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Chair

Mr. Bob Mills

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● (0935)

[*English*]

The Chair (Mr. Bob Mills (Red Deer, CPC)): I would like to start off, and I apologize for starting late. I think you all know where everybody has been and why our tardy beginning this morning, with the Clean Air Act being tabled and the members having a briefing. So I apologize to our witnesses, but we would like to carry on and get through all of the witnesses.

Perhaps I could ask you to be very conscious of a maximum of 10 minutes each, and then our members will ask questions, and again we'll keep the time as tight as we possibly can. We had a good example on Tuesday, where all of the presenters were under that—about seven minutes—and that helped us a great deal. So if you could do that, it would help us a lot.

We'll just follow the order that's on the order paper and begin with Environmental Defense from the U.S.

Mr. Denison.

Dr. Richard Denison (Senior Scientist, Washington, D.C. Office, Environmental Defense (USA)): Thank you very much, Mr. Chairman and members of the committee, for inviting me here.

I am a senior scientist with Environmental Defense in the U.S. That's the other environmental defence, the one spelled with an *s* rather than a *c*.

I am here to describe the results of research I'm engaged in that is comparing policies that address industrial chemicals in the U.S., the European Union, and Canada. This research is being done in cooperation with Pollution Probe here in Canada. I'm identifying what I've called best practices, which is basically elements of each of those three systems that can be either combined or utilized to identify the best approach, or a better approach if you will, in each of a number of areas.

I would like to give you a few highlights of some of those best practices. The views are entirely my own at this point. I have a report I'm developing that is currently in review and that I would be happy to share with the committee when it is a little further along.

Each of the points I make are related to the recently completed domestic substances list categorization process. They are intended to further the ability to act on that new information that has been derived from that exercise. Let me highlight a few of these in the few minutes I have.

The European Union is about to finalize its REACH proposal, which is a very significant overhaul of its chemicals policy. It will replace several dozen other statutes, and it will address a large number of the existing chemicals that are already in commerce, as well as new chemicals coming into commerce. The next 11 years or so after enactment are going to produce an enormous amount of new information about literally tens of thousands of chemicals. It is critical that Canadian agencies that are dealing with chemicals have the ability to tap into that information and to utilize it in their own evaluations of these chemicals. This is an enormous opportunity that the CEPA review should take advantage of.

I have a couple of specific proposals on this. The first is that because companies are going to be submitting information to the authorities in the European Union, CEPA should require that those companies also submit information to Canadian authorities for chemicals they either manufacture in, or import into, Canada. That should not be an added burden, since that information is already being provided. It would provide direct access to that information for Canadian authorities.

Second, it is important that steps be taken to ensure the Canadian authorities have full access to the information being collected under the REACH proposal. That includes confidential business information. In my opinion, CEPA should authorize Canadian authorities to negotiate with the European Union so they can have full access to the information under REACH.

A second area of priority for the CEPA review should be to ensure that the information that agencies have access to in Canada about the manufacture, import, and use of chemicals is up to date. Many of you may know that the recently completed DSL categorization process was forced to rely on literally 20-year-old data on the production and use of many of the chemicals it had examined. That is because the last time that information was systematically updated was when the DSL was created in the 1984-to-1986 timeframe.

It's critical that this information be updated, and that it be frequently updated, because there is a great deal of evidence about the massive fluctuations in the production of individual chemicals. My report will go into this in quite a bit of detail.

● (0940)

Literally, even from year to year, there's significant fluctuation, and it's critical that agencies dealing with and trying to track these chemicals have access to the latest information. I would recommend a combination of frequent, regular reporting, as well as a requirement that companies report whenever there's a significant change in the production or use of the chemicals they are utilizing.

Third, it is extremely important, especially in the context of DSL categorization follow-up, that the burden on government to require additional information generation by industry be as minimal as possible. A great deal of the DSL categorization process resulted in chemicals that were identified as either being in or out, based on relatively low confidence information, or were not able to be classified because of a lack of information. It's very important, I think, that Canadian agencies be able to follow up and require the development of information to complete that picture as they go into this next phase.

Unfortunately, section 72 of CEPA imposes a fairly significant burden on government that essentially says that unless you know that a chemical has the potential for posing a risk, you cannot ask for additional information. That is a classic catch-22 situation that impedes the ability of government to develop information on large numbers of chemicals. While that burden is significantly lower in Canada than in some other jurisdictions, it nevertheless poses a burden that is going to impede the progress of DSL categorization follow-up.

Fourth, a key innovation in the REACH proposal in the European Union is to increase the flow of information about chemicals throughout the supply chain of chemicals. The producers of those chemicals don't often currently have very good information about how their chemical is actually being used, who is using it for what purposes. Likewise, the customers of those suppliers often don't have good access to risk information, the properties of the chemicals, the ways in which those chemicals need to be handled.

What REACH does is essentially compel a two-way flow of information along that supply chain. I think those provisions are very innovative, they address a very real problem in chemicals management in the world today, especially in a much more globally integrated system. CEPA review ought to look carefully at those provisions within REACH and look to see what aspects of that might be adopted here, to really make sure that flow of information is occurring.

Finally, let me end with one other point. DSL categorization has identified something in excess of 4,000 chemicals on the DSL that are going to require follow-up screening assessments. That is an enormous number of chemicals to be handled, if you look at it on an historical basis, and it is critical that the ability of Canadian agencies to address those chemicals in a prompt and efficient manner be there. That's a function of resources that are devoted to this; it's also a function of a recognition that government has a key role to play in making sure this happens.

We would suggest that CEPA should be looking at the need for milestones to ensure that this process advances promptly and efficiently in terms of timelines, and numbers of chemicals perhaps, that need to be assessed in a given period of time. The agencies are already doing a lot of work to prioritize that list and try to get at the ones that are of most concern first. I think that's very good and should be followed up with an assurance that those chemicals are handled in as efficient a manner as possible.

Those are some of my initial thoughts. I'd be very happy to answer questions, and also to work with the committee beyond this in terms of your review of CEPA over the next several months.

Thank you.

● (0945)

The Chair: Thank you, Mr. Denison. You mentioned your report. If you could send a copy to the clerk, it could then be distributed to all members.

Dr. Richard Denison: I'd certainly be happy to.

The Chair: Thank you.

Mr. Lloyd, from the Canadian Chemical Producers.

Mr. Gordon Lloyd (Vice-President, Technical Affairs, Canadian Chemical Producers Association): Thank you.

I'd like to thank the committee for the opportunity to participate in this round table about the international aspects of the CEPA review.

When I presented to you last May and a couple weeks ago, both times I described CCPA and Responsible Care, so I won't do that again. Just briefly, I'll note that Responsible Care was a set of initiatives that we started in Canada in the 1980s to meet public concerns about chemicals, their impact, and their safety. I think it's important to note in this international context that it has spread from Canada to 52 other countries now. It is also a recognized part of international chemical strategy, and that was most recently recognized in the Dubai strategic approach to international chemicals management. In my written remarks I have set out the quotes on this from the Dubai declaration.

There are two things I'd like to talk to you about today. First is how Canada's chemical management policy fits in internationally, and in that I'll add a couple of comments that aren't in my remarks. I largely agree with most of the points Richard made, and I think there's really good room for dialogue on those. I'll also briefly mention amending CEPA so we can recognize assessments of other jurisdictions. In case I don't get around to that, Jack Soule is going to deal with that in more detail. But my basic point is that we think this is an important point and we fully support what he is going to say.

Turning to the main point about CEPA and the international context, Canada basically manages chemicals like other OECD countries. Most have notification requirements for new chemicals so that these are assessed by governments before they're commercialized. There are some differences in the rules in different countries, but by and large they aim at the same approach and seem to have satisfied the public about chemical safety for new chemicals.

Like Canada, other OECD countries have inventories of grandfathered chemicals that were in commercial use before the new-substance notification requirements came on stream. These are sometimes called “existing chemicals” to distinguish them from the new chemicals that are under the new-substance notification requirements. In Canada these are on our inventory called the domestic substances list, the DSL.

In the 1990s a common theme emerged among OECD countries. There was a sense of general public confidence in the safety of new chemicals, maybe some improvements on the margins, particularly in recognizing assessments of new chemicals done by other jurisdictions. But the big issue was public concern about the grandfathered chemicals—whether they'd been assessed and whether there is enough data on them, the existing chemicals. Different approaches took place in different jurisdictions and countries to look at the issue.

First there was a concerted effort within the OECD to assess high production volume, and these became known as HPV chemicals. This approach was probably adopted most strenuously in the U.S., and it was stimulated in part by the Environmental Defense Fund in an environmental organization report that came out, and also by agreement by the U.S. Chemical Manufacturers Association that more needed to be done in this area after they'd looked at it. This resulted in a U.S. HPV challenge program. A similar program was also adopted, although somewhat less ambitiously, by the International Council of Chemical Associations, which the CCPA is a part of.

This work on HPV chemicals supplemented and very much accelerated the work in the OECD. I think the U.S. HPV initiative has worked very well. It has spread internationally; it's achieved significant results. In the OECD about 1,000 substances have been assessed. The U.S. program has collected data on about 2,200 HPV substances and has added another 500 to the list; they still need to do assessments on these. But there is a wealth of information there that will flow into what we need and will be accessible for DSL categorization and screening.

In Canada we address this existing chemicals issue by the DSL categorization and screening initiative. When I appeared before you a couple of weeks ago I described in detail my understanding of the program. The government has yet to announce what the program will actually constitute. Maybe that will be announced today in the clean air package, maybe not—we'll find out later. I won't repeat what I said then, but in the written notes that I've presented to the committee, I have summarized the conclusions I had about what I expect the program to achieve.

The main point, I think, is that in the DSL Canada has taken a very practical approach of using criteria such as persistence by accumulation, inherent toxicity, and potential for exposure to determine which substances require assessment and which do not.

● (0950)

There has been tremendous cooperation and working together by industry, by environmental groups, and by governments in making the DSL categorization process work to date. In the next stage, the assessment stage, which will be even more challenging, we expect and hope that this cooperative approach will work.

The Canadian approach is not without its challenges and concerns. A key one for CCPA is that the government maintains adequate rigour in the risk assessment process for the assessments it will have to do. We believe this can be done the necessary assessments that are required are completed. That will require international cooperation. And a lot of what Richard said in that context I fully support. It's reassuring, I think, that a sound science basis that we feel needs to continue is firmly established in CEPA and in long-standing government policy. And that should stand in the way of taking shortcuts, and it should help to maintain the risk-based approach that we need for chemicals management that is the foundation of this in Canada and internationally.

Having talked about the OECD, the U.S., and Canada, I'll also talk about REACH. This is another major approach to dealing with the grandfathered or existing chemicals issue that's been taken by the European Union—and it's lasted over seven years—in trying to develop its legislation.

REACH stands for registration, evaluation, and authorization of chemicals—a very catchy acronym. Canada has taken a practical approach that we believe will lead to about 2,000 assessments once they've set aside things they have current information on and also once they've set aside things that are no longer in use. I think the 4,000 Richard talked about will probably be cut in half. Now, contrast that with REACH. I think REACH will look at applying registration requirements to over 30,000 substances.

There are some key points that lead to questioning the workability, practicality, and usefulness of REACH. From what I've heard from European colleagues, I think it's reach may exceed its grasp, and it may, by trying to do too much, achieve very little.

REACH is not yet law. We've heard from the European Union for the last number of years that next year it will be law. I believe that statement is true this year, but we're going to have to wait and see; we've heard that before. Eventually it will be law, but it's taking a long time in coming, while in Canada we've actually moved forward and accomplished something.

One of REACH's main complexities is that multiple companies registering the same substance must enter into a consortium to share the costs. European colleagues tell me that about 25,000 consortia may have to be established within 12 months of REACH coming into force. One company told me—and this is a very major company—that they expect to have to be involved in 1,000 consortia. The workability of this may very well bog down REACH.

These consortia are there to ensure that the costs of getting the information, including testing for registration, will be borne fairly by the companies involved in a substance. The results may actually be to constrain the flow of information that could otherwise be used for Canadian assessments.

I agree with Richard that it would be very useful if we could get information from REACH that would help us in DSL. The way REACH is structured may constrain that.

One of the points he made is that we should have a basis for negotiating with Europe for the government to obtain confidential information. Well, we actually do have that in our legislation now. It's section 316. Industry and the Canadian government were able to convince the European Union to adopt a similar clause. It's referred to as the "Canada clause" in REACH. So that ability to share information between Canada and Europe is already there.

We hope it will happen. The way they treat information flows in these consortia may stand in the way of that.

If you contrast that with the benefits of the U.S. and OECD HPV programs, they have definitely facilitated sharing information internationally, and that's benefited the DSL program to date and will benefit it further in the future. REACH, unfortunately, may have exactly the opposite effect.

There are a lot of other complexities, uncertainties, and unresolved issues with REACH, and I won't go into those. You really have to have an expert who's completely involved in keeping up with these as they change. We've advised our companies that are exporting into Europe to make sure they consult experts from Europe who are fully engaged in this, because it's incredibly complicated.

In concluding this part of my comment, I'll say that Canada does have similar legislation to other OECD countries. It's very similar, especially for new substances. For grandfathered substances, Canada, like other countries, is trying to improve public confidence in chemical safety. We, unlike Europe, seem to be taking a practical approach that has and should achieve more positive, workable results. We definitely will benefit from what the U.S. and the OECD are doing for HPV chemicals; however, we are taking a more comprehensive approach than the Americans, because we're addressing more than HPV chemicals, and that's definitely a step forward.

● (0955)

Let me address my second point briefly. I would like, as I said, to recommend that CEPA be amended so that Canada can recognize assessments of other jurisdictions. Under section 75 of CEPA, we already can recognize assessments when other jurisdictions assess a substance and substantially restrict it. CEPA should also provide an ability to recognize assessments when other countries approve a substance. We've led the way with DSL categorization and screening, and I think other countries need to follow. Australia has actually led the way—and Jack will talk about this in a bit more detail—on recognizing assessments of new chemicals, and I think we should follow suit there.

Another point I can talk about, if you'd like, is one raised the last time I was here, the toxicity issue and the question of whether changing it in Canada would cause conflict with international treaties. You noted, Mr. Chair, that this might be talked about more today. I've looked at it in more detail, and if there's interest in the committee I can go into it further.

But that's it for my comments. Thank you very much.

The Chair: Thank you, Mr. Lloyd.

I have this little grey box that tells me you went 10 minutes and 52 seconds.

Mr. Gordon Lloyd: I'm sorry for the last 52 seconds.

The Chair: Just so you know, I know what you're doing.

Some hon. members: Oh, oh!

Mr. Gordon Lloyd: I was looking at my watch as well.

The Chair: Let us welcome back Mr. Soule, from the Industry Coordinating Group for CEPA.

Mr. Jack Soule (Executive Director, Industry Coordinating Group for CEPA): Thank you very much, Mr. Chairman, and thank you, members of the committee, for offering the opportunity to the Industry Coordinating Group for CEPA to present some further ideas around possibilities under CEPA.

As I mentioned before, the Industry Coordinating Group for CEPA is a network of about 24 associations involved in fairly detailed discussions with Environment Canada and Health Canada on matters concerning new and existing substances. We don't cover the full gamut of industry, but we have a pretty significant cross-section of membership.

The CEPA ICG has also been participating in international discussions with Environment Canada and Health Canada that have been going on for a number of years. This has resulted in both formal and informal arrangements for the sharing of assessment data among regulators to streamline the process for the notification and assessment of new substances.

There have been some fairly significant movements in this area. Bilateral arrangements have been established with both the U.S. Environmental Protection Agency and the Australian authority, NICNAS. We started off with an arrangement, called the Four Corners Agreement, that allowed for the extensive sharing of data between Environment Canada, Health Canada, and the U.S. EPA. It worked reasonably well, except that, as we mentioned on Tuesday, there have been confidentiality problems for the U.S. EPA sharing it with Canada.

There's been a fairly active program with the Australian authority; we've shared assessments. When Canada does an assessment, a company that wants to introduce the same substance into Australia can send the Australian authority the dossier that Environment Canada has worked up. They get quite a quick movement through the Australian scheme when that happens, and a lower fee for the notification process as well. So there's a fairly significant value in this process.

We've learned a lot from the OECD new chemicals task force. Data sharing between these government authorities has resulted in each authority learning more about each other's system, and the way they assess. It's advanced the area of assessment quite substantially.

There is a shortcoming, though, in the current CEPA, which Gordon alluded to, that is preventing Canada from optimizing the benefits from these relationships. As I'll explain, we should learn from what Australia has done and modernize CEPA to allow recognition of foreign assessments. Whenever a new chemical is introduced for commercialization globally, there's a succession of similar but not identical notifications that occur in the various countries where the developer of that substance wishes to commercialize it.

Each country has its own somewhat unique set of notification requirements intended to determine if this new substance will be safe for its intended uses. Gordon mentioned there's a fair similarity, because a lot of countries under the OECD umbrella have notification schemes and they've tended to get fairly close together on the requirements for submitting a new substance notification. But the U.S. is quite different, and there are other differences.

Although a detailed comparison of assessments has been conducted on the same substances, a review of assessments was done by a number of OECD countries to learn how far apart they might be on the judgments they would have taken unilaterally on the same substances under different circumstances.They concluded that even though they might start with slightly different dossiers and have slightly different approaches, the results are usually quite comparable.

A fair degree of confidence was developed in this process, that even though they're looking at substances a little differently, the results are very similar. So the concept of looking at substances and the judgment being relatively equivalent seems to be fairly good.

This work is continuing under the OECD new chemicals task force and has moved on to a work-sharing pilot for prospective substances, new substances that are just entering the market. It's called the parallel process. It's evaluating live notifications to determine the potential to expedite conclusions that can be accepted by multiple countries. The objective of these exercises is a mutual acceptance of notifications, a step toward mutual recognition arrangements.

● (1000)

During the multi-stakeholder consultations on the new substances notification regulations held from 1999 to 2000, there was general support among the multi-stakeholders for the continuation of the active role that Environment Canada and Health Canada have been playing internationally, particularly in the OECD program.

One of the recommendations of that consultation was that the two departments should formalize their strategy for their future international role, to ensure that there will be continuing support. The result was the publishing of a document, *Finding Common Ground,* that was published by Environment Canada. It's also on their website, and there is an excerpt from it that I've included in the appendix. It's a very ambitious but very hopeful document that I think certainly has a good degree of value. Canada has been seen as leading in this area in the OECD, as a representative for sharing data and moving forward efficiencies in this notification process.

Another aspect of this international activity has been the establishment of formal bilateral arrangements that I've mentioned for sharing data related to the assessment of new substances, in a way that preserves confidentiality claims.

The two arrangements that are the most notable are with the EPA and with NICNAS in Australia. Through the dialogue with the Australian authority, we became aware that they had anticipated the value of being able to recognize another country's assessment program as having credibility equivalent to their own program. This came out of the data-sharing back and forth. They realized this was a workable process and they wanted to capitalize on it. NICNAS refers to these as approved foreign schemes. They have included sections in their legislation that define their ability to obtain maximum value from the assessment work of another country, without compromising their sovereignty. The government still has the ability to decide whether or not to accept it, but if they want to accept it, then it allows for expediting this judgment. One of the key sections I've included in appendix 2.

So the recommendations of the industry coordinating group for CEPA are that the opportunity of the current CEPA review should be utilized to add wording to the next revision that would allow Environment Canada and Health Canada to benefit from those assessments conducted by other countries, to the degree that the departments believe appropriate, up to and including full acceptance. The recognition of the credibility or equivalence of another government's assessment capabilities will be extremely helpful in improving efficiency of the notification of new substances, without diminishing Canada's sovereignty under this process.

That's what the CEPA ICG would promote. The idea is that it would be completely in the government's hands as to whether they wanted to recognize a country as such. It would be based on experience of reviewing their assessments and really coming to the conclusion that another country's judgment is relatively equivalent to what we have done here in Canada.

Thank you very much for your attention.

● (1005)

The Chair: Thank you very much, Mr. Soule.

We'll now go to Ms. Thorpe, from Clean Production Action.

Mrs. Beverly Thorpe (International Director, Clean Production Action): Thank you very much, Mr. Chairman.

I'm Beverly Thorpe from Clean Production Action. I'm based in Montreal. My organization is registered in the U.S., and we work internationally. Our organization exists to promote sustainable product design and green chemistry, and we work with progressive companies, governments, labour, citizens groups, and basically anyone who's pushing safer materials and chemicals.

I'm a founding member of the UNEP's cleaner production program, and I sit on the advisory committee of the Green Chemistry network, based at York University in the U.K. For almost the last seven years, I've been following the EU chemical policy, particularly now in the final months of the REACH negotiations.

What I would like to talk about in the next few minutes is this whole issue of substitution, which sort of carries on from the discussion on assessment. I believe we could strengthen CEPA by putting in the substitution principle and defining in much better terms what pollution prevention really means.

The Canadian Environmental Protection Act defines pollution prevention as a range of options, but gives no priority to the substitution principle, and in fact this may entrench chemical users in ongoing hazardous chemical use. Our primary tool to realize the adoption of safer chemicals is that of pollution prevention planning, triggered within CEPA by the designation of a chemical to be CEPA-toxic. The definition of pollution prevention is “the use of processes...materials, products...that avoid or minimize the creation of pollutants and waste”, but there's no explicit reference to actual material substitution. Therefore, the response to a CEPA-toxic substance could just as easily be an end-of-pipe control that simply minimizes emissions.

What is the substitution principle and how is this different? In my paper, I give a definition that has been more or less agreed upon within Europe: “Substitution means the replacement or reduction of hazardous substances in products and processes by less hazardous or non hazardous substances or by achieving an equivalent functionality via technological or organizational measures.” In other words, a hazardous chemical can be replaced by a safer or non-hazardous chemical, or the chemical's function in the product or process can be met through product redesign or system change.

I don't have time to go into the work we're doing with companies that have actually moved into green chemistry and a totally different paradigm shift into safer chemicals, but the one thing that has come back through a lot of the progressive companies we work with is that there is very little regulatory support, catalysis, or incentive to level the playing field with other companies.

Regarding the problem with pollution prevention versus the substitution principle, in my paper I give the example of the use of PERC in dry cleaning in Canada. PERC has been listed on the priority substances list since 1989, due to its ubiquitous presence in groundwater and its toxicity to humans: it's toxic to the liver, the central nervous system, and is probably carcinogenic to humans, which of course is why it was designated CEPA-toxic. It is found in the breath and breast milk of lactating women who work in dry cleaning establishments and has been found to contaminate bread, meat, and butter from neighbouring shops.

In 2000, PERC was added to the CEPA 1999 list of toxic substances, and in February 2003 regulations were drawn up. However, the purpose of the regulations is to reduce PERC releases to the environment from dry cleaning facilities and not to push for substitution. The regulations mention nothing of substitute solvents or processes, but mandate that reductions of emissions will be attained by requiring newer, more efficient, and often expensive dry cleaning machines, minimizing spills of PERC, and managing the collection and disposal of residue and waste water.

I can understand that the intent was good, but the problem I found with the regulations was that, considering that Environment Canada had done its own research and found alternatives to PERC, such as wet cleaning, CO2 machines, etc., there was no outreach or dedicated dissemination of this information, or training given to the dry cleaning industry.

● (1010)

On the substitution issue, I circulated a copy to Eugene, which I found very interesting. The Chemical Industries Association, the Confederation of British Industry, and Greenpeace, believe it or not, have come to a common position, namely, that “substances requiring an authorization within REACH... should be replaced with less hazardous alternatives wherever and whenever practicable”.

This statement has been used quite a lot within the European Parliament and by many of the companies, retailers, unions, and worker health and safety folks. They are pushing for a strong substitution clause within REACH. Just last week, the European Parliament went through a second presentation. The European Parliament is scheduled to vote on the new legislation on November 14. On December 4, EU governments will vote on the same question. People are hoping that conciliation will happen so that we have a rollout of REACH in April next year.

I have also taken the European Council's common position and worked in the statement by the European Parliament of last week, in both English and French. I've highlighted the reference to substitution within the authorization process. The authorization process is dedicated to chemicals that are carcinogens, mutagens, and reproductive toxins. They include endocrine-disrupting chemicals as well as persistent biocumulative toxic chemicals.

Any chemical that triggers that level has to go for authorization. What happens in the authorization process? If you are a producer or user of one of these chemicals, you have to apply for an authorization. An application for authorization must include information on identity, plus an analysis of alternatives that considers their risks and the technical and economic feasibility of substitution. Throughout the review and assessment of authorizations, there is a differing but definite theme of substitution.

Note that this has already been agreed to by both the socialists within the European Parliament and the industry associations. The common position is to ensure the good functioning of the internal market, while assuring that the risks from substances of a very high concern are properly controlled, and that these substances are eventually replaced by suitable alternative substances or technologies where these are economically and technically viable.

What I have distributed shows there's considerable emphasis on the need to supply substitution planning, the need to demonstrate that there are no safer alternatives available on the market . How do you define “safer”? Well, there are a lot of guidance documents on this subject. One would be that the substance in question does not itself trigger the criteria for authorization. They open up the process on supplying information on safer chemicals through Internet and third-party input.

Last week, the European Parliament reaffirmed the position they had adopted at their first reading in November 2005. The environment committee argued that substances that cause cancer, reproductive problems or persistent problems in the human body should not be authorized unless three conditions are met: one, if “suitable alternative substances or technologies do not exist”; two, if “it is demonstrated that the social or economic advantages outweigh the risks of these substances to human health or the environment”; or, three, if “the risk is adequately controlled”. Moreover, the authorization given for the use of a substance should be limited to a five-year period.

● (1015)

In conclusion, I believe in adopting a strong definition of substitution. This way we will not be dealing with end-of-pipe controls but actually moving to innovative green chemistry. In Europe great strides are being made in switching to inherently safer chemicals. We're also seeing a lot of demand by downstream users of chemicals, who want more information not only about the chemicals they put in their products but also about available alternatives. We believe that by putting a stronger mandatory requirement for substitution planning within CEPA, you will actually see a movement to much more innovative and green chemistry in Canada.

Thank you.

The Chair: Thank you very much, Ms. Thorpe.

We'll go on to our final witness, the Environmental Working Group, U.S.A., Mr. Cook.

Mr. Kenneth Cook (President, Washington, DC Office, Environmental Working Group (USA)): Mr. Chairman, thank you very much.

My name is Ken Cook. I'm president of the Environmental Working Group, a non-profit research and advocacy organization in Washington, D.C. I'm delighted and honoured to be able to testify before you today, and I very much appreciate this opportunity to do so.

As I mentioned, my organization uses research to bring issues to light in the public realm. In Canada, we may be best known for a database we prepared and put on the website that lists the names and the amount of money that all the subsidy recipients for agriculture in the United States receive. This website is enormously popular with Canadian farmers.

Not long ago, my organization commissioned the most extensive laboratory tests ever undertaken to examine the extent to which toxic industrial chemicals, pesticides, and pollutants end up in people. Scientists have been studying pollution in air, water, and land for decades of course, but it's only relatively recently that we've turned attention to the types of pollutants that get into all of us.

We sent blood samples from 10 Americans to a Canadian laboratory in British Columbia and analysed them for over 400 toxic chemicals—synthetic industrial compounds, pesticides, and other pollutants. In just those 10 people, we found over 287 industrial toxins, with an average of about 200 in each. If we had invested more than the $10,000 we spent per sample, we undoubtedly would have found many more contaminants in these people.

We found the notorious dioxins and furans, highly carcinogenic compounds, which are the products of industrial waste combustion and vinyl production. We found long-lasting flame retardants, which have been observed to impair attention, memory, and nervous system functions at extraordinarily low levels in animal studies. We found chemicals that have been used for decades to repel stains and convey waterproof capacity to fabrics and carpets, and that interestingly enough seem never to break down in the environment, unlike even dioxin or DDT or PCBs. We also found DDT breakdown products and PCB breakdown products, even though these compounds of course have been banned for decades in the United States. We found heavy metals, such as mercury and lead, which can cause devastating irreversible damage to the brain and nervous system at very low levels. In fact, the more we study them, we're concerned that lower and lower levels can still cause damage.

We don't know very much about these 10 Americans. They were anonymous donors. We received the blood samples through the research program of the American Red Cross. We do know they were not industrial workers. We are certain they were not exposed while working on the farm. We know they were not exposed by virtue of any consumer products they purchased, by the water they'd consumed, or by any exposure that might have been related to where they chose to live.

The only thing we really know for sure about these 10 people is that they were born in August and September of 2004. You see, we found these 287 chemical pollutants in the umbilical cord blood of newborn babies.

While the exposures were occurring, they looked something like this. I brought posters depicting this imagery to the United States capital when we released our report there and I was stopped by the Capitol Hill guards who told me that protest materials of this nature were forbidden. We had to have an escort from representative Louise Slaughter, a senior member of Congress, bring us into the building. Since I'm not familiar with Canadian custom—although I know you're known to be very polite—I brought it on computer today.

In America, industrial pollution begins in the womb. Our distinguished colleagues—and I'm proud to be here on the panel with them—from the chemical industry could not begin to tell you which of the chemicals produced by the companies they represent end up in the cord blood of Canadian babies. They couldn't begin.

● (1020)

The amount of these toxins in cord blood of course is quite low—sometimes in the parts per billion range—but over the past few decades we've learned in toxicology and analytical chemistry that even very low levels of compounds, if the dose is administered at the wrong time in the development of a baby, for example, can cause severe damage. So don't let anyone tell you that the dose makes the poison until they make it clear also that the timing of the dose and the person or the subject that is receiving the dose and their genetic vulnerabilities are also not important.

The real question, I think, at this stage is, why is it that we are only now learning such rudimentary things decades into the chemical revolution, such as the types and amounts of pollutants to which even babies are exposed in the womb? Why is that so new, decades later? Why do we lack even basic information about the safety of those exposures to individual toxins? Why do we have next to no information about the potential risks faced by those exposed, even in the womb, to multiple carcinogens, which we found in this study; multiple neurotoxins, which we found in this study; multiple agents that can affect the hormone system? Why is that the case? Then, of course, there is the big question that all the panellists have touched upon: why have we exposed babies in the womb to industrial chemicals before we are certain that those exposures are safe?

All those questions cause us to commend our colleagues at Environmental Defence Canada for the bio-monitoring studies they have been conducting—and I know they have more in the works—in their *Toxic Nation* series of reports. They underscore the need to protect vulnerable populations, notably the most vulnerable, who are also least able to protect themselves: babies in their mother's womb, infants, and young children.

Environmental Defence's work and ours also makes clear the need to have effective timelines for regulatory action to place the burden on industry to demonstrate the safety of chemicals, not on the government to demonstrate their harm decades after we have them come onto the market. In that regard, I would encourage you to look at legislation that was introduced last year in the United States that mirrors the 1996 law that reformed our pesticide policies. It's called the Child, Worker, and Consumer-Safe Chemicals Act.

The main point I would make about this law—and I'll close then, Mr. Chairman—is that there are chemical companies in the United States that make pesticides and make industrial chemicals for all kinds of purposes, the very same company. On one side of the building, if you will, these companies are required to conduct over 100 health and safety studies before the pesticide is allowed on the market, because we know they will be consumed by people in food or inhaled if they're used in the home or in the garden or on the farm. So those studies are conducted. On the other side of the hall, in these very same companies, there's virtually no requirement for significant pre-market testing of industrial compounds that our study—as well as many others that are now beginning to appear—of umbilical cord blood, belatedly, and other human populations shows end up in people, and yet we have very little information about their safety.

So I would encourage you to see these proceedings certainly as I see them, as a historic opportunity to modernize science, to bring it up to date and make it protective of public health. We're certainly looking for Canada to lead the world in this exercise.

Mr. Chairman, thank you very much for your time.

● (1025)

The Chair: Thank you, Mr. Cook.

I failed to introduce our two resident people here as well: Mr. Arseneau and Mr. Clarkson from Environment Canada and Health Canada. Certainly, as you know, you're part of any discussion that goes on here, and members can address questions there.

Because of the shortness of time, I would ask members to really try to be very specific. Let's try to get in as many questions as we possibly can in the time we have, and if you don't feel that you have to use the full 10 minutes, don't.

We'll start with Mr. Silva and Mr. Godfrey, who are sharing.

Mr. Mario Silva (Davenport, Lib.): Thank you, Mr. Chair.

I want to thank all the witnesses for coming forward. I very much appreciate the discussion.

Maybe our American guests who are here, particularly Dr. Denison and maybe Mr. Cook, could answer these questions.

In looking at what the Europeans have done, at the Canadian CEPA legislation, and at what the Americans are up to, the differences in terms of how we in fact are able to approach it, whether the burden of proof is going to be on the industry or on the government, I would imagine one would agree more with the European system. But what are the advantages and disadvantages of both systems?

Dr. Richard Denison: Thank you for that question.

I would say there are significant differences with regard to the relative role of industry and government in these different proposals. One contrast with the REACH proposal, which is really quite revolutionary in its approach, is to put the burden on the industry of not only developing information but actually assessing that information and deciding what risk management practices are needed. Those latter two are traditionally government functions and are a hallmark of every chemicals program, no matter whether it is pesticides, pharmaceuticals, or what have you.

The government's role in REACH will be largely an oversight role, to check on that information and ensure that it's accurate. One of my concerns about REACH, frankly, is that the process by which those evaluations of the industry submissions take place has no timelines and no particular pace at which it has to happen. I actually think there are a lot of innovative aspects to REACH, but there are elements like that one that are really of significant concern to me. It really is a matter of trying to find the best features of these different systems and bringing them together and making sure they work in the cultural and regulatory context of a country. That is the challenge, and my report is really trying to grapple with that issue.

Mr. Mario Silva: There are completely different systems at play: the European, the American and the Canadian.

In terms of levels of exposure, are Canadians or Americans more susceptible to being exposed to chemicals than Europeans?

Mr. Kenneth Cook: I'm sorry, I didn't quite hear the question.

Mr. Mario Silva: In terms of levels of exposure to chemicals—and you have done your studies across whether it's the European, the Canadian, or the American—are Americans or Canadians more exposed to chemicals under the present regime that we have?

Mr. Kenneth Cook: The truth of the matter is we're at a very early stage in trying to understand these things. My understanding is that Health Canada is initiating a bio-monitoring program in the very near future, so we'll begin to get some metrics for Canada, very important ones. I salute them for initiating that work and for the support behind it.

We are really at the very beginning of trying to understand what's going on here. Let me give you a good example. There is a chemical called PFOS. It's one of the ingredients used in the manufacture of Teflon. There is a similar one, PFOA, that was used in the manufacture of Scotchgard. The companies, particularly 3M, when they started looking at their Scotchgard ingredient, conducted a study because they wanted to evaluate their workers, who they knew were exposed and had blood levels of this chemical, against clean blood from the population. They purchased blood from blood banks all over the United States. When they sent those samples to the lab, there was no clean blood. Then they went to Europe. Then they went to China. The clean blood they found, that they felt most comfortable comparing to the adult workers' blood, was blood that was collected from army recruits during the Korean War and archived.

What we really have here is the very beginning of studying pollution in people. We need to know a lot more about it. We need to know when the contamination begins. We thought for many years that most of these pollutants didn't pass the placenta, that it was protective. It was not the case.

To be honest, when you have a small non-profit organization like mine, with a budget of less than $4 million, doing the first study that's detailed and extensive looking at umbilical cord blood, that's a pretty sad state of affairs in terms of the science for the industry, if you ask me. So we're only beginning to know, sir.

● (1030)

Hon. John Godfrey (Don Valley West, Lib.): I want you to know that in Canada we use members of Parliament to try these things out on. I've had my blood measured. I'm in the competition for the most toxic politician in the country. That's one I don't want to win.

I'm going to make two assumptions, Mr. Denison, then I want to direct my question to Mr. Arseneau.

I am assuming—indeed, I would assume that this is generally true for the panel—that there's a huge industrial advantage to having common regimes, where possible, across large areas. That is to say, if you can get something that is good for the U.S., good for the European Union, and good for Canada, that's an industrial advantage. I'm also assuming that basically the three systems that are in place are systems of goodwill. That is to say, they are not corrupt. We can basically have some confidence in both the data and the assessments, even though they may be done in different ways, which would then mean we could have some confidence if we shared it.

Is that a good going-in assumption, Dr. Denison?

Dr. Richard Denison: Yes, I'd say so.

Hon. John Godfrey: All right. So now my question is to Mr. Arseneau.

If that's true, and you look at Dr. Denison's suggestions about getting access to the data, as you go through this, is there any reason we shouldn't do these kinds of things? Secondly, is it technically possible to get to the level of sharing so that we're not getting into ambiguity, so that we can actually adjust our systems to take this kind of information into account? Thirdly, can we do this mostly by regulation, or will this require absolute amendment of the act for us to do this data and assessment sharing?

Mr. John Arseneau (Director General, Science and Risk Assessment, Science and Technology Branch, Department of the Environment): Thank you very much for that question, Mr. Godfrey.

Obviously there are advantages in being able to gain access to test results and information on chemicals that are generated internationally. Canada's work in this area, to date, has been actually quite ambitious, to be able to try to secure and make use of international information with respect to toxic end points, uses of chemicals, production, etc.

Through the OECD we have been working very closely with other countries to....

Mr. Chairman, I did not plan that fire alarm.

The Chair: We have a clerk checking out what's happening.

I'm sorry, we have to leave. We probably will have to adjourn. I really apologize to our guests.

The meeting is adjourned.

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