to make a joke of government the next step is revolution. It's happened every time in our history and I think that we are so over regulated now that you better take a hard look in creating more regulation. I think it is time that we back off a little bit and see how much money is available to pay for these offices because what you are asking for now is nice to have when you have a lot of money. We don't have any money and if people out there sent me up here mainly on one issue. We pay too many taxes and we have too much government in our back pocket.

How do you response to that?

MR. HELLIKER: Well, I think that you make a very good point and we are also very concerned about the small businesses. We have heard from the dry cleaning industry about the chloroethylene regulations and I think one of the things that we are looking to in the Office of Pollution Prevention to do is to provide a lot of assistance to small businesses. We have a good example in the Department of Toxic Substance Control where they actually have a lot of documents available for mom and pop operations who wouldn't have the information otherwise who might

be able to use to cut their costs. So, that from our point of view is one of the primary focuses of this program. We don't think that there is going to be a significant need out there among the large corporations for the technology assistance that we can provide. They are doing it.

I gave an example of Chevron already. Admittedly, that was in conjunction with some of the work that the regional board has been doing in San Francisco Bay. But we are not trying to increase the regulatory burden on small businesses through the Office of Pollution Prevention. If anything we are trying to create a way for them to save money. Become more competitive. Competitiveness is probably one of the most important things that we have on our table here at CalEPA is to make sure that we are not compromising that.

CHAIRWOMAN TANNER: Questions and answers shorter.

MR. HELLIKER: Okay.

CHAIRWOMAN TANNER: Is that, Mr. Conroy?

ASSEMBLYMAN CONROY: Yes.

CHAIRWOMAN TANNER: All right.

Mrs. Friedman.

Mr. Sher.

ASSEMBLYMAN BYRON SHER: You have given us a hand out of the Department's existing Waste Minimization and Pollution Prevention Programs and you have indicated that you in terms of coordination with other agencies you've reach this stretch breaking point in terms of what your authority is? What I would

like you to do is tell us specifically what legislation do you think is needed under this subject of Pollution Prevention Programs, if any?

DR. ALLEN: I guess I would probably not be the best person to respond to what legislation is needed.

Just to clarify in terms of stretching our authority. What we've been able to do is kind of leverage our program through grants from EPA and state moneys where available to essentially move from just strictly hazardous waste minimization into the multimedia field. We've done this primary through outreach to local governments, working with sewage districts through Environmental Health Departments and others ...

ASSEMBLYMAN SHER: Providing some suggestions about what they can do?

DR. ALLEN: Well, we have contracted with the local government commission, for instance, to prepare a detailed handouts -- manuals, if you will, to what those local governments can do in the area of multimedia pollution prevention.

We have provided training through an EPA grant to inspectors from sewer agencies, from air districts, from water programs ...

ASSEMBLYMAN SHER: What by enforcing existing law or what?

DR. ALLEN: No.

ASSEMBLYMAN SHER: Is this a voluntary basis?

DR. ALLEN: This would be the voluntary approach, sir.

This is what they could do to assist industry, particularly small quantity generators in terms of minimizing their waste. That has been the entire focus of our program.

ASSEMBLYMAN SHER: So, the program up to this point, has been a voluntary program to help those industries and companies that desire to minimize waste fine substitutes for ...

DR. ALLEN: Absolutely.

ASSEMBLYMAN SHER: But no mandatory other than this?

DR. ALLEN: Under SB 14. Right?

ASSEMBLYMAN SHER: SB 14 which requires the preparation of an inventory and audit of the materials that are used. Is that right?

DR. ALLEN: Yes, that is correct.

ASSEMBLYMAN SHER: But no requirement that it be reduced in any way?

DR. ALLEN: There is not a target requirement for not reduced and there's not -- we, again, cannot tell the company how they are to do it. They determine that themselves.

ASSEMBLYMAN SHER: What I am asking is whether any of this people sitting on this panel think that we need legislation in order to take the next step? If you want to answer that?

MR. HELLIKER: Well, I think that we need legislation to give us the ability to create an office, have -- it's just a small office that we are proposing. Admittedly we could probably do it ourselves but if you are asking us to do that you are looking at the office of prevention right here.

ASSEMBLYMAN SHER: And, this office will do what?

MR. HELLIKER: All of the items that I mentioned before.

ASSEMBLYMAN SHER: Oh, I'm sorry. I missed that.

Would you just in one sentence summarize what it is going to do? Is it more under the heading of voluntary activities on the part of generators of these waste?

MR. HELLIKER: That's one of the aspects of it. The legislation that's before us does have an additional component in it that talks about the requirement of plans for a broader spectrum of industries.

ASSEMBLYMAN SHER: What's in SB 51 is something that you are supporting?

MR. HELLIKER: We support the creation of the office. We believe that the plans are ...

CHAIRWOMAN TANNER: These are questions that he has been asked.

ASSEMBLYMAN SHER: Oh, I am sorry.

And the answer is that they do?

CHAIRWOMAN TANNER: More or less.

ASSEMBLYMAN SHER: More or less, which?

CHAIRWOMAN TANNER: Well, certain. It depends on what the bill, what date of the bill.

ASSEMBLYMAN SHER: Well, for example, at one stage there were these five industries that -- they were going to require them to produce waste -- do you support that?

MR. HELLIKER: We support. Yes. Basically we support

having a certain spectrum of industries that are required to do the plans. Exactly whether it would be five per year or whether we would say up front who is required to do so, we -- I don't think that we have any particular preference.

CHAIRWOMAN TANNER: A reduction by up of 50 percent by the year 2000.

MR. HELLIKER: That's the statewide goal. No. When we are talking about these plans, what we are talking about is a plan and a goal that would be created by each individual industry.

CHAIRWOMAN TANNER: Really.

I am sorry that you weren't here earlier because the ...

ASSEMBLYMAN SHER: Apparently the question wasn't answered.

So, it is a good thing that I am here now.

CHAIRWOMAN TANNER: He wasn't sure of what part of SB 51 they supported. I am going to ask Mr. Helliker to stay and perhaps we can go into that following the other witnesses testimony. Could you do that?

MR. HELLIKER: I would certainly be glad to. If pesticide is something that is important to be considered, I know it was one of the issues of contention in all of our discussions about SB 51. We had Mr. Wells here. I know that was one of the questions that you raised.

CHAIRWOMAN TANNER: Yes.

MR. HELLIKER: Did you want to have any information about that?

CHAIRWOMAN TANNER: Well, I would like you to stay. I simply want to give the other witnesses an opportunity to speak. The main thing is just exactly what Mr. Sher is saying. What do you want the Office of Pollution Prevention to do, what authority do they have?

I agree with you, Mr. Sher, but I do want to hear the other witnesses. We have to be out by noon. So.

MR. HELLIKER: Thank you very much.

CHAIRWOMAN TANNER: Thank you very much.

I'm going to ask Mr. Denny Beroiz to be our next witness because he has to catch a plane very soon.

He is the Environmental Manager of the B-2 Division of the Northrup Corporation.

MR. DENNY BEROIZ: Chairwoman Tanner and members of the Assembly Committee on Environmental Safety and Toxic Substances.

I do thank you for giving me this opportunity to pre-exempt the other speakers.

I'm a fourth generation Californian. I must return to Mr. Brulte's district to watch the birth of my sixth generation coming from my daughter.

So, I appreciate the opportunity to speak earlier.

What I have come here to do today is to assist you in anyway that I can to make a more effective pollution program within California. What I am going to present is not theoretical. What I am going to present are results that are not hypothetical.

I have run two pollution prevention offices. One for a company who is generating 11,000 tons of pollution annually and in four years reduced that by 95 percent. Now, with the Northrup Corporation I have been asked to do the same at the Division that builds the B-2 Bomber.

I am sure that some of you are familiar with the products that we do make. The B-2 Bomber is one, the 747, fuselages, the F-18 airplanes and a lot of electronic hardware.

Northrup believes that we are at the forefront of technology and therefore we should be at the forefront of prevention. Northrup maybe a little different than some of the companies that you talk to. We're not leaving California. We're staying. In that effort of staying we're going to have to do more for the environment than possibly what we have done in the past.

We are going to have to look further than regulation beyond that and our strategic plan includes things that you have not thought of. A copy of this presentation has been passed out. The actual charts from our internal to our company are in there.

For purpose of volume reduction, I have Xeroxed them on both sides. That is a cultural activity within our company, just to give you an indication of where we think to that level.

Northrup has demonstrated this voluntary program already by reducing hazardous waste by 50 percent in just two years. We have demonstrated by enrolling in the Toxic Substances Reduction Act through the 3350 program and under the 3350 program we have already reduced by 40 percent. We have already exceeded the first

step and which is still a year away. We believe very firmly by next year we will be completing the 50 percent reduction two or three years ahead of schedule.

Northrup will commence operations of a \$70 million investment. In the next two years we are going to have a new paint process facility to sustain our operations at our Hawthorne facility. That will reduce 500 pounds of air pollution every day.

We're also becoming the first recycler of haylawn in the United States. This is a program that was just initiated this month.

In addition to those activities we're going out and taking the skills that we have in our company in the areas of research and development and forming partnerships with organizations like the South Coast Air Quality Management District. Doing research directly for them.

Northrup operates its facilities in a centralized way. Each of the divisions determines what they are going to do after they have read their strategic plan. At the B-2 Division, an example of our success has been that we have a 60 percent reduction in hazardous waste in the last two years. We are 50 percent reduction in ozone depleting materials. We have a 70 percent reduction in trash in the last two and half years. We have a 12 percent reduction in mobile pollution in an area that we are concentrating on and that figure represents 280 tons of exhaust products from cars driving to work everyday.

I submit to you that all of these success stories are

not just a result of regulation. But they are a direct result of Northrup's commitment to a process of identifying that culture is the most important thing in establishing the environmental ethic that you are trying to thrive for here.

We know just as any other environmental-oriented industrial company that will sit here for you and witness that when you go out to do an environmental program of pollution prevention you have to recognize and focus on the culture of that company, the culture of the individual's coming there.

In America we made a mistake a long time ago. We allowed people to believe in one thing and that is that they could blow away, throw away, drain away, explain away and basically make go away all their pollution, all of their trash. We made one mistake. We didn't inform them that there was no place called away. That reality has come forth and it's something that we have got to recognize.

I submit to you that Americans whose garages, work shops and areas underneath their kitchen sink could not pass Health Safety and Environmental Regulation. Those same people who take many trash cans and bags out to their curb side every week; those same Americans are the same Americans we hire at Northrup. So, why is it so shocking or surprising that pollution is so prevalent and so resistance to reduction?

It's the same people. Quite often the very legislative or regulatory activities that you are involved in target progress but that progress cannot be obtained simply because the

inconsistent or inflexible requirements that then have to be passed down. When you try to peanut butter the world, peanut butter spread the world, it doesn't always get that individual treatment at the individual companies.

You have asked us to prepare SB 14 plans. You've asked us to prepare 2588 reports on toxic material releases. You've asked for Risk Management Prevention Plans. You have asked for business plans. You have asked for annual reports on every form of emission that we have on every media. And we have done that religiously for over a decade.

Currently, coordinating any of that -- it was pointed out earlier -- coordinating that is no one's job. That is a job potentially of the Pollution Prevention Office. The coordination is necessary.

One Northrup Division ended up writing 52 individual documents to support the SB 14 report. I hope that you understand that took somebody to do that. I hope that you understand that the people who wrote were out trying to make pollution go away until they had to write their report.

This is a Pollution Prevention Report, SB 14, from one facility.

It has been about a month old. It has been called and we appreciate the fact that it has been called -- no one has had the time to read it -- and we haven't even seen the results of this yet. But this report talks about already the 50 percent or 60 percent reduced from our company before the report was called.

You realize that the Toxics Hot Spot Law in 1987 hasn't even gone one cycle yet. We don't even know the impact of that. We're hearing about it but we don't know the actual impact.

Before we go on another track, I hope that we take some time to look and see what really works. Three-M, Dow, General Dynamics, Herman Miller Furniture Company, Northrup - we have all discovered that the most formidable barrier is culture. These environmental successes have a very low reliance on technology. I can tell you that by personal experience and it has an extremely high dependency on leadership.

While legislation does not strike at the heart of this cultural problem, it actually can disable the teacher industry. Yes, I know that industry is a role model. Industry is an indicator and industry is a behavioral-change agent. It may come as somewhat of a surprise for some. It might even be controversial.

But it is a concept that will succeed for the traditional regulatory approaches have failed. The solution to pollution is not more institution. We must change that mind set and take on another approach. American companies must stand up and supply that leadership.

Division is ours to give for a pollution-free future. When leadership supplied in a corporate setting, marketable things can occur.

See, Northrup relies on the innovation and creativity of people to make things like the invisible plans, and if at the same

time we rely on that same creativity and innovation to create a pollution-free future, you have to ask them to do it. You may be ready to ask what are the nitty gritty things that Northrup does or any of these other companies do? What do you do in the work place to get that done? Let's get down to the parts that we want to talk about. You may also be asking what effect will that have -- or how do I get that effect in California statewide?

Well, I am going to give it to you.

At Northrup pollution prevention started at the top. A letter from our CEO, Kent Cruso, said that we are going to have a 90 percent reduction in hazardous waste by 1996. The president of the B-2 Division for whom I worked for, had me transfer that material to every employee and there are 12,000 people at the place that I work.

My principal job then is to go out to the line workers, the office workers, the scientists and the other people. The people I call "entrepreneurs", the ones that are going to make the internal changes to our company, the champions that are going to make things happen. I have gone to them and have asked them, "would you please participate in this activity?" It is now part of our policy. What's interesting is the response I get is, "you mean, not to pollute is an important issue. I thought production is important. You mean Northrup wants us to do this." And, it is quickly followed by the comment, "But I have no idea how to do that." Our role then becomes one of teacher. The people quickly catch on and through their peer group activity on the floor, the

actual workers come up with solutions.

I will give you an example of this -- a gentleman from our Facilities Department voluntarily took on the task of reducing our trash. The results of 70 percent reduction are remarkable in anyone's field, it is remarkable to have that kind of results in two and half years. That was their commitment. There are trash cans every where around my office area putting in segregating trash. You think that would be unsightly. We don't believe so.

Sometimes the circumstances dictate the -- say, the volunteerism. One of the ladies in our Access Management Group sent a load of hazardous materials from ...

CHAIRWOMAN TANNER: You are going to have to try wind it up.

MR. BEROIZ: Okay -- sent a load over in our -- our people in our yard rejected it because they had been told not to accept anything that was totally justified as hazardous waste. That load went back to our access management people and they said that we don't know what to do with it. We are suppose to give it to you because you are suppose to take it away and because they refused to take it away they have now come up with a screening process for materials which are now being re-used within the facility. Before they ever got to the yard for disposal because we said, "no, we won't take it anymore."

That's a critical step but the most critical step is we thank them. We recognized them. We got them in the room with

the Vice President. We got them in the room with the President. Had breakfast with them. And we gave them the spider plant. You wouldn't think that would be much motivation except the evidence that I handed out to you that shows that it is. We expanded on the concept that the individual worker's involvement and we have now gone to chemical distribution centers, which I call the hazardous 7-11. What happens is that person orders the materials, stocks the material and distributes it to the other line workers and he or she is responsible for not only the record keeping of the distribution, the accumulation of all of that material -- when it is done it is hazardous waste.

We're going to judge that individual or those individuals on the basis of their progress. The total picture. They can manage the entire complex problem of ordering and distributing and hazardous waste. They are their own mini-market. We believe in powering people, in changing the ownership is a very important process and we have demonstrated that.

Next year, our corporation is going to take on the job of educating 140 small businesses in the same process that I've just described to you today. We are going to adopt them because they are our suppliers and as our suppliers Northrup believes very strongly in them and their continuation. That's good for us and that is good for them.

So, we are going to teach them how to do what we do.

Now, you can participate in that same activity. In each of your districts, there is sufficient data to go out and find the

20 percent of the companies that produce the 80 percent of pollution in your districts. If you were to call them into a room and discuss the matter with them, set forth the objectives, take your resources in promoting the idea, finding your individual champions and then selecting them for recognition you would accomplish very much of what I have spoken about today.

If the Governor and CalePA ...

CHAIRWOMAN TANNER: We are going to have to limit your testimony.

MR. BEROIZ: ...I would just like to summarize then.

CHAIRWOMAN TANNER: All right.

MR. BEROIZ: ... in just saying that the objective here is to have you recognize one thing is that the individual commitment of the worker, the employee is of utmost concern to us and critical to this process. I don't believe you can legislate that. I think that that's an encumbrance that you cannot overcome.

CHAIRWOMAN TANNER: It is very exciting of what you have done.

Are there questions?

Mrs. Friedman.

ASSEMBLYWOMAN BARBARA FRIEDMAN: Could you kind of summarize what the economic impact of your prevention programs has been?

MR. BEROIZ: In two years, we have saved over \$5 million.

ASSEMBLYWOMAN FRIEDMAN: Very impressive. Thank you.

CHAIRWOMAN TANNER: Mr. Sher.

MR. BEROIZ: That was against 3,000 tons of hazardous waste not being created annually.

ASSEMBLYMAN SHER: It seems to me the thrust of your testimony has been for companies like Northrup and others leave it to them on a voluntarily basis set these goals from the top down.

You know, that something may have happen recently -- so you don't need legislation but for decades that didn't work that way, did it? I mean we have all those sites out there -- polluted sites which were kind of the out fall of industrial activity. You know, even if we could stipulate that leaders like Northrup would do it, you know, will it be done across the board? You don't think that we need any legislative requirements and regulatory requirements to require companies that don't follow that kind of corporate standard to do their part?

MR. BEROIZ: I think what you need to do is recognize those who have and to promote that as the new ethic. You need to support those who have and hold them up as the model for the rest.

ASSEMBLYMAN SHER: And then everything else will fall into place?

MR. BEROIZ: Not in an idealistic setting, Mr. Sher. I cannot assert that.

ASSEMBLYMAN SHER: We have plenty of examples of polluted sites out there, Superfund sites and others ...

MR. BEROIZ: Because somebody made it easy to put it

there.

ASSEMBLYMAN SHER: Well, I mean, that was the corporate ethic at the time.

You know, production, they use to talk about production versus pollution prevention as a high priority. Well, for a long time production was the priority and, you know, I would like to believe universally now that pollution prevention is part of the corporate ethic but, I mean, every day we see examples of cases where pollution continues.

So, we need a combination, don't we, of voluntarily activity and then some kind of prod to make sure that people follow these minimum standards of pollution prevention.

MR. BEROIZ: I would submit to you that until you have tried a voluntary program with the same energy level as the regulatory one of the past, I don't think we have time for more regulation.

ASSEMBLYMAN SHER: The voluntary program is to give out certificates to the model companies and then everyone else will be shamed or have an incentive to get their certificate. Is that --

MR. BEROIZ: That is one program. One methodology that will bring some people on board.

CHAIRWOMAN TANNER: Thank you very much.

Are there any other questions?

Thank you very much.

Next witnesses. We will have two witnesses up here at the same time. Mr. Lenny Goldberg from CALPIRG, is he here? and,

Mr. Hillel Gray, National Environmental Law Center.

Gordon, would you like to come up at the same time?
Gordon Hart with the Sierra Club.

MR. GORDON HART: In the interest of time, Madam Chairwoman, so it brings us all up together here.

MR. LENNY GOLDBERG: Madam Chair and Members of the Committee. My name is Lenny Goldberg. Legislative Advocate for CALPIRG in Sacramento.

We have been extensively involved in negotiations and discussions on Senate Bill 51. What I want to do is I want to introduce Hillel Gray who is with the National Environmental Law Center. He has been very active in developing pollution prevention laws in Massachusetts and New Jersey and Oregon and have developed a national model.

I just want to kind of bring us up on the state of debate over Senate Bill 51 and ...

CHAIRWOMAN TANNER: Okay.

MR. GOLDBERG: Paul Helliher represented that there were some pretty strong agreement and I think that pollution prevention is a motherhood concept that there is agreement to. However, I think there is still a great deal of -- it couldn't be me -- a great deal of disagreement, I think, with regard to what a certain lack of precision in the definition of what the program should be and what direction it should take.

I think there is broad agreement that pollution prevention programs are not regulatory programs. That we have a

regulatory mechanism in place and that for pollution prevention we are trying to go well before the regulatory program. In the handout that I gave, if you would look at and this is, I think some of the key, try to make the key distinctions very quickly.

On page three where pollution prevention versus pollution control and we have a chart here as well. It gets to the heart of the debate because the notion of pollution prevention is that it is a paradyne shift. It is trying -- pollution prevention is trying to say that we need to look at the generation of waste the use of toxic chemicals prior to their release, that is to say we want to avoid generating waste in the first place and we want to avoid, or reduce the use of toxic chemicals to the maximum extent possible. Throughout the process there are problems with the use and problems with the release of toxic chemicals. This chart briefly, most of, twenty year of environmental policy has focused on waste management and pollution control - the back end of the process. The intent of pollution prevention is to get to the front end of the process. And the debate in SB 51 has focused primarily on what are the goals, what should be the goals of the program. The goals should be -- should they be release reduction which I think much of industry has said and to a certain extent CalEPA has said or should they really focus on goals that are related to in process goals that are identifiable by changes in the production process. That is not a regulatory program in the sense that the state in no way can come in and say, "How are you going to run your business?" But the

state in pollution prevention can set specific goals. This Committee has voted for legislation which would ask for the date that is here on the chart and let me just say that we have advocated that the goals of the program, of a pollution prevention program, with a broad set of means of implementation should be in two terms. One is reduction in the generation of chemical waste in the first place prior to treatment recycling and release. Treatment and recycling are legitimate methods of waste management and control. The paradigm shift here is attempting to seek, don't generate the waste in the first instance. Paul Helliker mentioned that that is the goal of a pollution prevention program, but in the debates over SB 51 there is a great deal of uncertainty as to what the goals should be and how it should be measured. So there -- in the new Federal Pollution Prevention Act there is a reporting requirement for those -- the three thirteen toxic release inventory reports which is defined as chemical waste or hazardous waste prior to treatment recycling and release before its up the stack, out the pipe, or carried to the land fill. And that point becomes a measurement of success goal. Can we reduce the generation of waste in the first place? Second goal which is much debated, certainly debated by the chemical industry and others who say this shall not be a goal in and of itself but it is only a means. But we really would argue that it should be a goal. This is to reduce the use of toxic chemicals to the maximum extent possible. There are many examples that industry uses that says we cannot possibly shift our product or shift our toxic inputs.

There are many thousands of examples, some of which were referred to earlier that in fact do involve specific programs to reduce use of toxic chemicals. The Santa Clara County Manufacturing Group's most recent report on how they have limited their emissions in the last four or five years refers to use reduction specifically as one of the techniques used. We believe that that should be a goal in the sense of getting industry to change their culture as we just heard, to look primary and specifically about reducing their use of toxic chemicals where appropriate and to make sure they have set goals for avoiding the generation of waste in the first place. And there are any issues that were discussed in SB 51: how do local communities, air district, water districts interact? What is the nature of an audit in plan? What should be required by the Pollution Prevention Office? I won't get into those all right now. But there are several key issues. One is that there must be measurable goals that require real data that in the planning process data that reports on the use of toxic chemicals and the generation of waste is basically available now. Goals should be set in those terms as mentioned. Secondly, there needs to be a multimedia effort which brings and involves in an interactive way, local communities who are highly concerned about toxic releases and the use and shipment of toxic chemicals, worker health and safety in their areas. This interactive process needs to allow for local participation in goal setting and perhaps that has a lot to do with changing the culture and environment of users and discharges. A way of integrating the SB 14 program in a

multimedia manner is what I think is the hardest part that the office is going to have to deal with. How do we -- if you remember, we had those Roberti bills, SB 1816 and SB 1817 which had source reduction for air toxics, source reduction for water toxics - two separate bills to fit with SB 14. That really is one of the major tasks to say, "Let's not shift our waste." Let's in a multimedia manner, not air going up the stack which is not as definable as hazardous waste truck to a land fill, but still we must avoid the generation of waste in the first place. We think that depending on which version you look at, SB 51 did provide a basis for that kind of flexible, interactive program with very specific goal setting, allowing therefore, industry to innovate very significantly within the context of those goals. It's not telling anybody what they must do, but it is saying, "Let us set some real goals for reducing the generation of waste, reducing the waste of toxic chemicals, changing the culture of the air districts, water district, POTW, local county authorities and state authorities in terms of building in a prospective on pollution prevention that is in the production process, is not reliant on waste management treatment recycling or release". And I'd like to introduce Hillel Gray to talk about some of the very similar programs that embody these principals in other states.

CHAIRWOMAN TANNER: And you are familiar with the Massachusetts program, I understand?

MR. HILLEL GRAY: That is correct. My name is Hillel Gray. I'm a policy analyst with the National Environmental Law

Center. I should tell you a little bit about our organization. Like many environmental organizations, we do what you might consider the traditional task in environmental law which deals with pollution control, pollution management. We bring a lot of lawsuits against companies that violate the Clean Water Act. We recently settled a \$700,000 case against a steel company in the Midwest. We're very familiar with pollution control and waste management activities and in addition we've been involved with the development, the negotiation and the implementation of pollution prevention laws throughout the country in a number of different states. We're now in discussions with Senate and House staff in the U.S. Congress. The way I got into this is actually fairly interesting. I was forced to sit down for about four months in weekly negotiations with a group of industry people, government people, Legislators, trying to (inaudible) a law in Massachusetts on pollution prevention. When I say pollution prevention, you know, obviously the term could mean anything you want. What it generally refers to in this context is prevention of industrial toxics. So we're not talking about agriculture, we're not talking about transportation and we're not talking about energy. And in that context I was in a very grueling situation sitting across the table from people from WR Grace, Digital, Polaroid, and small business people as well, trying to figure out, how can we make this new way of thinking in terms of pollution prevention work? What can we design for our statute? And I have never been the same. So, in some sense I want to thank you for being here. I

appreciate the opportunity. On the other hand, I am not sure entirely that I want to continue to be dragged into each state's negotiations and discussions in trying to come up with their form of implementing pollution prevention. We have been involved, I've been involved in the New Jersey, Colorado, Oregon, Vermont, Maine, a number of states have developed these laws and our staff has participated in this. But I think a lot of what we've learned time and time again is that people ask us, "Why are you pushing pollution prevention?" and "What is it about pollution prevention that matters?" I think it's unfortunate that the gentlemen from (inaudible) left. I think Lenny really sort of gave you a very good picture of a lot of what we're trying to talk about which is that we're trying to stimulate a different type of innovation - a different type of change in environmental protections. It is very different than the kinds of activity that is going on today. I want to also stress that this is a very limited approach. Prevention is not a panacea of all the world's problems. We are talking about a very narrow way of looking at it. Our organization continues to bring clean water lawsuits. We plan to do this until companies start to comply with that law. We expect the water districts and the air districts and so on, the agencies, Cal-OSHA and so on to do the work that they need to do to protect the environment, to protect workers and so on. What make pollution prevention different is that we're crossing what is a very delicate and important boundary between protecting the environment, protecting media and starting to look at how

companies and go about their business, make their product, deliver their services in a manner that is less harmful and creates less problems in terms of toxic chemicals. We're starting to think about how do you do your business. How do you design your products, choose your technologies, run your processes, buy your raw materials in a way that is different than you do that now to prevent pollution? In the course of trying to focus on production processes and products which you may think of as the source. You hear a lot of talk about source reduction. Source is productive activity. We started to look at two ways of evaluating source activity. One, you think of as source reduction. I know that California started to do some work on this through SB 14. And that is the reduction of waste before it is generated. I am sorry, before it is treated. In addition, and this particularly true of the user industries, it is important to think about use reduction. This would be reduction of the inputs as well. California has passed a law called, well, its the Hazardous Materials Use Reduction Institute, as you may be familiar with. It starts to lay out a new way of thinking about use reduction. In the negotiations I've been through in state after state, people say, "Why is it so important to focus on use as opposed to waste?" There are a couple of different reasons. One is that not all the risks associated with toxic chemicals have anything to do with the waste. When you ship a toxic chemical on the rails to a company that is using the materials and that train derails and causes a spill, that had nothing to do with the waste that was

going to be coming out of that company. When the company takes a chemical and puts it into a product like maybe the paneling on your desk or sometimes you see off-casting of toxics from this type of carpeting, that chemical in the consumer product or building materials has nothing to do with the waste. A company could be very waste efficient and still have the chemical being used in that product. The third type of problem associated with toxic chemicals that is not associated with the waste and is associated with use is the exposure of workers. You have a lot of people working on the electronics industry for instance, people are exposed on a daily basis to these chemicals. It doesn't matter how efficient the company is, how much waste they generate. It matters simply because they are using that chemical and it poses a type of problem. It poses a type of exposure and poses a risk of a plant accident. Toxics use reduction is a way of solving these problems. It is not the total solution. It is not an overnight solution. But it is a way of moving towards dealing with these types of problems that aren't associated with waste. In addition, toxics use reduction, by being the most fundamental form of pollution prevention help you avoid the problem of shifting. I know that the representative from CalEPA mentioned this problem of shifting between the media. You also have the potential of shifting between the chemicals that are leaving off the process as waste or leaving off the process as a product. You don't want to start having companies reduce their waste by putting their chemicals in a product. The third important aspect of

toxics use reduction is really a psychological one and one of the things that impresses me the most and that I try to get up here are people like the gentlemen from Northrup or in Massachusetts where its really been Polaroid where the people from Polaroid will talk about how they've really changed the entire dynamic of their company by setting up a toxics use reduction program. Of course our organization happens to believe a lot in information and data collection and when the gentlemen from Polaroid starts his talk he always starts a quote from Kelvin saying that basically if it can't be quantified then it doesn't exist. Something like this. Basically what they set up in their company is an inventory system of their toxics use. They start evaluating their managers, among other things, on the basis of what they're doing about that toxics use. Clearly, I don't want to speak for Northrup exactly, but clearly if they have all these numbers, they have these goals, they are obviously keeping track internally of the toxic use reduction that they are doing. When you ask an engineer to solve a problem, you need to set the right parameters for him. You need to give him the right hypothesis. The same thing with somebody in science; the same thing with somebody in R & D. And if you tell someone, We want you to "reduce waste", that's a very good goal for somebody and they can work on that. If you tell someone, "We also want you to reduce toxics use", that's a somewhat kind of different problem to solve. Solutions will vary very much from industry to industry. They will very much depend on the types of chemicals they use and the types of processes they are involved

with. The question I guess is, once you start to narrow down what it is that we're focused on, its this use reduction aspect and this multimedia source reduction, then what you have to do is knock heads at a table and design a program that is appropriate to your state. And what most of the states have focused on so far are the following elements: first of all, is a definitional structure in their statutes that clearly demarcates this new way of thinking. (Inaudible) up a program that is around production processes and products that you might call the source or you might call the production unit. And they try in some way, and this I think speaks to your question of Office of Pollution Prevention. They find some ways to set up a group of people who really understand this and who are not as influenced, especially in government agencies, by all the institutions associated with waste management and pollution control. So you do need a coterie of professionals who are able to think about this just like you have a coterie of people at a lot of these companies thinking about pollution prevention. You need a coterie within government who really understand production processes and products. It's a whole different set of questions to ask. The second thing you need is you do need information. You do need some form of public reporting. And in Massachusetts, in New Jersey, in Oregon and in state and state, we have been able to work out with companies during negotiations, during legislative discussion and so on, a way of making this reporting available to the public. There is basically two major aspects to the reporting. One is facility

wide information. How much of your chemicals are coming into your facility? How much is leaving as waste? How much is leaving in products? And then the second question is: what is happening with your individual production processes? If you are doing metal working, what is happening with your metal working? If you are doing plastics fabrication, and so on. So it is important to understand from a public prospective, from a government prospective and certainly within a company, to be able to evaluate each type of production process to be able to measure pollution prevention, to be able to focus on the particular processes that are using toxic chemicals, and to start to begin to compare companies - to compare companies to themselves year after year and to compare a cross of companies in the cross industries. SB 51 has a program for facility planning. That is an element that is in a lot of these states' laws. The advantage of planning is that when you don't have a letter from your corporate executive saying that we want you to start thinking this way, the advantage of planning is it takes them through a systematic review of what is their toxics use, how much waste do they generate. What are the cost associated with that? Obviously they are -- if you ever stop to think about all these regulations that we impose on people, there is a lot of costs and liabilities associated with using these chemicals as well as just the raw material costs. And thirdly in this planning you have to think about what are the alternatives and to really start thinking about those alternatives. Another element of these state laws which I think

is so crucial and I think is starting to be recognized as a very important dynamic is numerical goal setting around toxics use and around multimedia source reduction. And clearly you've heard from one representative of a company talking about how goal setting is important to their company. You can imagine the kind of dynamic that this plays out with the public. One of the things that has really grabbed the public's attention and has excited environmentalists is this TRI reporting, this Toxic Release Inventory that you see in the Community Right to Know Act. And people are very excited about that because you have informational releases and the public starts to become understanding that and aware of that. You have companies responding all over the place to setting release goals. The goal mechanism works if you have not just the data sitting in some file cabinet but some way to make the data accessible. Steam line it, make it clear to the public, make it communicated in a sensible way and I wouldn't necessarily recommend that you sit down with a lot of (inaudible) specialists to design that form. I would sit down with some people at Northrup and so on and try to come up with a form just like we did in Massachusetts or New Jersey has a form you could borrow and so on. I guess the other thing I wanted to say about goal setting is that a lot of this relates to renovation, a lot of this relates to change and the kind of cultural change that we're talking about is to not be satisfied with the status quo and to keep asking a company, "Well, what have you done for me lately?" Okay? And the difference is that when you start dealing with

production processes, you start dealing with the kinds of products the company is making, you can't use the same regulatory tools that we've been able to use over recycling, over incinerators, over trash disposal and so on. You need to use a different type of regulatory mechanism. And what we have started to develop are these kinds of regulatory mechanisms. I know in Massachusetts there is a plan, but not for five more years, to set up performance standards. The performance standards are going to be very limited, they are going to apply to maybe five different industries. Now the interesting thing about that is, of course, I don't know what the state will be like in five years, we've had changes in the Administration and so on, but the interesting thing is the industry groups are very aware that these performance standards could be set against them so that it's an incentive to them to do enough reduction in their use of chemicals so that they don't have this kind of standard being applied to them. I think that we will be able to selectively use some kind of performance standard on toxic use reduction and on source reduction. No state is doing that currently, but there has been a lot of thinking involved in trying to make that work. And a lot of that depends of course, on getting the information out there on what kind of production processes are used in chemicals, what kind of alternatives there are available and to get more of the companies thinking a very progressive and stimulated way about how to change their products and processes. I mentioned before it's important to establish a coterie of professionals within the state. Some of

the states have done things such as set up an institute the way you have here and fund that for educational programs. People have also set up a lot of these technical systems programs the way you have here centered around SB 14 and again trying to clarify that that group should focus on toxics use and source reduction. And the third thing you start seeing in a lot of states is multimedia cross training where you'll have inspectors going through a small business instead of sending them the (inaudible) inspector one week and the air inspector the next month, and so on. You start bringing in people who can identify a production process, look at what is happening from that process, recommend changes not only in the pollution control needs, but also in how they might start thinking about use reduction and source reduction. There are a few other elements in state laws. I suspect my time is running out. We basically have produced a report here reviewing a lot of these state laws. Since the time the report was written, New Jersey passed a Pollution Prevention Act focusing on toxics use and source reduction. Vermont recently -- Vermont was in a situation I think similar to California where it had a source reduction law and it recently added a toxics use reduction component to that law.

CHAIRWOMAN TANNER: Is that report available to the Committee?

MR. GRAY: This report is available to the Committee and if you'd like, we can provide more copies. You often hear a lot of anecdotes in this type of work about how companies have saved

money. You know, like, "We've reduced this chemical", "We've stopped using this cleaning agent", and "It's just saved us money", and we have examples of not only companies saving money, but they have completely gotten themselves out of environmental regulation. I can't tell you more than any money, that seems to make them very happy. The thing that we start thinking about as we start watching toxics use reduction happen in some of these states is more of the almost cultural changes that are happening within organization like Polaroid, like Northrup and so on, from going through some of these measure such as reporting, such as planning, such as numerical goal setting, and such as some of this concern around performance standards or future regulatory actions. And I think what we're seeing is that what's happening with toxics use reduction is very similar to what a lot of the theorists of business competition are starting to think about and a lot of that is what is -- what do you need to have a company be innovative? You need to be able to measure. You need to be able to measure efficiency and communicate in some clear way throughout the organization. You need to be able to ask the right questions. You need to be careful not to send your engineers wandering off and answering the wrong kind of questions. That is why it is so important to start moving away from the focus on the releases and wastes and start to move again to the front of the process. And finally, you do need to start thinking about how do you foster competition. Now, I know -- you know I'm not supposed to agree with the previous industry panelist when I come and testify at

hearings. But this certificate thing that he is talking about is not all that odd of an idea. I mean what you want to start thinking about is, "How do you compare companies?" How do you start setting up a situation where the plastics manufacturers can compare to plastic manufacturers, the aspirin makers to the aspirin makers, the rug makers, and so on? You want to start setting up a situation with your facility wide data and when with your production process data where you can start getting that dynamic. It will -- you can give your certificates to the best companies, but it also allows you to figure out where the laggards are and where the companies are not innovating, where they're satisfied with where they are today. In conclusion, I think the kind of thing we're talking about in terms of use reductions and multimedia source reduction is something that is limited in scope. It's not a panacea. It doesn't necessarily apply to all industries. For instance, the chemical industries' relationship to use reduction is very different than a user industry, in electronics, in textiles, in paper mills, in communication industry, in metal working, they use toxic chemicals. They are not producers of the chemical. There is a subtle difference and you know, we could talk about this if you care to, but I can assure you that in the states where this law has passed, all the industries have endorsed this legislation. In Massachusetts we did an all night session and it was one of the most exciting things I ever did in my life as we tried to figure out, "How do you design a program?" "How you you design some legislation

around this?" The entire night we had an attorney from the chemical manufacturer's association on the speaker phone from Washington D.C. So, a lot of companies have been involved in this kind of program. It is a limited kind of program. It is compatible with innovation. It is compatible with competitiveness and it deals with the core problems associated with toxics use. The environmental problems -- I know just my message to traditional environmentalists is that it deal with environmental problems and it also deals with worker exposure, it deals with consumer products and the disposal of those products, the exposure of the public to those products with the kind of accidents and unexpected occurrences that you have with toxic chemicals as well. It is a new way of thinking. It does require some new tools. California is starting to develop those tools in some legislation. Other states have started to look at reporting and planning and performance standards and so on. I guess the -- just the message that I would have is that this is a new paradigm, a new way of thinking about regulation. It is very different than, I think legislators and environmentalists and so on, have had on this. It does open a bit of a Pandora's box for you. You start getting a different type of set of questions around this. And sometimes the environmentalists and a lot of the state groups that I come to visit get very frustrated. "How do we deal with all these questions about a certain chemical and a type of plastic?" and so on. What I'm trying to -- I'll just wrap up -- what I'm trying to say to people in a lot of the work that we're doing as we talk to

these companies is: encourage these question, encourage a lot of the thinking that is going on because what you're starting to hear is a lot of talk about processes and product change that you don't hear about in traditional environmental legislation. Thank you very much.

CHAIRWOMAN TANNER: Thank you. Mr. Hart?

MR. HART: Madam Chair and Members, Gordon Hart representing Sierra Club of California. After that extremely articulate and knowledgeable exposition of the topic, I will be very, very brief. He made the points that I was going to make and made them much better than I would've made them. Let me just bring us back to California and to SB 51 and to CalEPA because I know that some of the more pedestrian concerns are on a lot of our minds. And as Members know, a lot of us were quite ambivalent about CalEPA in the truest sense of the term, with many, many mixed feelings about it. If CalEPA is to serve a purpose and we have it and therefore it should, we all committed to making it serve a purpose. The kind of thing that it can do is to integrate, is to coordinate, is to provide for a rational way of making sense between the different Board's programs and having a multimedia approach and having a more efficient approach. That is how it was sold and I will take Governor Wilson and Secretary Strock on his word, and I think you all should too, that -- Yes, Madam Chair?

CHAIRWOMAN TANNER: No, go ahead -- and finish -- and then I'll respond.

MR. HART: Okay. We believe that on -- the language in SB 51 that moved out of this Committee or some variant thereof, and we acknowledge that there were a lot of negotiations that will happen and are committed to do that, was designed towards making CalEPA do what it can do best, and that is, have a focused, targeted program, designed to integrate and coordinate all the activities of Department of Toxics, Department of Outside Regulation, Air Board, Water Board, and to some extent the Waste Board. It was not designed to be another paper shuffling effort. It did not have an SB 14 type of broad regulatory requirement. It had, as Mr. Sher indicated, a five industry targeted focus. And it was designed to create a very small unit of people to work with a much larger -- our people ended up in the departments to coordinate and educate them, gather information and figure out a way to work with industries to create more of the points of light, I kept thinking about a 1000 Points of Light listening to Beroiz, to create more Northrups because there just aren't that many Northrups out there and you need more and I think that's the best way to use CalEPA and that's the intent of SB 71 and you had a question, Madam Chair.

CHAIRWOMAN TANNER: I think that many of us, myself for instance, felt very ambivalent about CalEPA, as well. The reason I finally did support the CalEPA was so that we could have the multimedia approach. So with CalEPA we would have the multimedia approach. If we don't have that with CalEPA, then what was the purpose of CalEPA, after all? So, we have that. We agreed. The

Legislature agreed to what the Governor wanted, the CalEPA assuming that we would have coordination of all of the agencies because we have a Secretary now and we are expecting the multimedia approach.

Now, we are hearing from the CalEPA that really, an Office of Pollution Prevention is necessary. Well, we already -- we need coordination. And, I thought and I wasn't just crazy about CalEPA idea, but I thought, well, perhaps we would have coordination through CalEPA.

MR. HART: Let me briefly respond, because, I know that Lenny wants to -- are you done?

CHAIRWOMAN TANNER: Yes. I am done. But you get my question. I thought that is what we had when we said Okay, there will be a CalEPA. We take it one step further because CalEPA can't do that job.

MR. HART: We are probably just mixing words but I don't quite agree with the interpretation. I think that there was a shell created in essence that we all knew it was going to be filled with some things. I think that one of the things, this was the role and the reorganization concept, and I think that one of the things that a lot of us assumed, particularly, with the State of the State Prevention Message from Governor Wilson and some of the language about prevention in the intent language was that the new agency shell would be created, would have this coordinating prevention type focus. Whether it is in any individual office or whether or not it's just activities, I don't know.

CHAIRWOMAN TANNER: Because that means you're going to have to fill it with many, many, many more things and we've got enough as far as I'm concerned already. I thought it was an umbrella rather than a shell.

MR. HART: I like that better. I'll buy that. Lenny wanted to...

MR. GOLDBERG: Referring back to last year's bills on which I worked extensively, by Roberti: SB 1816 and 1817 which had to do with air and water source reduction pollution prevention -- part of a little bit of ambivalence was knowing that there probably would be some reorganization post-Deukmejian era of environmental programs and that the multimedia pollution prevention program was prime on the list to add to the kit bag of tools that already existed. We do not have those tools. We have an SB 14 program. We do not really have the ability or even the model yet in terms of coordinating agencies with regard to how pollution prevention should work in a multimedia context. So in that sense, I think it was a good thing, probably that those bills either didn't move, or one was vetoed -- well not necessarily a good thing because it would've had the basis of a program, but we're coming back now this year and saying in a focused, priority way, you know not necessarily broad but very specific and focused -- we do need to give legislative authority and define really clearly -- and this is I think where there is some disagreement -- a clear definition of what pollution prevention means in the terms that we've discussed. I think you can have a

very big office that can do a lot of nice things. They could probably do that anyway. So, what we're arguing is that we need legislation to go multimedia and to require that multimedia planning, and to really set what the goals should be. And so we agree with the Department to the extent of creating that coordinating mechanism. We probably have differences as to really what the focus that it should take.

CHAIRWOMAN TANNER: Mr. Sher and then Mr. Lempert...

ASSEMBLYMAN SHER: I'm not totally clear on your views about what is needed. It seems to me that Mr. Goldberg and the other witness have slipped back and forth between -- on this toxic use and source reduction between the terms goals and performance standards. I mean goals -- setting goals -- that's totally voluntary I would say. Whoever does it would say that our goals is to get reductions in these kinds of chemical uses by certain dates. Then there was the suggestion of performance standard. To me that means mandates. You give a standard, you have to -- you let the industry or the company decide how they're going to meet those standards. But that is a mandate. What is it that you're talking about? Are you talking about setting goals and trying to help companies and industries achieve those goals voluntary or are you talking about setting mandates or standards to reduce the use of certain kinds of chemicals by certain dates by a certain amount of percentage?

MR. GRAY: The best model we've seen in this state so far is that you'd have a broad program of reporting and company...

ASSEMBLYMAN SHER: Reporting use?

MR. GRAY: Yes, reporting use...

ASSEMBLYMAN SHER: And then you set a goal for reduction?

MR. GRAY: Yes.

ASSEMBLYMAN SHER: ..for that companies. And then you try to help them achieve them by...

MR. GRAY: Can I just...

ASSEMBLYMAN SHER: But I want to be clear...

MR. GRAY: Yeah, let me try to be -- I think it's also -- I have written testimony, I don't know if you've received a copy of that. But we're saying broad reporting of toxics use and source waste prior to treatment by facilities and by production processes -- you have goal setting to reflect those. And then I would recommend...

ASSEMBLYMAN SHER: Wait a minute -- that -- you've just lost me. Goal setting to reflect those? Now you've got the report with this data from specific companies saying how much chemicals they use, how much waste is generated and now the governmental agency sets a goal...

MR. GRAY: No, no -- I'm saying the company -- the company -- for instance, Polaroid would say, "We make batteries and we make film chemicals." So for those two processes this is how much we've used and this is how much we've wasted of certain chemicals in those two processes and here are our goals for five years down the line on where we want to be. And then in terms of

mandating reductions -- okay...

ASSEMBLYMAN SHER: Okay, so the first step then is purely a reporting requirement mandated on the companies, including a goal for reduction, correct?

MR. GRAY: Yes, we think that's a crucial dynamic. And then on a selective basis, what we recommend is you establish a way of mandating required reductions. You could base that in terms of mandating use reductions or mandating source waste reduction. And you would do that on a...

ASSEMBLYMAN SHER: So, in this law you're suggesting or supporting, the first part of it would be a requirement of reporting the use and the goals that the company itself is setting for reduction of that use. Right? The second part of this law and it would be enacted at the same time, would be a mandate. Is this what you're suggesting?

MR. GRAY: An authority for the state to set standards some time in the future on a selective basis.

ASSEMBLYMAN SHER: By a new law?

MR. GRAY: No, by regulation.

ASSEMBLYMAN SHER: In other words, giving some regulatory body, in this law that you're passing, the power to set a reduction which would be mandated subject to sanction or penalties if the company doesn't achieve it by a certain date. We should give that power to an administrative body; is that what you're suggesting?

MR. GRAY: That's correct. For instance, in

Massachusetts they have a law that says beginning in 1995 you may do this for, I think, five types of industrial processes. So it's done on a very limited basis. It's not the same as across the board...

ASSEMBLYMAN SHER: Does the law specify which five or does it give that authority to the regulatory...

MR. GRAY: No. It leaves -- see, one of the most important things is to leave, I think -- I mean I understand that Mr. Helliker mentioned that maybe you'd want to identify those companies in the statute...

ASSEMBLYMAN SHER: I'm not asking what he wants. I'm asking what you want.

MR. GRAY: But what I would recommend is that you don't identify the companies and that you just say in five years we're going to look at what's happening to toxics use reduction in this state and source reduction in the state...

ASSEMBLYMAN SHER: Who is going to look -- this regulatory body?

MR. GRAY: The state agency would look at what's happening with use and source reduction...

ASSEMBLYMAN SHER: No further legislation would be needed because you would have in the initial legislation, given the power to this regulatory body to impose enforceable reduction mandates on industries or use of particular kinds of chemicals by companies in an industry. Is that right?

MR. GRAY: I think that is an appropriate tool...

ASSEMBLYMAN SHER: I'm not debating this with you. I just think you've been very fuzzy in your testimony, if I may say with all due respect, about what it is. Because you keep using this terminology. You say goals and you say performance standards. So I'm just trying to be clear on what you think is the model for legislation that you are urging upon this Committee and through it, the California Legislature to adopt by legislation. Have I got it right now?

MR. GRAY: I believe so and I would be glad to provide you with specific statutory language from either -- just for California or just based on other states' language.

ASSEMBLYMAN SHER: That would be helpful.

CHAIRWOMAN TANNER: Mr. Lempert?

ASSEMBLYMAN TED LEMPERT: I just had a general question for Mr. Gray based on your experience working in other states. Now that you're talking about a new approach to regulation with the source and use reduction, how do you deal with the problem that we've often had in regulation and that is working with the largest companies and setting up the framework that works for the largest companies and having the effect of making very -- undesirable situation worse than possible often for the smaller businesses to survive under that regulatory framework and if there's some things that you've worked on through this program with other states that can help avoid that.

MR. GRAY: I think it's very important to bring small business people into this process from the very beginning so that

when you start designing your programs, your reporting, your planning requirements and so on, they have an opportunity to say what they can live with. And if our state small business representatives have been involved from the beginning they would have asked for instance to have -- that small businesses be targeted as a priority for technical assistance programs and for compliance assistance programs. The thing to remember though is that small businesses do tend to be smaller so they tend to have fewer production processes, few types of products to work with and to do reporting and planning around. The other thing that we...

CHAIRWOMAN TANNER: That isn't necessarily so because some small businesses use very toxic materials and so their plans would be necessary.

MR. GRAY: No, they would be plans, but for instance, we've found that companies -- we have some very large facilities in our state like AT&T and Texas Instruments -- they tend to have a lot more different types of production activities going on within their facilities. The other point I wanted to make in terms of small business was -- it will come back to me.

CHAIRWOMAN TANNER: Okay, thank you very much. Any more question. Thank you. Thank you very much. Our next witness will be Mr. Gary Stephany who is the Deputy Director for Environmental Services, San Diego County.

MR. GARY STEPHANY: Thank you, Assemblywoman Tanner. I guess I'm more of the rubber meets the road, listening to all this testimony this morning. We regulate over 7,000 hazardous

materials businesses in San Diego County. Out of those 7,000 there are probably only 50 that fall under the category of the Northrups. So the rest of them I guess you could classify as small businesses and such. I think if you talk to anybody in the state of California or even in the national EPA and not just CalEPA, you'll find that San Diego County's Environmental Health Program and particularly the Division of Hazardous Materials -- excuse me, I've had a cold for about a week. I think you've probably heard that we have a very successful program in San Diego. I think one of the reasons that we have that successful is that we're very comprehensive. We do tanks, we do hazardous waste generators, we do disclosure, we do emergency response, just about anything that pertains to hazardous materials we do. One of the problems we have in dealing with hazardous materials is the state and because it is spread out between an Air Board, a Water Board, and a Solid Waste Board now. If we had a central pivotal point like we do in San Diego, we would have a much better program that we could deal with at the local level. One of the problems that we're dealing with in pollution prevention, and I also have written testimony here and a lot of it goes into what we think pollution prevention is, but since it's been stated so much this morning already, I won't repeat that. But in 1987 we decided that we needed a pollution prevention at the local level as well and we started working with state. As Dr. Allen stated, we were one of the counties that was a recipient of some of the grants that they provided and we actually have had several workshops where we've

had pollution prevention folders and workbooks for our small industries.

CHAIRWOMAN TANNER: Can you leave that with the Committee?

MR. STEPHANY: Yes, I'll leave testimony and several of these books. One of the things that we found in dealing with industry day in and day out is that somewhere in the last ten years your body up here has passed probably somewhere around 1,500 new laws and regulations. Trying to cope with all these regulations at the regulatory level, such as ours, in dealing with businesses who cannot hire engineers and chemical engineers and industrial hygienists and such, it becomes imperative that we at the local level, when we make yearly inspections that we have some understanding of what is really going on. If anything comes out of this SB 51 and CalEPA, I'm here to desperately plead with you that we need the coordination here at the top so that when we go in and help somebody with an air pollution problem it doesn't become a problem for one of the other agencies and such. We can do that at the local level only if we get the coordination through the state. Therefore, we would highly encourage you to go with the pollution prevention program here at the state level for no other reason than to coordinate. That's one of the things we found missing in SB 51 as it was written before. It talks about a lot of goals and objectives but it doesn't really mandate any coordination at the state level, and that's where we need it. With that, I'll just keep it brief and answer any questions you

may have.

CHAIRWOMAN TANNER: Mr. Sher?

ASSEMBLYMAN SHER: Could you with the help of a San Diego County Attorney prepare a statutory proposal for providing the state coordination which you think is necessary and submit it to us?

MR. STEPHANY: I don't know if the -- Assemblyman Sher, I'm not sure if the attorney would help, but I am sure that -- I think that's one of the problems here is there's too many attorneys. And I apologize if you're an attorney.

ASSEMBLYMAN SHER: I've seen statutes drafted by non-attorneys. Sometimes they leave something to be desired.

MR. STEPHANY: But the -- but we really need some...

ASSEMBLYMAN SHER: What I'm suggesting is that you're there on the delivery end. You've got obviously an active pollution prevention program where you've worked with (inaudible) again in terms of source or toxic use reduction or toxic materials reduction that is more or less on a voluntary basis. You don't go in there and tell them they've got to cut in half the TCA or whatever it is they're using. But, if you, based on your experience in trying to get this kind of reduction and this multimedia problem, if you could -- you know or other local governments could submit some kind of draft program or draft change in statute that would provide the kind of coordination you think is necessary at the state level it would be a good starting point from my thinking anyway and be useful.

MR. STEPHANY: Assemblyman Sher, I'm sure we can and in fact as we've been watching the bills -- to provide any amendments, it may lead us in that direction. Our concern I guess at this point in time is that with our reporting system we already have, we know what's there. To go forward and actually put something in statute today to mandate a certain quantity would be problem because I don't think your state is set far enough along to do that.

ASSEMBLYMAN SHER: Am I right that your program basically is to require 7,000 companies that utilize these kinds of materials -- you want to know what materials they use. You want to know how they store them. You want to know what kind of waste is generated. You want to know what is done to prevent accidental releases. Those are the kinds of activities that you're talking about under your pollution prevention. You don't actually have a program, do you, to try to accomplish reduction of use of chemicals by these companies?

MR. STEPHANY: Assemblyman Sher, of the 7,000 businesses we regulate, we make an annual inspection which means we go in there and find out about every bit of information you just stated. We encourage them and the real incentive here is that ten years ago we didn't have a lot of laws and so there was virtually no incentive to do this. Now there is a lot of incentives because of the cost of doing business.

ASSEMBLYMAN SHER: You encourage them to do what?

MR. STEPHANY: We encourage them to do source reduction

and recycling and waste minimization.

ASSEMBLYMAN SHER: You're just kind of a cheerleader, is that right?

MR. STEPHANY: That's correct, expect that, again, and I'm not saying that we shouldn't have some mandates...

ASSEMBLYMAN SHER: I'm just trying to find out what you do. I think the regulatory function you perform under existing state laws and perhaps county ordinances is trying to ensure that the materials that they use do, if they are hazardous, are handled properly or stored properly and not accidentally released and that the waste component is properly dealt with. Basically, you are a legal authority, trying to implement. Here we're looking at something a little bit broader than that, I think, through some of these earlier witnesses who -- and you do it you say on a voluntary basis, you try to encourage them -- companies want to stop using these expensive materials too, if they can. It's an economic incentive to do it. But you don't have any laws that you are implementing that -- to force companies to use less of these materials?

MR. STEPHANY: That is correct.

ASSEMBLYMAN SHER: Okay, thanks.

CHAIRWOMAN TANNER: Ten years ago, you mentioned that we didn't have all of these laws ten years ago. Ten years ago we were land-filling hazardous waste, we were -- we had no underground tank program. We had no laws to manage the kind of waste that we do generate. Now, we're talking about generating

less and your program sounds very good. And I think you probably could help us in -- to draft a reasonable kind of legislation if we need legislation. Thank you very much. Our next witnesses will be Mr. Mike Holmes, from Chevron, El Segundo, and Mr. Mike Barr, Pillsbury, Madison and Sutro. And one other gentlemen.

MR. DAVID ARRIETTA: Yes, my name is David Arrietta and I am a consultant to the Western States Petroleum Association. This panel is going to address pollution prevention from an existing situation through the eyes of the El Segundo refinery and then Mr. Barr is going to address our thinking as to where we should move forward on pollution prevention in the future.

CHAIRWOMAN TANNER: Wonderful, all right. Who is going to lead off? Mr. Holmes?

MR. MIKE HOLMES: Madam Chair and Members, I am going to move through this real quickly in the interest of time. My name is Mike Holmes. I am Manager of Chevron's El Segundo refinery. Our refinery is a world scale facility which converts 225,000 barrels a day of crude oil into gasoline jet fuel and other products. As you may know, Chevron is strongly committed to the concept of pollution prevention. Our Safe Money and Reduce Toxic Program, or SMART, has a goal of reducing hazardous waste by two-thirds, company-wide, by the end of 1992. Our corporation is participating in the EPA's Industrial Toxics Program and our Chairman and Chief Executive Officer is chairing the President's Council on Environmental Qualities Sub-Committee on Pollution Prevention. This morning I would like to describe to you how

pollution prevention programs are occurring right now in the El Segundo refinery. Many projects were voluntary. Many were catalyzed by data collection requirements. And some have become regulations. But they all allow the refinery to reduce pollution in the most cost-effective manner and they succeeded. All major petroleum facilities have extensive emission reporting requirements imposed by state and federal law. This data gathering has been the starting point for much of El Segundo's pollution prevention efforts. Assemblyman Connelly's AB 2588, The Toxics Hot Spot Bill, required an extensive inventory of toxics air emissions. As a refinery we compile this information, we prioritize sources for our own targeted, voluntary pollution prevention efforts. We focus attention on those sources that might pose the most significant risks. As an example, our waste water treatment plant was found to emit half of the refinery's benzene emissions. A construction project which will be completed by the end of the year will eliminate 98 percent of these emissions. A similar project was completed last year at our oil water separator which virtually eliminated benzene emission from this source. A smaller emissions source, but one that illustrates our focus on risk reduction occurred at our South Hill Tank Farm. These emissions originate from very small leaks in valves and pumps and from the seals on the tanks themselves. While the total emissions were small, they were located close to our fence line. These emissions were reduced by 40 percent through an aggressive inspection and maintenance program to check the pumps, seal,

valves and connections for small leaks and to correct these quickly. In this non-technological approach, the generation of small leaks was prevented and the overall risk from the refinery was reduced. Finally, El Segundo is one of the first refineries to eliminate the use of chromium in cooling towers. This was mentioned earlier. Chromium was used in small amounts to reduce corrosion. Our analysis showed that the trace chromium emissions and their associated risk could be eliminated. We installed new technology that allowed chromium to be replaced with a non-toxic chemical. This alternative technology has rapidly spread to become the standard for Chevron and the entire industry. In fact, eliminating chromium has become a regulation of the South Coast and the Bay Area Quality Management Districts. I'd like now to turn to our efforts to reduce solid toxic waste. As you know, waste disposal and handling are costly. Hence, Chevron's 65 percent reduction goals I mentioned earlier. The El Segundo refinery has done even more. Realizing the inherent opposition in land farms and their emissions and odors, we closed our land farm in 1988. Instead of land farming this waste, we found a way to use the waste in one of our refinery processes and recover the oils into products. Finally, we added several processes, including a first of its kind Thermal Distillation Unit to better manage solid waste. Over the past eight years these processes have reduced the amount of oily waste sent to land disposal by about 95 percent. The net result of these and other efforts, mostly voluntary, but which fit nicely with the SB 14

model, is that El Segundo has reduced the waste to land disposal by 60 percent in the last four years. And I assure you that that process is continuing. In short, right now there is a lot going on in our refinery to reduce emissions. Much has been accomplished and much is coming. The current report card seems to be the EPA's toxic release inventory created by the federal (inaudible) 3-13 report which requires us to report our toxic emissions to air, land and water. The waste range we reported in 1988 had been reduced by 53 if you exclude increased ammonia emissions due to new mandated pollution control equipment. If you include the new ammonia emissions, our total emissions have decreased by 18 percent. I might add that we're working hard to reduce these ammonia emissions. Another example of an emerging multimedia program is EPA's 33-15 Program. This is also known as the Industrial Toxic Project which targeted the release of seventeen substances of the (inaudible) inventory. El Segundo is participating in this program and has emissions of 5 of the 17 substances. Those five are benzene, toluene, xylene, nickel and isobutyl chloride. Nineteen-eighty-eight is the base year for this program per EPA guidelines. Reductions in emissions to all media from 1988 to 1990 was 60 percent. As you consider the role of pollution prevention I would urge you to keep two key thoughts in mind. First, don't penalize those facilities like ours that have already reduced emissions by adopting a mandatory percentage reduction requirement. Allow credit for things we've voluntarily done. Second, remember that these are

complex facilities. Most of the processes are very much innerconnected. Follow the SB 14 model which allows my engineer and operators to find the best and most economic way for our refinery to reduce emissions. Thank you.

CHAIRWOMAN TANNER: Thank you. Mr. Barr?

MR. MIKE BARR: Yes. My name is Mike Barr and I think I will be as brief as I possibly can. What we just heard is a good real world list of the tools available for pollution prevention and it goes right to the question of what is pollution prevention and what type of activities should be included. It's our strong belief that all available tools should be included from use reduction or elimination of toxic materials to process changes to treatment. Why artificially remove tools from our tool box? What we advocate is adding tools. Everything we've ever seen -- those 1,500 bills that San Diego has seen over the last few years - are pollution prevention in some manner or other. They are all tools to prevent pollution. Secondly, in the real world the tools are not so easy to categorize, more frequent inspection and maintenance as they've done in El Segundo -- a process or a treatment activity is chromium elimination, use elimination, or change. The lines were frequently sort of fuzzy and unnecessary to draw because what we want to encourage is all types of pollution prevention activity. In the real world, solutions often involve combinations of these tools. The elimination of that landform, for example, caused the necessity to go out and find a whole bunch of new tools. It's very important to have that

flexibility to choose among tools and among tools over time because over time some tools are better than others. And that raises directly the question of whether there should be a hierarchy of tools in the toolbox. That's sort of like saying are we going to mandate that in each case somebody use a hammer first or a screwdriver second or a saw the third. It almost conjures up an image of an article about pollution prevention builds a sawhorse and what you can imagine is someone throwing the hammer out the window and throwing the screwdriver at the dog and bending the saw before he ever gets to saw his first board. It's very important that we have all those tools available and all available to the engineers that do the work at these facilities.

Secondly, what is (inaudible) support and I'll be as brief as possible on this. We support a pollution prevention program with CalEPA that coordinates pollution prevention activities with CalEPA departments and boards with several major caveats. First, it should not be a command and control administrative program and it should not authorize citizens' suits for enforcement. We would like to see these new ideas be promoted and incentives provided including voluntary ones. It's definitely not a use reduction program. That's only one tool among many. It addresses environmental emissions, discharges and releases of toxic substances. It's not a workplace program. It does not target specific industry segments or individual facilities. It gives those facilities that are included in the program flexibility to implement cost effective and technically feasible

pollution prevention measures. You may have heard that term before. It's right out of SB 14 which is a program that we like a lot.

As to the office, which is the other key question that you posed at the beginning, Madam Chair, we also are very hesitant about any new agency but if an office is set up, what we would imagine as a small office with a coordination function, an administering function, monitoring function, reporting particularly to the Legislature and the public, on the more or less spectrum we prefer less. Thank you.

CHAIRWOMAN TANNER: All right, thank you. Assemblyman Sher.

ASSEMBLYMAN SHER: The first witness represents Chevron and your activity is a refinery, is that right?

MR. HOLMES: That's right.

ASSEMBLYMAN SHER: So your focus on pollution prevention is, as I understood your testimony, first of all eliminating certain kinds of materials that cause a problem like chromium. Is that right in the refining process?

MR. HOLMES: In that case, yes.

ASSEMBLYMAN SHER: And, secondly, the inevitable waste and emissions that are going to be created trying to reduce those and handle them properly. That's the way you look at pollution prevention. Is that right? You're not concerned with the end product that you make that we might want to see reduced by your customers, I take it. When you think about pollution, for

instance, you're talking about a manufacturing process, a production process and preventing pollution from that process. Right?

MR. HOLMES: Well, I guess where we start is what is the, what needs to be the end result? What are we talking about we need to do?

ASSEMBLYMAN SHER: Why did you decide that you needed to get rid of chromium?

MR. HOLMES: In that particular case for that particular problem, that was the solution. It turned out to be the most...

ASSEMBLYMAN SHER: But I mean probably the most dangerous for some reason. Is that right? Was there a law that told you to get rid of chromium or did you just decide that your company decide on its own that chromium was something that ought to be, if we can find a substitute or a different way to refine petroleum products without chromium. You knew it was dangerous. Is that right?

MR. HOLMES: At that point in time we basically led, we were one of the refiners that led in the decision that that was at that point in time...

ASSEMBLYMAN SHER: No one told you you had to get rid of the chromium?

MR. HOLMES: No, no but we saw that that was the right step to solve that particular problem. In some of these other examples, the elimination of the material that turns out to be not the most cost-effective answer but maybe changing the process or

doing something different.

ASSEMBLYMAN SHER: Well, then, I'll turn to the other witness. Do you resist legislation for known toxic and hazardous products to force technology to get rid of that? You said no command and control.

MR. BARR: Not in this program. Of course, what we've seen in the 1500 other laws is quite a bit of command and control. What this law provides us, Assemblyman Sher, is a chance to try something different, is a chance to try at the very least gathering those good ideas, which people like Chevron have done at their refinery, and making them available, as available as we can to other similar manufacturers in the industry and that's going to be one of the main results of the SB 14 process. An earlier witness testified, one of the things they've called in are the refinery plants. One of the reasons why is because they've been so successful in reducing the amount of toxics including very toxic materials which can include chromium.

ASSEMBLYMAN SHER: Is it your job, you're with Western States Petroleum, is it your job to work on the production end of it or do you deal with the product end?

MR. BARR: No, I'm a lawyer so I guess I deal with the paper part of it.

ASSEMBLYMAN SHER: Let me ask you since you're here, what are these companies going to do about -- I mean you make a toxic product. Your companies in Western States Petroleum, there's a chemical division of Chevron, as there is of a lot of

these other companies and part of the program here is to get your customers to use less of that. Do you support that? Is there an inherent conflict of interest in this pollution prevention?

MR. BARR: Well, we haven't found it yet. We have not found the inherent conflict yet even though we produced...

ASSEMBLYMAN SHER: Even though it exists in other kinds of activities. If we try to set up a program here to get companies to use less of the products that your member companies manufacture.

MR. BARR: It has occurred to us that that might be the effect.

ASSEMBLYMAN SHER: It has occurred to you but you don't resist that. You think that the state ought to have a program to do that.

MR. BARR: We're watching it very carefully. That's one of the reasons we're interested in this program and interested in this bill.

ASSEMBLYMAN SHER: Watching it very closely doesn't tell me a lot about what you're going to do about it. Are you going to support it or are you going to resist it?

MR. BARR: I mentioned what we favored. We favored an SB 14 type program and we think that that has very favorable results in all media, in all areas, across media and across the different products. And one of the things that's going to happen over the next six months or a year is that we are going to learn something in our industry as you learn about how this program

works.

ASSEMBLYMAN SHER: None of you resist a state program that would identify harmful materials and try to work out a way to get companies in their production end to use less of that material. You would support that I assume?

MR. BARR: I think that's what we're doing right now as part of the results.

ASSEMBLYMAN SHER: Yes, you're doing, frequently there's an economic reason to do it, I mean, and you're pursuing that but we're talking about companies who will stipulate. All your companies are doing a good job but we're talking about a state program that identifies these toxic materials and which will try (a) to get people to reduce their use of them and (b) to, if they are used, to minimize the waste component and to see that that's handled properly and not to be -- for example, you gave the case of where you disposed of some of this material, I think you called it a land farm. It's kind of an interesting farm. It's a farm for toxic wastes. We don't grow anything there but if we call that a toxic dump, I think it's more descriptive of what we're talking about.

MR. HOLMES: I guess I just, as a field manager, just one comment on your question. I guess you're really concerned about risk and exposure and this sort of thing. I would just encourage you to give us as much flexibility as we can. It may be that the elimination of a particular material might not be the answer. We may be able to come up with ways to handle that

material and it may be particularly cost-effective for society to continue to use the material and let us try to come up with a way to handle it in such a way that the risk and exposure is an acceptable level.

ASSEMBLYMAN SHER: I agree with that. You know these are a kind of performance standard approach. If we recognize that there's a risk from the release of this material either accidentally or as the waste component and we tell you that that's bad. We have to reduce it. We tell you we want you to reduce it 25 percent and then give you the opportunity to (inaudible).

CHAIRWOMAN TANNER: Mr. Sher, we have several more witnesses in our caucus.

ASSEMBLYMAN SHER: Okay, I just wanted to get the message across to my good friends here before...

MR. HOLMES: Thank you very much.

MR. BARR: Thank you.

CHAIRWOMAN TANNER: I thank you very much. Mr. Bryant Fischback will be our next witness. He's representing the Chemical Industry Council of California and Mr. Bob Lucas from California Council on Environmental and Economic Balance. Mr. Fischback was a member of the Hazardous Waste Management Council that helped put together 2948. Good to see you again.

MR. BRYANT FISCHBACK: Good to see you again, Ms. Tanner. Madam Chairwoman and members of this committee, I expect Mr. Sher will ask me the same questions when we're done here. I'm anticipating (inaudible). I'm a chemist with the Dow Chemical

Company but not for long. I'm going to retire at the end of this year so but I'm speaking here on behalf of the Chemical Industry Council of California which is an organization of Dow plus 76 other companies, chemical companies, with regular members and associate members also.

I'd like to leave the committee with three conclusions today. These are number one, there are a lot of laws in place that are leading us, laws, regulations, voluntary programs and industry initiatives that are leading us toward and accomplishing pollution prevention. Also, secondly, that actions by the state should foster and enhance those kinds of things and that the fundamental concept driving pollution prevention should be reducing risks to human health and the environment and reduction by reducing the releases to the environment and by reducing the amount of degeneration of hazardous waste and it should not focus on hazardous materials, use reduction or toxic use reduction as its been called today. I'd like to elaborate on those three points.

As you know our company participates in a lot of the present laws and regulations such as the 2588 hot spots bill, the 3777 risk management prevention programs and the N.P.D.E.S. and SB 14, the source reduction law. And I did bring along our company Source Reduction Evaluation Review and Plan with me and also the Performance Report Summary that's required also and I'd like to leave this with the committee, if I may, so they can look and see what one does look like and what it does accomplish. This is for

the Dow Chemical Company. In addition, there are at least three voluntary programs that are in place today. About two years ago, Mr. Riley, the Administrator of E.P.A. came to the CEOs of the nine or ten major chemical companies in the United States and asked them if they would voluntarily propose projects that would reduce emissions to the environment and these nine or ten CEOs said yes, they would and they could do it anyway they wanted to but it had to be a program that could be monitored and be in place and Dow decided that they would monitor their leak, their leaks from valves and from pumps and they would do the pumps on a monthly basis and their valves on a quarterly basis to see how much was leaking and tighten up on those kinds of things. That worked very well. Also as a part of this, they decided that they would enter into the regulations by negotiation or what's called "reg neg" implementation with the N.R.D.C., with the E.P.A. and with industry and they have come up now with fugitive emission regulations that look like they're going to work very well as a negotiating tool. It was so successful it led to the 3350 program. The 33 percent reduction, voluntary reduction by 1992 and the 50 percent reduction of those 17 priority Sierra chemicals that was alluded to in the last talk. Dow went even further in this voluntary program and they said that not only would we reduce the 17 but we would reduce all 121 that were on the Sierra list by 33 percent by 1992 and by 50 percent by 1995 so we took the whole list within Dow, those that we made and turned out to be 121 materials on that list.

There's a third program that's voluntary and that is the Chemical Manufacturer's Association program called Responsible Care. It has six elements, codes of management practice in it and one of those is Pollution Prevention Code and I have a copy of that and I could leave that with you also on what the purpose is and how we're approaching pollution prevention as a code of management practice. This has been quite successful. It's in its formative stages now but it's not a command and control but it's rather a, I'd call it the carrot and the stick, the command and control being the stick, a voluntary program being more the carrot. We are using our resources, we're going further than what is required as I showed you with the 3350 program and I think that these programs and voluntary efforts are very good and I'd like to see that as a part of any kind of pollution prevention that we would have in the state also. We have people and equipment now and resources, money, committed to do these things and any new programs that we take on will also add to the burden of what we're doing and I think that a new direction might take away from the present move toward pollution prevention which is going very dramatically I think in our industry and I think that when you consider the laws that you might want to build around this that you take that into consideration.

The third point I wanted to bring up was the toxic use reduction as not being the focus of pollution prevention. As you heard in the last talk, I agree that control of the hazard rather than control of the use is the primary important thing to do here.

I was talking to Mr. Gray last night and he did say that, in his talk also, that this would be very limited, it would be limited in scope. I would say that toxic use reduction should be very limited in scope. The cause of a lot of industrial accidents, and accidents in the home right now are caused by falling from stairs and ladders and we don't think about saying let's reduce the use of stairs and ladders. Let's find a way of making those things more safe. Let's reduce the hazard. We have training in these programs to do that and we do that within our industry. We train very heavily on how to use these materials, how to handle them and so forth and I think that there are places where the use precludes the controlling of the hazard and in those cases, I think use reduction is appropriate. An example would be lead paint. I think you cannot control the hazard of lead paint on the walls from children eating it and, therefore, in that case the reduction of that material is appropriate but can you control the hazard well enough in its use so that approach it from that direction but if you can't, then I would say...

CHAIRWOMAN TANNER: You've opened up a box here.

MR. FISCHBACK: Yes, I could see Mr. Sher ready to...

ASSEMBLYMAN SHER: We're running out of time so I really won't be able to do this justice but you're telling me that Chevron made a mistake in eliminating chromium. What they should have done was to control the release of it? Is that right?

MR. FISCHBACK: If they could have done it well and had the same effect, why not?

ASSEMBLYMAN SHER: Pollution prevention, your position and the position of your company, Dow Chemical, translates into reduction of emissions.

MR. FISCHBACK: Emissions, releases and the generation of hazardous waste.

ASSEMBLYMAN SHER: Right, through total use this up but it does not include the universe of pollution prevention, does not include getting rid of the material entirely.

MR. FISCHBACK: I said in very limited places.

ASSEMBLYMAN SHER: How about DDT, CFCs? Those are things, you know, CFCs and air conditioning, if you do it very carefully you can prevent that from being released but you would say that it's wrong then, it's the wrong approach to mandate the elimination of CFCs. In my own case, I have a district where they use a lot of chemicals. These organic solvents TCA, TC which did escape in the release. You would say the wrong approach is to mandate that those be eliminated and pushed for use of a substitute for these cleaning agents. The right approach is to encourage the users of these things and to help them manage them and make sure that there aren't any releases.

MR. FISCHBACK: My answer to that is no. I did not say that. I didn't want to make a blanket statement like that. What I say is that if you could control CFCs to where they not escaping and were not causing the ozone problems that we're having, that might be a (inaudible). We cannot do that. That was mandated because we could not see a way of doing that, I do not have a

problem with that situation because I said if you couldn't control the hazard effectively then indeed you might go to that method, of course.

ASSEMBLYMAN SHER: There are some gray areas, intermediate cases, where you can control it if you do it very carefully and maybe the bigger companies can do it but where you know, inevitably there's going to be releases...

CHAIRWOMAN TANNER: Mr. Fischback did respond to your question.

MR. FISCHBACK: As an example, just in the paint example, as an example, we do make latex paint and people say that latex paint is very environmentally good because it's non-toxic...

ASSEMBLYMAN SHER: All right, I'll agree with the chairwomen. You say that where it's appropriate, eliminating the use of these things is okay? You would support that but don't do it where...

MR. FISCHBACK: Under very limited circumstances and we've seen some of it. I said lead and paint was a good example but I want to mention that we do make latex paint and from that paint. that paint, latex, is made from styrene and butadiene. Styrene is very active material. Butadiene is on the top 65 Governor's list. To reduce the use of styrene and butadiene means the reduction of the amount of paint that could be made latex. I don't think that's what we're talking about and that, of course, is at the heart of the chemical industry. We use those materials, we handle them very judiciously, very safely but from virulent

materials and that's the way chemistry works. They're very reactive to produce a very benign material which people use and should be using. At any rate, not to belabor the point any longer, I do feel very strongly that we should be pursuing a program that pulls together the existing state programs, the existing industry initiative and that empowers the industry to reduce their releases to the environment and the generation of hazardous waste. And the best example I can give, this is one I heard the other day, where a gentleman said that when he was 17 and going with his girlfriend in high school, her father came home one day and had just bought a new car and he said I just bought a new car. And the family, older days, the family said my goodness, that's great you know and he handed the keys to the young man and said why don't you and my daughter take it out and put a few miles on and see what you think of it. Just like that. Now, that became a voluntary thing on the part of the young man as to how he was going to treat that car as to how he was going to treat that car. If the father had said you mustn't drive over 35, I want you back in 20 minutes, etc. etc., pass all these laws, it would have been a different thing. The message would have been entirely different. The message he got was he trusts me, he loves me, I'm almost in this family already, a lot of messages and he treated that exactly that way. That's the kind of a program I'd like to see here.

CHAIRWOMAN TANNER: Well, we loved you all very much 215 years ago and look what happened. The releases that I have gone

not only into the water but into the air, into the soil, have been devastating. We haven't even begun to clean up those contaminated sites, as you well know.

MR. FISCHBACK: You're right. That really is a shame.

CHAIRWOMAN TANNER: So, love and trust is good and volunteerism is especially good but I would hope that industry would work with us to develop good legislation.

MR. FISCHBACK: I think that SB 14 is very good that way. It says you will study your waste streams, you will look at where you can reduce. You make the plans to do it and we want to see the plans and we'll check you out in four years and see how well you've done and that's very good. I think it's a good method.

CHAIRWOMAN TANNER: Thank you Mr. Fischback. Yes.

MR. BOB LUCAS: Thank you, my name is Bob Lucas representing the California Council for Environmental and Economic Balance. First, I'd like to say that the views of the Chemical Industry Council as expressed by Mr. Fischback are very similar to those of the Council and I'm pleased to be here with Bryant today to help express these views.

We believe, first of all, that pollution prevention as we embark down this road, further down this road, shouldn't be viewed as starting from ground zero. The point's been made by a number of people who have testified today that considerable work has already been undertaken in the area of environmental regulation and California, in particular, as distinguished from most of the other states of the nation has a very comprehensive

framework of environmental regulation from which we would be moving in any new attempt to better define what pollution prevention pollution and how to accomplish it in the state. In acting in accordance with those programs as well as with voluntary programs, much has already been achieved in the state and the SB 14 program which has been raised several times today is also an excellent example of how California can act as a leader in the nation to actually accomplish source reduction of hazardous waste as opposed to what other jurisdictions may be doing and talking about how to accomplish that.

Pollution prevention insofar as the Council is concerned is a multimedia concept that reduces or eliminates pollutant discharges to air, water or land and includes development of environmentally acceptable products, changes in processes and practices, source reduction, beneficial use and environmentally sound recycling.

We would also concur with the statements you heard earlier from representatives of W.I.S.P.A. that we should not restrict a toolbox that is available to industry in order to comply with such a mandate and we believe it would be counterproductive through use of definitions or other types of limiting features to define those tools which are acceptable in this context but not acceptable in another context when the end result of using them might be the same and one might be certainly more in the interest of industry and in the environment and everyone to follow.

Third, I'd like you to, I'd like to remind you of the great diversity of industry in California. We've had some testimony today from representatives of industry that take the materials as they find them, so to speak, as raw materials delivered to them by nature that they must refine. They do not select the materials that they take in and that accrued before they refine it. They have to deal with what they have. There's other sets of people that have testified to day that take materials that are manufactured on the market, as they are required through the manufacturing process. There are other people that do not manufacture items but instead may have maintenance or operational purposes and that may dictate the need for the materials that they use in their operations. We have to avoid the urge to be overly simplistic in their approach to the problem and recognize this diversity in any solution that we come forward with.

With regard to what pollution prevention is or isn't, I would also like to stress that we believe that chemical use reduction does have a place in pollution prevention that at least insofar as input chemical substitution has been part of any definition of source reduction. It's been part of any definition of pollution prevention that we have used so far but it has been included as an option and as one item to choose amongst an array of different tools that could accomplish the same goal. We do not believe that it would be productive to isolate individual chemicals and prescribe mandates as to their use or non-use.

Rather, we believe that the benefit of SB 14, for example, which includes use reduction and chemical input substitution as an option is in the mandate to review the processes by which these chemicals are used and allow the industrial community, at that point, the people who are doing it on-site in that process, in that company to make the decision as to what makes the most economic sense and what makes the most technical sense to achieve the purpose.

As to whether an office is required or not, we had concluded earlier that because of the myriad programs that are in existence, the state would benefit by a coordinative activity at the agency level to review those aspects of those programs that deal with pollution prevention and so to that extent, we believe that it does make sense for the agency to organize an office to administer that program. It's an administrative function and we believe it makes sense. However, we do have some caveats on that. We are concerned with its function, that it be supportive of the current program and regulatory boards, commissions and department programs that are in place, that it not be contradictory certainly, that it would help to resolve multimedia issues and that it would not develop itself into a large staff function with additional costs. Our view of this office would be that it could be accommodated hopefully within current budget constraints and that it would be a facilitating type of office rather than as a new program requirement.

First among those chores we would place evaluation...

CHAIRWOMAN TANNER: Mr. Sher has a question.

ASSEMBLYMAN SHER: This I think is a point really gets down to kind of the nub of the hearing at least as it relates to SB 51 and the pollution prevention office proposed in CalEPA. I think some people would argue if that's all it does it's really not worth having, you know. It becomes kind of window dressing. I think your view, and I'm glad you clearly stated it and I think it may be my view too is that the Air Resources Board and the air districts, they're the who that worry about the emissions or releases to the air. The Water Board deals with discharges to the water, the Integrated Waste Management Board deals with solid waste and you're saying don't create a pollution prevention office in CalEPA that has statutory authority to deal with those things. You would leave those programs where they are so all it would be would be someone who can knock heads when there is or coordinate but why can't the director do that? I mean this whole program was sold on the basis. Why do you need a pollution prevention office? Isn't that what the director of CalEPA is supposed to do? In my bill on CalEPA, we actually proposed and this may be in the current one that there be kind of a counsel of environmental advisors consisting of the chairs of these various agencies and you could jawbone through that. Why do you need, would it really do anything if it's as constrained as you've just suggested with no budget within the existing budget, no additional personnel, no additional statutory authority. Why don't we just forget it?

MR. LUCAS: The management options that may be available

to the agency secretary at that point I believe are best addressed by the office of the agency. How they organize to address this is to a great extent within their jurisdiction to come forward with the recommendations. We concur that consolidating that function within an office with the agency would facilitate that direction. Whether there are other options that might also do that I believe is something that should be taken up or addressed to the secretary.

ASSEMBLYMAN SHER: All I would suggest is if you create this office, Mr. Strock, the director, is going to want to have three or four more \$95,000 a year jobs for the director of the office and the deputy director and I don't see that you're getting your return for that if all it's going to do will be as limited as what you suggest.

MR. LUCAS: We do suggest that a primary function of this office should be to evaluate current federal and state programs and this is an important function because it will lead, we believe, to the type of information necessary to give you the basis for the next step as to whether we need to move forward with a new pollution prevention program.

CHAIRWOMAN TANNER: But, you know, we will be looking at SB 51, Mr. Sher's bill, and possibly develop a bill along the way. Right now my feeling, as I said before, we agreed with CalEPA and I thought that CalEPA was designed to coordinate all of the agencies and sort of an umbrella program to coordinate and so we'll see. The reason for this hearing, of course, is to get

everybody's idea and impressions. I would like to -- you weren't here for the testimony. You're not going to ask any questions. Yes, Ms. Wright. Make it quick, we have one more.

ASSEMBLYWOMAN WRIGHT: Are you harassing me?

CHAIRWOMAN TANNER: Yes.

ASSEMBLYWOMAN WRIGHT: You've got to be careful. I'm sorry that I wasn't here for the full presentation because I would have liked to hear it. What I would like to ask since they do represent basically business, do you feel at this time and point that we should really go forward with the separate office of pollution prevention or rather should we at this point in time monitor the legislation that's already in place such as SB 14 and then later on look at this again?

MR. LUCAS: We would look at the question in two pieces. The first is what type of administrative organization makes the most sense for the state to organize internally to deal with questions of cross media issues of pollution that pollution prevention raises. And the second, what responsibilities and authority do you then assign to that office? We have agreed with the express need for the office but we have stopped short at this point of endorsing the need to move forward with a brand new program requirement.

CHAIRWOMAN TANNER: You did answer that question and I am sorry that you weren't here to...

ASSEMBLYWOMAN WRIGHT: I am too because the other meeting probably was not as interesting as this one was.

CHAIRWOMAN TANNER: Really, I would think so. And so I thank both of you gentlemen and our last witness, we should have asked you Dr. Greenberg to come along with the other environmental groups but we didn't. This is Alvin Greenberg from the Planning and Conservation League.

DR. ALVIN GREENBERG: Madam Chair, members of the committee, thank you. Maybe there's a benefit to going last, get the last word or something, I don't know. I am a toxicologist and I do consultation in toxicology, health risk assessment and hazardous waste management. I serve in a volunteer capacity for the Planning and Conservation League.

It was three weeks ago that I was asked by Secretary Strock to be a member of the review committee that's undertaking the 90 day review of the Department of Toxic Substances Control. He also asked me to Chair the Pollution, Prevention and Waste Minimization Task Force and so I find myself now knee deep in pollution prevention and waste minimization. It's kind of interesting that the first time I gave a presentation on pollution prevention was in 1980. I was Assistant Deputy Chief for Health for Cal OSHA at the time. The next request I had to talk about pollution prevention was five years later, the next opportunity was two years later, the next opportunity was one year later and, of course, now the idea has really caught fire and I'm very much involved with it as are other individuals.

The purpose of our task force, which is conducting an expedited review of pollution prevention and waste minimization,

is not so much to resolve the issues or any controversies. Certainly where we are able to reach consensus and perhaps move or narrow the differences of opinion, we'll be able to do that and we'll be happy to do that but more so to frame the issues and identify potential viable pathways toward pollution prevention. Towards that I've distributed three pages. The first is our meeting schedule. It does not have the first two meetings on it which we've already had but the next two pages identify seven major issues that are addressing. The first is pollution prevention and a major sub-issue under pollution prevention is definition. That is probably where we are going to be least able to reach consensus and serve best to frame the issues and perhaps narrow the scope. Number two, measurements is an important concept program evaluation. Number three, the promotion of waste minimization, I deem that the carrots so number three you'd find the incentives and the carrots. The next page, number six, regulatory tools, there's the stick. We must have thought this was so important that we put two Rs in regulatory, I apologize for that typo. Number four is a critical area, organization of effort. Here is where we deal with the cross media influences and where or whether or not a office of pollution prevention should indeed exist and what functions and what roles it might take. And, finally, a critical area, number 7, education and communication. The key to the future to provide the expertise we need and to change the mind set towards pollution prevention. With that, I thank you and I'll answer any questions.

CHAIRWOMAN TANNER: That's wonderful. Great testimony. As I understand, your task force will be finished and we'll have a paper on November what?

DR. GREENBERG: We will try to have a paper on November 20th. We won't turn anything out we're not proud to put our names on but that's our goal.

CHAIRWOMAN TANNER: And then that paper will be made public and will be available for the public, for the Legislature, for industry, for the administration, of course. Is that...

DR. GREENBERG: That is correct.

CHAIRWOMAN TANNER: Mr. Sher.

ASSEMBLYMAN SHER: The task force was created by the director of CalEPA?

DR. GREENBERG: Yes, and the director of Toxic Substances Control, Bill Soohoo.

ASSEMBLYMAN SHER: In CalEPA and in the new CalEPA...

DR. GREENBERG: No, this task force is a citizen task force just created three weeks ago.

ASSEMBLYMAN SHER: Okay, is part of your charge to make recommendations to the director of CalEPA?

DR. GREENBERG: Yes.

ASSEMBLYMAN SHER: So you will be making recommendations about the issues we've been talking about today?

DR. GREENBERG: Yes.

ASSEMBLYMAN SHER: And then the director's free to go run with those or not?

DR. GREENBERG: That is correct. Our review committee may also hold some public hearings in January to get some input on, some further input on our recommendations. We plan on having a final report to Secretary Strock by the end of this calendar year. Our review committee may hold some additional public hearings in January and then perhaps produce an addendum in February.

ASSEMBLYMAN SHER: When do you go out of business? Was that part of your creation when you would go out of business?

DR. GREENBERG: It looks like we'll go out of business middle or end of February.

ASSEMBLYMAN SHER: There's no time limit. In other words, you're telling me that your existence doesn't end with this filing of the report, the final report, with the director who created you. Is that right?

DR. GREENBERG: It does end, it was proposed to end on December 31st. The review committee, however, is contemplating an extension of a month or two and then go out of existence.

ASSEMBLYMAN SHER: But you'll seek from the director an extension of your life for this additional addendum purpose. Is that...

DR. GREENBERG: That has been proposed.

ASSEMBLYMAN SHER: Okay, but you wouldn't do it without his telling you to do it? You're his creation, isn't that right?

DR. GREENBERG: That's right. We are suggesting it. We may do if he doesn't agree with us but I think he'll agree with

us.

CHAIRWOMAN TANNER: I think it's possible. Thank you very much. Mr. Sher, Mr. Helliker remained here and if, before we leave, if you have some additional questions. He left things fuzzy, is that correct?

ASSEMBLYMAN SHER: Right and I think obviously that the EPA and the director are going to be waiting now for the recommendations of this task force, am I right?

DR. HELLIKER: This task force is similar to what William Riley did at EPA when he first came in. He took a 90 day review and it's focused principally on the toxic substances program.

ASSEMBLYMAN SHER: We know that Mr. Strock likes the federal model but I'm interested in knowing exactly what...

ASSEMBLYWOMAN WRIGHT: Please don't.

ASSEMBLYMAN SHER: Well, I know, there's a difference of agreement but...

MR. HELLIKER: This task force is, like I said, focused principally on the toxic substances program. We view pollution prevention to be a broader...

ASSEMBLYMAN SHER: But by the beginning of the year when the Legislature comes back into session, is it likely that the director will have a position on legislation that he would like to see enacted on this subject during 1992?

MR. HELLIKER: Yes.

ASSEMBLYMAN SHER: A specific recommendation?

MR. HELLIKER: Yes, and those recommendations will include the input from this Toxic Review Committee.

ASSEMBLYMAN SHER: And so at this point the issue is open. I mean SB 51 sits there, it's pending but we're going to have some definitive recommendations from the Environmental Protection Agency on this subject for legislation in 1992?

MR. HELLIKER: Yes.

ASSEMBLYMAN SHER: Thanks.

CHAIRWOMAN TANNER: All right, thank you very much.

MR. HELLIKER: Thank you.

CHAIRWOMAN TANNER: Thank you ladies and gentlemen. I think it was a very worthwhile hearing. I'm still anxious to talk with a number of people about pollution prevention. Thank you.